

***Appendicitis: The Etiology, Hygenic and Dietetic Treatment  
by John H. Tilden, M.D.***

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APPENDICITIS

THE ETIOLOGY, HYGIENIC AND DIETETIC TREATMENT

BY JOHN H. TILDEN, M.D.

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"Impaired Health," 2 Vol.; "Cholera Infantum," "Typhoid Fever,"

"Diseases of Women and Easy Childbirth," "Venereal Diseases,"

"Appendicitis," "Care of Children," "Food," 2 Vol.; "Pocket

Dietitian."

=====NOTICE\*=====

You have recently purchased some of my earlier writings, hence the following suggestion:

As my regular readers know, I do not favor the use of \_protein\_ and starchy foods in the same meal. The only exceptions that I ever made to this combination was the use of potatoes with meat in the same meal and the serving of milk with starch. I still allow the occasional use of potatoes with meat for well people, for the potash content of the potato helps with the digestion of these two foods. \_But the combination of milk with starch I discontinued some years ago.\_

In some of my former writings this correction has not yet been made, therefore we are asking our readers to keep this in mind when studying those particular works. Where you find milk in combination with starch, change the milk to teakettle tea, which means hot water with a little cream (which is fat, not protein) and a small amount of sugar.

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\*(This notice was slipped inside the book, printed on a small, glossy sheet. Editor)

## THE ROAD OF ILL HEALTH

To understand the cause of appendicitis we must go back to the beginning, and when we do we find that it starts just where all diseases start, namely, \_where health leaves off! \_When the laws of health are broken for the first time, it can be said that the individual has started on the road of ill health. How fast he will travel and just what will be the character of the disease he meets with will depend upon his constitution, inheritance, environment and education.

## APPENDICITIS

### CHAPTER I.

This cut represents the back view of the cecum, the appendix, a part of the ascending colon, and the lower part of the ileum, with the arterial supply to these parts.

"A, ileo-colic artery; B and F, posterior cecal artery; C,

appendicular artery; E, appendicular artery for free end; H, artery for basal end of appendix; 1, ascending or right colon; 2, external sacculus of the cecum; 3, appendix; 6, ileum; D, arteries on the dorsal surface of the ileum."--Byron Robinson.

The reader will see how very much like a blind pouch the cecum is, 2. The ileum, 6, opens into the cecum, all of the bowel below the opening being cecum, the opening of the appendix, 3, is in the lower part of the cecum.

The arterial supply to these parts is great enough to get them into trouble in those people who are imprudent eaters, and it is also great enough to save the parts when diseased if the patient has the proper treatment.

For the benefit of the lay reader I will say that the blood-vessels represented in the cut are the arteries; there are also veins, nerves, and lymphatics imbedded in the folds of the peritoneum, accompanying and paralleling the arteries, but they are not shown in the cut.

The peritoneum is the lining membrane of the peritoneal cavity. It is well to remember that there is nothing in the peritoneal cavity except a little serum. The layman will say that the bowels are in this cavity, but they are not; they project into the cavity, and their outside covering is the lining membrane of the peritoneal

cavity, but they are truly on the outside of the cavity, and to enable the layman to understand the anatomy so that he can apply it when reading of the disease, I shall describe the course of an ulcer: If an ulcer starts in the bowel it first eats through the mucous coat which is the lining membrane of the bowel then through the submucous coat, which is the second layer or coat of the bowel, then through the muscular coat, which is the third layer of the bowel; this brings the ulcer to the serous coat or peritoneum. When the peritoneum is eaten through it is called perforation, for it means that there is an opening into the peritoneal cavity, and, unless the cavity is cut into, cleaned and properly drained death will take place in a very short time. I say death is inevitable without surgical treatment. In this I appear to be more radical than the most radical, for the best authors have much to say about perforation, diffuse peritonitis, and of patients who live after perforation, as though it were a common occurrence; I say they are mistaken.

## CHAPTER II

\_History: \_Appendicitis did not become popularly known until about twenty years ago--not till it was christened and baptized in the blood of the surgical art. Of course the appendix has always been subject to inflammation, just as it is now, but in former years the disease we call appendicitis bore various names, depending upon the diagnostic skill of the attending physician. Typhlitis and perityphlitis were the names used to designate the disease now

covered by the word appendicitis.

The diseases that appendicitis may be confounded with and must be differentiated from are obstruction, renal colic, hepatic colic, gastritis, enteritis, salpingitis, peritonitis due to gastric or intestinal ulcer, enterolith, obstipation, invagination or intussusception, hernia, external or internal, volvulus, stricture and typhoid fever.

The old text-book description of typhlitis and perityphlitis is so similar to the description of the present day appendicitis that it is not necessary to reproduce it. The symptoms given show conclusively that they are really one and the same.

In the surgical treatment of appendicitis the American profession has taken the lead, and the mention of this disease brings to mind such names as McBurney, whose name is given to an anatomical point--McBurney's Point--midway between the right anterior superior spine of the ileum and the umbilicus, Deaver of Philadelphia, and Ochsner and Murphy of Chicago. Those who are interested in the surgical treatment of the disease can look into the methods of these men, and many others. The medical literature of the day abounds in exhaustive treatises on the subject of appendicitis and its surgical treatment.

We are living in an age that will not be properly recorded unless it

be entered as \_The Age of Fads.\_

Following immediately on the announcement of Lord Lister's antiseptic surgical dressing which rendered the invasion of the peritoneal cavity comparatively safe, came the laparotomy or celiotomy mania. When it was discovered that opening the abdomen was really a minor operation, it was soon legitimized by professional opinion, and rapidly became standardized as a necessary procedure in all questionable cases--in all obscure cases of abdominal disease--where the diagnosis was in doubt. The result of popularizing and legitimizing the exploratory incision, was to cause those who failed to resort to it, in doubtful cases, to be in contempt of the court of higher medical opinion, and to license those of a reckless, selfish, savage nature to play with human life in a manner and with a freedom that would make a barbarian envious.

The wave of abdominal operations that swept the country in the last quarter of the nineteenth century was appalling. The slightest pain during menstruation, or in the lower abdomen, in fact every pain that a woman had from head to toes was put under arrest and forced to bear false witness against the ovaries. It was a very easy matter to trump up testimony, when real evidence was embarrassing, to foregone conclusions; hence pains in obscure and foreign parts took on great importance when analyzed by minds drilled in the science of nervous reflexes, sympathies and metastases.

Normal ovariectomy (removing normal ovaries for a supposed reflex disease) swept the whole country during the eighties and threatened the unsexing of the entire female population. The ovaries had the reputation of causing all the trouble that the flesh of woman was heir to. Oophorectomy was the entering wedge, since then everything contained in the abdomen has become liable to extirpation on the slightest suspicion.

Those surgeons of greater dexterity or savagery, I can't tell which, prided themselves in operating on the more difficult cases. Taking the ovaries out was a very tame affair compared to removing the uterus, tubes and ovaries; hence the surgical adept embraced every opportunity for an excuse to remove everything that is femininely distinctive.

About 1890 appendicitis began to attract the attention of those surgically ambitious. The ovariectomy or celiotomy expert began to feel the sting of envy and jealousy aroused by those who were making history in the new surgical fad--appendectomy--and they got busy, and, as disease is not exempt from the economic law of "supply always equals demand," the disease accommodatingly sprang up everywhere; it was no time before a surgeon who had not a hundred appendectomies to his credit was not respected by the rank and file, and an aspirant for entrance to the circle of the upper four hundred could not be initiated with a record of fewer than one thousand operations.

Thanks to the law of supply and demand the ovaries retired and gave women a much needed rest. If they had continued to misbehave as they had been doing before the appendix got on the rampage, the demand for surgical work would have exceeded the supply of surgeons.

Diseases of all kinds are very accommodating; as soon as a successful rival is well introduced they retire without the least show of jealousy, showing that they are not strangers to the highest ethics, their associations to the contrary notwithstanding.

There are many well written articles on appendicitis, but I believe the monograph by A. J. Ochsner, M. D., is decidedly the best, and when I refer to the best professional ideas on etiology, pathology, symptomatology and treatment I have in mind the opinions set down by Ochsner, for he has taken more advanced grounds in the medical treatment of this disease than any other physician I know anything about in this or any other country. If his "A Handbook on Appendicitis" brought out in 1902, had come out three years before, I should give him credit for being the first man on record to proscribe the taking of food in appendicitis, but as my first written advice on the subject was in the July, 1900, number of A Stuffed Club,\* two years before his book, I shall give myself the credit for being the first physician to announce to the world \_the only correct plan of treating the disease and suggesting the probable cause \_which the intervening time has proven to be correct. The only reason I have for making this announcement is that in all probability no one else will ever do so, and, as it is just and

right that I should have the credit, I do myself the honor. The general rule is that if a new method of treatment comes out, or a discovery of importance is made other than in the regular professional channels, it will either be ignored or adopted (cribbed is more expressive) and no credit given. This is a small matter, and of no special consequence, yet it carries a meaning.

\*(Editor's note: "A Stuffed Club" was the newsletter or journal published by Dr. Tilden for many years.)

Previous to 1890 the most popular treatment was probably the giving of opium; although this was far from ideal, "it had the advantage of taking away the patient's appetite, relieving pain, and putting the bowels to rest."--Ochsner. If there were any way to prove it, we should find that next to surgery opium is still the most popular way of treating the disease.

To-day there is no other disease which brings surgery so quickly to mind as does appendicitis, especially if the victim can stand for a good, large fee. It is only human I presume, for surgeons to defend the operation. They believe in it, and are not willing to investigate, for they are satisfied. They know or should know that ninety per cent of all the surgery practiced to-day has no excuse for its existence--no more right to be protected by the laws that weld society together than has any other graft that exists by the grace of public ignorance and credulity. This operation has for some

time been the largest single item of revenue for the profession.

Thirty-four years ago I was called in consultation to see my first case of what was then generally recognized as perityphlitis or typhlitis--inflammation of the connective tissue about the cecum. It was a typical case of what is today called appendicitis. I advised the doctor to cease his fruitless endeavors at securing relief by giving drugs, and give the patient nothing but water. As I remember now, it took about four weeks for this patient to recover. This plan--positively nothing but water--has since been a part of my treatment in all such diseases.

### CHAPTER III

\_Etiology: \_To understand the cause of appendicitis we must go back to the beginning, and when we do we find that it starts just where all diseases start, namely, \_where health leaves off! \_When the laws of health are broken for the first time, it can be said that the individual has started on the road of ill health. How fast he will travel and just what will be the character of the disease he meets with will depend upon his constitution, inheritance, environment and education. I do not mean by education, school or book education; I mean intuition--that knowledge which evolves from home life and habits. I mean, has he any self-discipline? Does he know anything about self-denial? Has he any conception of a control higher than impulse? Has he been brought up to know that there is a limit to the

gratifying of wants and desires beyond which, if he goes, he must make good with laws that are as exacting as they are invariable? Does he know that nature shows no favoritism? Does he know that there are laws regulating his intercourse with men--with everything--that exact absolute justice from him? And that, if he takes advantage of weakness or ignorance because he can, or if he secures an advantage through credulity or trickery, he must settle for the crime before a judge who is absolutely just! If he has this education, which is a constitutional ingrafting from the mother's blood, fructified by a like potential father, he will be almost immune from all diseases. This is an education that can not be secured unless the individual has the prenatal and environing influences to differentiate these static attributes of his nature, and, if he has, the result will be that all these qualities will come to him because "like attracts like." In an atmosphere where others attract evil this individual attracts good. The same is true on the physical plane. Those who have diseased bodies always have disease making habits, hence they attract from a given environment all the disease making impulses, while those of healthy bodies have health imparting habits, and attract from the same environment the health impulses for which they have an affinity.

The constitution, inheritance and education of all mankind will vary from the highest to the lowest types. As we go down the scale from those with ideal physical and mental health, we see man becoming more and more the victim of disease.

It is no uncommon thing to find people of seeming intelligence who appear surprised when told that they have brought upon themselves such a vulnerable state of health from wrong eating and care of their bodies that they are in line for appendicitis, pneumonia, typhoid fever, bowel obstruction, or blood poisoning. In such types blood poisoning would surely follow a complicated fracture of a bone--a fracture where the ends of the bone cut through the flesh causing an open wound.

Pregnant women belonging to this class go into confinement with their blood so heavily charged with the by-products of an imperfect metabolism that they are very liable to have septicemia.

People who think they must have "three square meals a day" must have catarrh, rheumatism, tonsillitis, quinsy, pneumonia, typhoid fever, and all sorts of bowel trouble including appendicitis. Why! Because three meals a day consisting of bread, potatoes, eggs, meat, fish, butter, milk, cheese, beans, etc., overwork the metabolic function and as a consequence organic functioning is impaired, cell proliferation falls below the ideal, bodily resistance falls lower and lower, the intestinal secretions lose their immunizing power more and more, until at last the body becomes the victim of every adverse influence. At first fermentation--indigestion--shows occasionally; the intervals between these attacks of acid stomach, or fermentation, grow shorter and shorter until they are of daily occurrence; accompanying this fermentation there is gas distention

of the bowels, and this inflation in time interferes with their motility and weakens them so that sluggishness is succeeded by obstinate constipation.

Every step of this evolution shows an increasing toxic state of the fluids in the bowels. After constipation is established the efforts at securing evacuations are of such a nature as to irritate the cecum. Drugs to force movement cause painful distentions of this portion of the bowels. The drugs stimulate peristalsis of the small intestine; each wave from the small intestine breaks on the walls of the cecum, for the colon is loaded with fecal accumulations so that the onrushing contents of the small intestine can not be received by the colon; hence the force of the whole peristaltic impact is spent on the cecum, which must endanger the integrity of the mucosa as well as the musculature.

This point of the bowels, the cecum is more endangered from diarrhea than any other. The toxic ptomaines are especially liable to create a local infection if nothing more.

This state of the intestines--toxic state--is a constant menace to health; in fact the organism is heavily taxed to maintain its defense.

The overcrowding of metabolism, as explained above, the chronic constipation and toxic bowel secretions, I recognize as the chief

factors--the necessary and leading factors--in the building and maintaining of that constitutional state which I am pleased to denominate \_Constitutional Catarrh. \_When this state is established, it can be said that the individual is ready to develop any phase of disease that circumstance, accident, or caprice of fortune or environment may offer.

The constant presence of gas in the bowels becomes more and more menacing to the cecum as the constipation increases. The filled-up condition of the bowels--the colon and rectum--prevents the easy passage of gas from the bowels, hence it accumulates in the ileo-cecal region and keeps the cecum distended.

The constant dilating of the cecum from gas accumulations and the forced dilations from diarrheas made either from drugs or irritating foods, must not only damage the cecum but the appendix as well; for the appendix opens into this part of the intestine and it is reasonable to believe that it suffers distention from gas and that toxic secretions are driven into it. When its function is not interfered with by an unusual pressure as from constipation, no doubt it can empty itself and does do so.

When it is understood first of all that appendicitis--the inflammation known as appendicitis--is a local manifestation of a general or constitutional derangement, the cause for this local manifestation may be taken up.

In order to understand why the disease localizes we must refer the reader to the peculiar anatomical construction of the cecum and the appendix, and their relation to other parts. The cecum is a large, blind pouch, one of the shortest of the several divisions in the continuity of the intestinal canal, which begins where the small intestine ends, and ends where the large intestine begins. Its blind end or pouch is down; this dependent position makes it peculiarly liable to impaction and the injuries which are disposed to come from distention; for, as the colon ascends from its connection with the cecum, the force of gravity must be reckoned with.

The colon is very liable to be more or less distended with accumulations, and especially is this true of those of sedentary habits, for a call to evacuate the bowels is frequently postponed.

This postponing of duty to nature has evolved, in all these years of civilized life, a weakened functioning so that man is more subject to constipation than any other animal. The bowels are educated to tolerate a great accumulation and the pretty general habit of taking drugs to force action has grown a weakened state which is the natural sequence of overstimulation and as this has been going on generation after generation it has become more or less transmissible.

The cecum, situated as it is, must bear the brunt of the evil

effects of constipation. When the large intestine is full or distended, as it usually is in cases of chronic constipation, so that nothing can pass out of the cecum this organ becomes a jetty head, so to speak, against which the peristaltic waves from the small intestine break. The full force of the peristaltic waves from the small intestine with its onrush of fluid or semifluid contents subjects the cecum to great distention and strain.

If there were any way to prove that so-called appendicitis is more common to-day than in former times, it is reasonable to believe that the irritating effect of the pretty general habit of taking cathartic medicine has had more to do with bringing it about than any other one thing.

Distention, with the straining of the walls from peristaltic onrushes as described above, and the infection that this part of the alimentary canal is subjected to because of the decomposition of food that is going on to a greater or less extent in all victims of constipation, are the causes of inflammation in the cecum. If the inflammation involves the appendix or the cecal location of the appendix, it may be called appendicitis, but the appendix is involved the same as any other contiguous part. Any mind capable of reasoning should have no trouble in rightly assigning the responsibility of this disease, if sufficient attention be given to anatomism.

There is not any very good reason for one capable of analyzing, to jump at the conclusion that the appendix is the cause of the disease because it is frequently found in the field of inflammation. The same reasoning would make Peyer's glands the cause of typhoid fever.

The unwholesome condition of the intestinal tract which is the immediate or exciting cause of appendicitis and other diseases peculiar to this location, is brought on by improper life; not one cause, nor a dozen special causes, but anything and everything that break down the general health create this condition; then add the accidental eating of decomposition, or add decomposition, auto-generated, and we have the necessary data.

The opening of the appendix is so very small that inflammation of the cecum soon closes it and then we have a mucous surface without drainage, which means obstruction--opposition to the requirements of nature--for one of the functions of the mucous membrane is to secrete and this secretion must have an outlet or the part becomes diseased.

According to the theory of bacteriology a micro-organism is to blame for appendicitis. If this were true it would relieve humanity of all responsibility. There is a disposition on the part of man to shirk responsibility and the germ theory is not the first theory of vicarious atonement that he has spun. Those who wish to shirk all kinds of responsibility by adopting the germ theory and by making

micro-organisms the scape-goat may do so, but I would advise all sensible people to keep in mind the following truth: \_Violated hygienic laws predispose to disease; \_then, when resistance is broken down, the immediate and exciting cause may be anything capable of laying on the "last straw."

The micro-organisms are present wherever there is life and are as necessary to life as they are to death.

Ochsner states that in nearly all instances the disease can be traced to the common colon bacillus, which is always present when the intestine is normal. The three pus cocci are sometimes blamed, and so are the bacilli of typhoid fever, tuberculosis and the ray fungus (so-called cause of lumpjaw).

Other causes given are: Edema and congestion closing the lumen of the appendix, thus preventing drainage; constipation; digestive disturbances; traumatism; eating too freely while in an exhausted condition.

"Whatever the predisposing causes may be in any given case, the exciting cause is always some infectious material. The colon bacillus is always present in the lumen of the alimentary canal and, although it is harmless under normal conditions, when these conditions are changed and there is an abrasion, an abnormal condition of the circulation, or a lack of drainage, it becomes at

once actively pathogenic. With a perfectly normal peritoneum a considerable quantity of a pure culture of colon bacilli may be injected into the abdominal cavity without causing any harmful effect, as has been shown by the experiments of Ziegler, but if there is any disturbance in the circulation or nutrition of the peritoneum, the same quantity taken from the same culture will give rise to a dangerous peritonitis."--Ochsner. [This goes back to the constitutional derangement. First of all low resistance, then any exciting cause is sufficient.]

In studying the cause of organic disease, the first thing to consider is the organ itself. A knowledge of its structure and function will indicate what diseases it is liable to have--what the character of the disease must be.

Reason would say that an organ can be deranged in two general ways, namely: structurally and functionally. In a structural way it may be impaired either by coming in violent contact with extraneous objects, or it may be crowded or pressed upon by enlarged or displaced associate organs. In a functional way the derangement may be brought about from overwork or underwork. A digestive organ may be overworked by being given too much food, or food of too stimulating a quality; or the over-stimulation may come from poisons coming into the food from without or developing in the food after its ingestion. The bowels may be injured by coming in violent contact with external objects. When this is the cause there will be the history of accident, etc.

The functions of the bowels are to furnish a dissolving fluid which is secreted by glands situated in their structure and opening into their lumen; besides the secreting glands they are provided with power to excrete and absorb. The organs for the accomplishment of these purposes, like the secretory glands, are situated in the structure and open into the canal. Besides the functions of secretion, excretion and absorption, the bowels act as the great sewer of the body.

The dissolving fluids, or digestive fluids, have the power to overcome fermentation when the general health standard is normal; when the tone of the general health is lowered these digestive juices are lacking in power; hence they are not able to control fermentation if food be ingested to the amount usually taken in health. The power to oppose fermentation by the digestive juices ranges all the way from nil to the resistance usual to a man of full health and vigor.

It being the function of the bowels to digest food and overcome fermentation, it stands to reason that to accomplish this function they must be normal--they must have a proper supply of nerve force and the supply of nutrition must be normal or they can not furnish the proper amount and quality of secretions. To have all these needs supplied they must be reciprocally related to every other organ associated with them in the organic colonization which totals a

human being.

On account of the reciprocal relationship between the bowels and the rest of the colony of organs, the bowels must share alike; that is, in the matter of distribution of forces no organ of the body can be favored; all must go up and all must come down together. They must all share alike; hence the bowels have their share of the general tone and, if they are required to do more than a reciprocal amount of the work, it stands to reason that they can not do good work; and, if they can not do good work, the whole colony must suffer in a general way, while the bowels must also suffer in a special way. The function of drainage or sewerage is very important, and the perversion of it brings on much ill health. The principal perversion to the function of sewerage is that of constipation, the location of which is limited to the lower portion of the large intestine, a section of the canal least endowed with digestive and absorptive power.

The result of overwork is depression--exhaustion--prostration; and what does that mean to an organ? Is it possible for an overworked organ--a depressed organ--an exhausted organ--a prostrated organ--to function normally? Is it reasonable to believe that an organ that is inflamed can function properly? Such questions are absurd, I acknowledge. Questions that carry foregone conclusions on the face of them write the questioner down an ass, which I also acknowledge. But I desire to rebut the inference these questions reflect on me by making a few requests which show that there is a lot of professional

reasoning based on that sort of logic which justifies my childish, senseless questions.

Show me a physician, or if you can not show me one, give me the name of a physician who does not feed children in cholera infantum. I want to know a few physicians who do not feed in typhoid fever. I should like to make the acquaintance of a few physicians who do not feed in appendicitis until the disease is made desperate, and who do not begin to feed long before it is safe to feed.

In all diseases where there is fever, in all diseases where there is pain, \_nutrition is suspended--\_metabolism is stationary. I wish some one would be kind enough to inform me of an M. D. who does not feed patients suffering with pain and fever.

If the inferences these requests carry are true, has the personnel of the profession any right to treat my questions with contempt and declare that they are childish!

No! Diseased organs can not function properly and it is absurd, yes worse than that, it is criminal to feed under such circumstances. The result of feeding is the prolongation of disease by building it afresh with every spoonful of food.

I say that every relapse and every complication that have ever

occurred in any disease being treated by any physician from the top to the bottom of the profession' even if the treatment was the very best that could be furnished by the highest skill in any of the drug-systems, if said treatment consisted of drugging and feeding, were brought on by the treatment.

All diseases of the alimentary canal, not of a traumatic origin or from the accidental or intentional swallowing of corroding chemicals or from the continuous use of drugs on the advice of physicians, come from infection or intoxication. Why not? This is the most reasonable cause, for the fecal matter in health is toxic and it only requires one step further to sufficiently intensify the putrefactive change to create irritation of the mucous membrane. Of course there is a degree of immunization taking place all the time. Many people have themselves inured to the constant saturation of fecal intoxication. It is true they are building a large toleration for that particular poison, but their general vital tone is being lowered continually and somewhere and in some way there is a deposition taking place. In women there may be an old cicatrix in the neck of the womb or a lump in the breast; the circulation has been impaired for several years and now because of the overstimulation that has been going on so long, there is a greatly enfeebled circulation and deposits are taking place. The tumor in the breast becomes cancerous; the scar in the womb takes on malignancy; the arteries harden; the circulation in the spinal cord becomes so impaired that induration is induced followed by ataxia; and other troubles of a like character could be mentioned. These are

the most favorable results for, while these cases are winding their weary, sluggish course to the land of rest, there have been many taking the rapid transit.

I wish to emphasize the fact that one of the constant symptoms peculiar to this class of inebriates is constipation. As a class these people carry very large quantities of fecal matter in their lower bowels. This constantly loaded condition of the lower bowels is relieved occasionally by a sharp, irritative diarrhea, accompanied by nausea and vomiting or not. The diarrhea is often preceded by a few hours of acute pain that causes some talk of appendicitis and operation but, much to the discomfiture of the doctor, the bowels start up and relieve all suffering.

A few of these cases develop a chronic colitis. The bowel discharges are more or less coated with catarrhal secretion. Not all are constipated; obstinate diarrhea is the character of some; there are here and there a few cases that throw off a membrane two or three times a year, often in appearance like a cast of the lumen.

Enteritis, entero-colitis and dysentery are different forms of bowel troubles that cause much uneasiness, for it is such a common matter to call everything appendicitis, and if the patient is credulous and gullible he may be operated upon even if his disease is a proctitis or a case of gas in the bowels.

It is no uncommon thing for a case of obstinate constipation, accompanied by colic, to be operated upon for removal of the appendix if the pain is obstinate and hangs on long enough for the patient to be scared into an operation. The pressure from constipation and the constant strain on the cecum render this particular section of the bowels liable to take on local inflammations.

The recognized literature of the day attributes all infectious disease to germs or micro-organisms. That all diseases originating in the alimentary canal are due to infection there can be no doubt, and all agree, but I do not agree with the prevailing opinion that germs or micro-organisms are the primary cause of infection, for that theory is not sufficient; it can not possibly cover the ground and account for everything that takes a part in the great array of causations that must be considered. To my mind it would be just as reasonable to say that germs cause health, and I defy any bacteriologist to prove that micro-organisms cause disease any more than they cause health; and if he can't prove that germs are more pathologic than they are physiologic, but does succeed in proving that they are equally important to health and to disease, we can agree to that equal importance and should be able to go on agreeing and declare that if germs are the cause of disease they must also cause health and it is our duty to spend at least a part of our professional time in cultivating health germs. In fact it would be much better to spend all our time in cultivating health germs and insisting on people being inoculated with the serum from these germs

so that there will develop such a state of health that the disease germs will have no show.

How can a sane man forgive himself for advocating inoculation by disease germs to cause immunization when by the use of health germs the health could be built so strong that the pathogenic germs would have no show. If this theory won't work both ways it is a false theory, and professional men, who should be logical if any set of men are logical, should be ashamed to advocate any theory that is based upon a half-truth.

As I stated the structure and function of an organ point to its possible maladies. The cecum is the gate-way between the large and small intestines. Its function of passing the contents of the small intestine into the large is obstructed much of the time. It is constantly subjected to bruising, pressure, stretching, and obstruction, and is, therefore, more liable to be the seat of local inflammations than any other part of the bowels. Diseases of this part of the bowels are liable to come at any time of the year; but in hot weather the tendency to fermentation is much greater than at other times of the year, and bodily resistance is reduced because of the enervating influence of the heat, of too long working hours, and of too short nights for sleep, and of the ever-present, omnipotent and omnivorous appetite which is taking into the stomach and bowels food beyond the digestive capacity both in quantity and quality; all these join in intensifying the habitual toxicity of the bowel contents to such a state of virulence that those parts of the bowels

already weakened, because of the mechanical injuries before referred to, take on a local inflammation. Diarrhea may be the consequence and the bowels may have a thorough cleaning out and the whole trouble end in a few days. Or the constipation may be of a nature that evacuations, such as the patient has been having, have been passing through the center, leaving a coating on the lumen, but hollowed out in the center. When the inflammation starts causing increased bowel contractions--peristalsis--there is a breaking down of the walls of this fecal ring resulting in complete obstruction. The ineffectual bowel contractions then serve to irritate and inflame the affected part still more. The local inflammation is at first superficial but the increasing toxicity of the fluids that are held on these parts causes the inflammation to take on ulceration.

The inflammation or ulceration may remain superficial, and be located in the lower portion of the small intestine, then the disease is enteritis. If the bowels are cleared out and the patient's blood freed from intoxication, the attack ends; if not the disease will be called enteritis or catarrh. If the infection is a little greater and extends a little deeper causes inflammation of Peyer's glands then the type of the disease will be typhoid fever.

Children troubled with constipation will sometimes be taken with fever and pain in the right iliac fossa and, on examination, a fullness will be found; the sensitiveness will not be so great but that an examination can be made and a sausage shaped tumor may be outlined; of course, the disease will be named appendicitis and this

is enough to scare a whole neighborhood, and the child will be carted off to a hospital and operated upon for appendicitis.

If the child is left alone, given no food, and ice put on the sensitive parts if the temperature is 103 degree F., or hot applications if the temperature is less, the tenderness will probably go away in two or three days; if it does not, an abscess will form and empty into the cecum. If the child is fed, and the tumor manipulated--subjected to unnecessary examinations--the abscess may be made to burrow down toward the groin, which should be avoided for it is a very undesirable complication. The first abscess is typhlitic, the second is perityphlitic. The first may form without the aid of bruising in the manipulation of repeated examinations, but the second must be forced by bad management. The latter abscess, I have reason to believe, is the former abscess driven, by repeated manipulations, to burrow downwards instead of opening into the cocum.

Fecal abscess, arising from ulceration of the colon, may be mistaken for appendicitis. There is a localized swelling, immovable in breathing or when pressed upon, and having a tympanitic sound on percussion over it with dull sound on pressure and heavy stroke.

The symptoms of appendicitis are: Pain in the front, lower, right side of the abdomen. It is paroxysmal and caused in the main by peristalsis--the regular action characteristic of the sewer function

of the bowels, which is for the purpose of forcing the contents of the intestines onward to the outlet, and which ordinarily is carried on without pain; but, in bowel obstructions of any kind, the onward flow of the bowel contents is cut off resulting in great pain where there is much irritability, for irritation of any kind always increases this expulsive movement. Food, taken in health, stimulates this contraction and if taken when there is inflammation--enteritis, colitis or inflammation of any part--the contraction is increased and necessarily painful. Think of the pain that the subject of diarrhea has, then imagine what that pain must be if there should be obstruction so that the fecal matter could not pass. That is as near as I can describe what the pain of appendicitis is. Anything that will stimulate these contractions will throw the patient into great distress. Food or drugs will cause pain, and water, the first few days of the illness, will do the same.

In inflammation of the cecum, where the inflammatory process remains local and there is no obstruction more than constipation will make, the patient will be troubled with occasional attacks of pain which will pass as colic; or there may be a diarrhea, lasting for a day, every few weeks or months with constipation between the attacks. These cases may lead in time to ulceration, then to fecal abscesses and they are often diagnosed chronic appendicitis.

When the inflammation is confined to that portion of the cecum that gives attachment to the appendix there may be no pain, or the pain may not be intense, and because of this lack of intensity, the

patient tolerates abuse in the line of drugging and feeding until an abscess forms, the walls of which surround the appendix which is inflamed and often gangrenous. About this time, on account of the gradual increase in swelling, the pressure brings obstruction, partial or complete, causing the symptoms to become suddenly very dangerous; then if vigorous examinations are made to determine the exact status of the disease, don't be surprised if rupture of the pus sac takes place! This then demands an immediate operation which if performed will show a gangrenous appendix that had ruptured! This is quite common and is looked upon as proof positive that an operation was justified; in fact, the proper and only thing to be done, and it should have been done earlier!

This is the opinion of the majority of the profession. It really appears that surgeons are innocent of the part they play in rupturing unsuspected abscesses and otherwise complicating this disease by much rough handling.

The paroxysmal pain which is characteristic of the early stages of appendicitis may be accompanied by fever, sometimes low and sometimes high, nausea, vomiting and diarrhea. The vomiting may be severe and there may only be nausea. If there is much vomiting there will usually not be much diarrhea for the excessive vomiting is an indication that there is obstruction. In other cases there is both nausea and diarrhea; then the obstruction is either not established, for the trouble is as yet a local inflammation of the mucous membrane, or the diarrhea is from the bowels below the cut-off.

It is safe to prognose obstruction when the vomiting is severe; but if the nausea continues longer than three days, it must be due to eating or to drugs, to taking too much water while there is nausea, or there is more obstruction than can be accounted for by such diseases as suppurative inflammation of the cecum or appendix.

It will be well to remember that diseases of the cecum or appendix or both never cause complete obstruction, except in exceedingly rare cases where adhesive bands are formed, completing the cut-off. In this connection it will be well to also remember that in absolute obstruction the symptoms of nausea and vomiting, or retching, will continue, while those of appendicitis will stop in three days. In addition to the continued nausea of complete obstruction, the pulse grows weaker and more frequent and the patient shows great anxiety of expression, there is a sickness that can not be accounted for with a diagnosis of appendicitis or typhlitis, and the patient has the appearance of being desperately sick. The great pain at the beginning subsides, the temperature falls, the pulse grows rapid and weak, the skin becomes leaky, the mind becomes dull, drowsy and comatose, then a little wandering and death relieves the suffering in a short time.

These symptoms are of collapse and they may come on in the course of a typhoid fever, or other diseases of the alimentary canal; they always mean a fatal toxemia either from obstruction or perforation,

and occasionally the only forerunning symptom is sudden abdominal pain. Circumstances must guide in making a diagnosis. If, during a run of typhoid fever, there should be sudden abdominal pain followed with symptoms of collapse and nothing to account for it, it means perforation; an immediate operation may save the patient; nothing else will.

A sudden pain in the abdomen of a woman during menstrual life, with positively no unusual menstrual symptoms and no trouble in the right ileo-cecal region, indicates perforation of the stomach or of the gall-bladder. If there have been a menstrual period or two gone over with a slight showing, and some uneasiness, perhaps nausea, perhaps a flow with pain somewhat simulating abortion, a sharp, severe abdominal pain followed with quickening of the pulse and an exceedingly anxious facial expression, ectopic pregnancy with rupture of the tube may be suspected. One must also keep in mind renal calculus in determining bowel diseases.

Authors pretty generally unite in declaring that appendicitis is a dangerous disease. In his late book, "The Abdominal and Pelvic Brain," Dr. Byron Robinson of Chicago says, "Appendicitis is the most dangerous and treacherous of abdominal diseases--dangerous because it kills and treacherous because its capricious course can not be prognosed. . . . For years I have made it a rule to recommend appendectomy to patients having experienced two attacks. Fifty per cent of subjects who have had one attack experience no recurrence."

In Keating's Cyclopaedia of the Diseases of Children, Dr. John B.

Deaver of Philadelphia makes the following statements:

"Appendicitis, whether acute or chronic, is essentially a surgical affection, and should be placed at once under the care of a skillful surgeon. The truth of this statement is becoming recognized in direct proportion to the general knowledge of the course and uncertainties of the disease, and at the present time only those who have but a limited idea of the course of the affection and have seen but a few cases, attempt to treat appendicitis without the advice of a surgeon."

"Operation is the only procedure by which we can be certain of curing our patient. It is true that some cases do recover from an attack of appendicitis without an operation, but the percentage of those that recover from the disease is almost nil."

"The main reason, however, why the appendix should be removed as soon as possible is that no one can state positively what course the disease is taking."

"Although a strong advocate of the removal of the appendix in almost every case of inflammation of that organ, yet there are a few conditions under which I prefer to delay operation. When we find a patient with persistent vomiting, a leaky skin, a rapid, running

pulse, a diffuse peritonitis and signs of collapse, I believe that operative interference is contraindicated. Under these conditions an operation would invariably be followed by loss of life. Ice to the abdomen, calomel pushed to free purgation, a small fly-blister below the ensiform cartilage, nutritious enemata, with stimulants in the form of whiskey or champagne, and hypodermics of strychnine, give a more hopeful prospect than would operation. When the peritonitis has subsided and the constitutional condition warrants, operation may be performed with a much better prognosis."

The symptoms described by Dr. Deaver are those of collapse, following perforation, diffuse peritonitis to be followed soon by death, or of narcotism--morphine paralysis, soon to be described \_in extenso \_when we come to treatment.

If the doctor ever had a patient presenting those symptoms and the patient lived after being subjected to the treatment he recommends, it is safe to say that he was dealing with an artificial collapse--a drug collapse--and he did not have perforation and diffuse peritonitis.

This statement of the eminent Philadelphia surgeon adds another very weighty proof to my oft-repeated assertion that it matters not how eminent the medical man may be, he cannot tell the difference between drug and pathological symptoms. Of course this is a humiliating statement, and it is not expected that those very

eminent medical men whom I charge with inability to differentiate between drug collapse and the collapse due to disease, will acknowledge that I am right, for, if their mental horizons extended far enough for them to admit it, it would not be necessary for me to say it.

In no other way can the atrocious mistakes that doctors make in prognosis be accounted for. \_How many, many times \_doctors have declared that a given case must end in death, and they are so cocksure that they are right that they leave the patient to die; some sort of a fake, mountebank or fanatic comes in, the drug disease wears off and in a few days the patient is well. That is exactly the sort of a case Dr. Deaver describes. The faker gets busy with drugs that antidote the morphine poisoning, and occasionally a patient gets well in spite of all.

In regard to surgery for this disease I shall quote from Ochsner:

"Personally, I can only second the statement made by one of the most experienced men in this country in the surgical treatment of appendicitis, that there are thousands of surgeons who are otherwise competent, i. e., competent to perform the ordinary surgical and gynecological operations, whom he would not think of permitting to open his abdomen in case he personally suffered from an attack of appendicitis. This condition is true not because it is an especially difficult or dangerous operation, but because it requires an

appreciation of the conditions upon which success and failure depend, and this appreciation can be obtained only by observing good methods.

"In many of the ordinary surgical operations it is not necessary to follow out the details with any great degree of accuracy, because failure to do this will at most result in confining the patient to bed a little longer than usual or necessary, while in the appendicitis operation it is likely to result in the death of the patient.

"This position, when taken in the discussion of appendicitis in medical societies, has frequently given rise to severe criticism because upon its face it looks as though appendicitis operations should be performed only by the few who happen to have acquired especial skill in this class of surgery, possibly at the expense of the lives of a number of patients.

"This, however, is not the case. The operation is simple enough if one will but take the pains to learn it, and every town of five thousand inhabitants should have at least one man perfectly competent to do such work. But if there is no such man available then I would say most emphatically that the patient's chances of recovery are many times greater with proper non-surgical treatment than with an operation. Of course, patients have occasionally recovered, by accident, in the hands of most incompetent surgeons,

but the death rate after appendicitis operations in the hands of incompetent surgeons is absolutely frightful.

"My experience and personal observation have taught me that physicians and surgeons, as a rule, are absolutely conscientious, and that when they perform this operation, notwithstanding the fact that they themselves know they are incompetent (and they alone must necessarily be their own judges as to their competency), they do it because they have been taught that this is the only right treatment, and that the patient is entitled to an effort on the part of the physician or surgeon to save the life which is in danger. I believe that this is extremely bad teaching, and that many hundreds of lives have been sacrificed unnecessarily on account of this. I say this because I am confident that with proper non-operative treatment almost all of the cases which are diagnosed reasonably early may be carried through any acute attack, no matter what its character may be.

"I would then say, primarily, that no case of appendicitis should be operated upon unless a competent surgeon is available. This, of course, does not apply to cases in which a circumscribed abscess has formed which anyone can open with safety provided he has sufficiently good judgment not to do anything further."

Here I must differ. If the case has not been complicated by overmuch handling, digging, punching, thumping and otherwise manipulating in

the name of bimanual diagnosis, no one has any right to put a knife into the pus sac for it matters not how well it is done the drainage is bad and is in opposition to the natural outlet through the bowels. Of course if the unfortunate patient has fallen into the hands of some one who believes it the prerogative of a physician to manipulate in season and out of season, and who has converted a typhlitic abscess into a perityphlitic one, or forced the pus to burrow towards the groin, then a free opening with a let-alone after treatment, except thorough drainage, may be followed in time by restoration to health; however, if the patient fully recovers it will be more from luck than from the usual management.

#### CHAPTER IV

\_Pathology: \_Formerly very little was written about the pathology of the appendix, the writers describing more the lesions of the cecum and surrounding structures. After the birth of the surgical craze, the exciting cause was located, or supposed to be located in the appendix, and the abnormal condition of the cecum was and is considered to be secondary or due to the lesions found in the appendix. The profession must evolve beyond its present tendency to look for cause in the organ. First understand the general then the special will be apparent.

The pathology of the appendix has now grown exceedingly voluminous, and if it were as valuable in quality as it is great in quantity the

necessity for more investigation would be removed.

Appendicitis means inflammation of the appendix. This inflammation may affect the whole structure or merely a part. Catarrhal appendicitis affects only the mucous membrane.

The appendix may be gangrened, wholly or in part. At times only the mucous membrane is gangrenous. The mucous membrane may be ulcerated and the pus penned in because of a closure of the mouth from swelling.

Concretions are found in the organ at times. These are evidently formed inside the appendix, for they are often too large to enter in the form in which they are found.

When there is perforation of the appendix the result is peritonitis according to some authors, and, according to others just as great, this is disputed I belong to the latter class in belief.

The pathology of appendicitis is necessarily touched upon more or less in going over the etiology, symptoms, and treatment of the disease, and variation is the rule, for how could it be otherwise when subject and environment must always vary?

As soon as an inflammation starts, the first thing that nature does

is in the line of enforcing the \_first law of cure, \_namely: \_rest.

\_To bring this about the musculature is set, rigidly contracted, thus fixing the parts. The contraction, of course, will be in keeping with the irritation of the parts; great pain means great rigidity, and \_vice versa. \_This being true, the harm that must come from keeping the stomach and bowels irritated by giving drugs and food should be plain to any mind capable of reasoning and willing to think.

The more food given the more gas, pain and rigidity, and the more rigidity the more complete the obstruction, and the more complete the obstruction the more retention of gas. I need not enumerate the evils due to gas distention, for they should be apparent.

If the obstruction caused by the swelling incidental to the hyperemia and inflammation is not already complete, the fixing or muscular rigidity completes it. After the obstruction is complete, if there is diarrhea, which is frequently one of the first symptoms, it comes from below the cut-off.

The inflammation of the cecum and appendix is similar to inflammations elsewhere; the capillary blood vessels become engorged, the circulation becomes sluggish, and this causes swelling; the tissues then grow dark from the congestion. This condition is similar to tumefaction in general. which is favorable to abscess formation.

When the local irritation and inflammation start with enough impetus to evolve an abscess the parts become fixed, as stated above, and the environing structures assume an attitude of alligated defense. There is a drawing together of neighboring tissue; the momentum, which should be recognized as the brood mother and care-taker of everything vital in the abdominal cavity, joins with contiguous structures and all become welded together by a friendly adhesive inflammation. When this defense is complete the abscess is walled in so completely and with such thoroughness that all possibility of intraperitoneal rupture rests with the blundering, heavy-handed, trouble-hunting profession; and if nature \_ever fails to complete the building of this wall of defense it will be because she has been interfered with by officious meddling in the name of scientific healing.\_

There is no question but that many of these patients are seriously handicapped and others positively killed by unskillful, overzealous, superfluous examinations. A heavy-handed attendant should never be allowed to manipulate swellings in the right iliac fossa, nor in any other suspected region, for fear of destroying nature's defenses, and possibly rupturing an abscess, the contents of which will be emptied into the peritoneal cavity, causing peritonitis and death.

Seeds are seldom found in the appendix and the fear of swallowing them because they may lodge in it is not well founded. There is no

question but that this organ has the power, when normal, of taking care of itself. It has a peristaltic action and can expel anything that is capable of gaining entrance.

## CHAPTER V

\_Symptoms: \_An acute attack is ushered in with severe pain. At first this is felt over the entire abdomen, but it is more marked near the navel than elsewhere. After about twenty-four hours it becomes localized in the region of the cecum.

The pain is colicky or spasmodic in character, showing that it is due to peristalsis; food of any kind increases the peristalsis; hence the pain becomes more severe after feeding. Do not make the mistake of thinking that liquid food, such as milk, can be given, for a teaspoonful is sometimes sufficient to make the patient miserable for a whole day.

The abdomen is tender, especially over the cecum, and should therefore be manipulated as little as possible, for it causes the patient unnecessary pain, and if an abscess has formed there is danger of breaking the walls which nature has thrown up.

Nature's tendency appears to be to fix the inflamed portion so as to secure rest and this is accomplished by the muscles of the abdominal

wall becoming rigid, especially over the cecum. These muscles are contracted to such an extent that the right thigh is often drawn up in order to relieve the tension.

When the cecum is inflamed it is common for the colon to be loaded; this colon obstruction prevents the onward passage of the contents of the small intestine, and when they cannot free themselves and the peristaltic movements meet with sufficient obstruction to force a halt, the pain and suffering become intense. When the peristaltic movement has met with a few disappointments it reverses and empties the contents of the small intestine into the stomach. The result is nausea and vomiting which at times are both severe and persistent. But when it lasts beyond three days it is an indication of a complication or mistake in diagnosis, providing the patient has been properly treated.

The abdomen becomes distended with gas if drugs and food are given; as regards the pulse, there is nothing characteristic about the pulse rate and the temperature in this disease. Sometimes the temperature does not go over 100 degree F., but at times it reaches 105 F. The pulse is sometimes so rapid that it is hard to count--due usually to drug influence--and again it may not go above 100 or 110 beats per minute during the entire attack.

As these patients are nearly always constipated, and suffering from indigestion, they generally have a coated tongue.

The above symptoms are those relied upon in making a diagnosis, and especially the first four--pain, tenderness, rigidity, and nausea with vomiting--which are generally referred to as the four cardinal symptoms. Some authors give a "characteristic triad," namely: pain with tenderness of the abdominal wall, fever, and vomiting.

A patient may have pain with tenderness, fever and vomiting, and be very far from having appendicitis. There is a world of difference in the importance of pain, the range being from no danger at all to absolutely no hope. Tympanites may mean a very simple state or an absolutely hopeless state. To be able to interpret the exact worth of symptoms means observation, study, reflection--labor and experience running over years--and a love of work that is not the good fortune of a very large percentage of mankind.

Before we get through with this subject the reader will be shown how it is possible for highly educated men to be wholly unable to interpret the worth of symptoms.

## CHAPTER VI

Surgical Treatment: Appendicitis is quite generally thought of as an exclusively surgical disease. Osler recommends that such cases be operated upon, and most of the prominent physicians agree with him.

The surgeons are a unit for the operative treatment.

Many surgeons are in accord with Prof. L. ID. Russell of Cincinnati, O., namely, that it is not a question of "when to operate, but how much to operate," meaning that all cases should be operated upon as soon as possible after the diagnosis has been made, but the extent of the operation is to be decided by the conditions found after the incision has been made. If the appendix is surrounded with pus and hard to get at, the indication is merely for drainage at this operation, but if the appendix is accessible, it should be removed.

Ochsner recommends the withdrawal of all food by mouth, washing out the stomach, leeches to be applied on the abdomen over the inflammation to relieve pain, rectal feeding, and operation in every case after the acute attack is over. If a "competent surgeon" is available he thinks the proper thing to do is to operate during the acute attack, except in a class of very severe cases, which, he says, have a better chance to recover without the operation. I will quote a few paragraphs from his book, setting forth his views:

"Taking into consideration the pathological conditions described, together with the clinical experience, the likelihood of a recurrence after an attack if no operation is performed, and the likelihood of a complete and permanent recovery if the diseased organ is removed under favorable circumstances, we can come to but one conclusion, namely, that if the desired condition can be

obtained the diseased appendix should be removed."

"Except in very rare cases in which the entire mucous membrane of the appendix is destroyed during the first attack, it is doubtful whether the patient ever completely recovers unless the appendix be removed. It is more likely, from an anatomical and pathological standpoint, and certainly more in accordance with my clinical observations, that the patient usually suffers from disturbance of his digestive apparatus after recovering from an acute attack of appendicitis."

"Mynter does not deny the possibility of complete recovery from appendicitis without removing the organ, but considers it an exception or almost an impossibility, and I find that this view is shared by a majority of clinical observers of wide experience."

"It is rare for an acute attack of appendicitis to subside unoperated without leaving one or more of the pathological conditions briefly described above, and it is plain that with these present the patient must be much more liable to a future attack than he was primarily. In fact, many of the best observers with the largest experience think that recurrence in these cases is the rule and complete recovery the rare exception."

[The pathological conditions referred to are ulcerated or gangrened appendix, perforations, fecal concretions in the appendix, etc.]

"It does not matter whether the patient suffers from catarrhal appendicitis, with or without a foreign body in the appendix, or whether the appendix be gangrenous or perforated, he will almost invariably recover if from the beginning of the disease absolutely no food is given by mouth."

"Some years ago, before I had learned to appreciate the treatment which I now describe, I frequently operated upon patients in just this condition, [condition of patient described as having temperature of 104 degree F., pulse 140, abdomen very much distended, features pinched and patient delirious], as a last resort, thinking that this gave them the only possible chance of recovery. Since then I have learned that this case belonged to a class which practically never recovered after an operation, if it is done while the condition is that in which I found this patient, and of which a very large majority recover if the treatment is followed which I have described."

[The treatment referred to is to let the patient alone except giving food by rectum.]

"I have had an opportunity to observe a very large number of these patients under this form of treatment, and have operated upon many of them at various intervals after the acute attack through which they were treated in this manner, and have been able to demonstrate

that the patient can recover, and practically always does recover, if this method of treatment is employed. Of course, one occasionally encounters a patient suffering from appendicitis who is in a dying condition, and then neither this nor any other method is of any value."

"I find that many authors advise rectal feeding under certain conditions, but I am certain that the exclusive rectal alimentation is of greater importance in the treatment of appendicitis than any other single method, but I am equally certain that it must be carried out thoroughly, because even a small amount of food or the administration of a cathartic may suffice to bring about a fatal issue."

[Why feed! There is no danger of starving!]

"I am also certain that many patients are enormously benefited by the use of gastric ravage for the purpose of removing a quantity of decomposing material, the absorption of which would certainly do a great amount of harm. I am also certain that gastric lavage does permanent good only if no further food is placed into the stomach, which would result in further decomposition."

[At the beginning of treatment--the first visit--wash the stomach and then feed no more.

Although some physicians boast that this is an age of preventive medicine, the following paragraph is about all that is devoted to this phase of the subject. In one or two places people are cautioned not to eat too much and chew thoroughly, but what does this amount to? How many people know how much to eat or how thoroughly to chew? Very few physicians have a grasp of this subject.]

"It is true that recurrences can usually be prevented by careful attention to diet, by securing daily free evacuations of the bowels, by avoiding over-work and above all things by abstaining from eating too freely, especially of indigestible food when tired.

Notwithstanding these facts most patients will never be entirely well after recovering from an attack of appendicitis, and if this is the case I believe that the best treatment consists in the removal of the diseased appendix."

"In conclusion I will say that the most important lesson my experience has taught me is the fact that more harm is done to the patient suffering from acute appendicitis by the administration of any kind of nourishment or cathartics by mouth than in any other way, and that more lives can be saved by prohibiting this and by removing any food which may be in the stomach at the beginning of the attack by gastric ravage than by all the other methods of medical and surgical treatment combined."

[This is my belief and treatment and has been since I began to practice my profession.]

The above extracts were taken from Dr. Ochsner's Monograph on Appendicitis.

When a patient has completely recovered from appendicitis he should learn to live correctly. Learn to eat properly and to know how to take care of the body in every way.

There is much to learn on the subject of what to eat, what not to eat, what foods to combine and what combinations to shun, when to eat, when not to eat, etc.

Appendicitis is caused by wrong eating; those who go through the disease and recover, will have another attack unless they change their style of eating.

## CHAPTER VII

\_Treatment: \_I believe that contrasting treatments is the very best way to teach; however, this plan is not so good when carried on in writing as it would be clinically.

In order to contrast my treatment with the best just now available I shall quote from one of the latest authorities, "Modern Clinical Medicine--Diseases of the Digestive System." Edited by Frank Billings, M. D., of Chicago. An authorized translation from "Die Deutsche Klinik" under the general editorial supervision of Julius L. Salinger, M. D. Published by D. Appleton and Company, 1906.

It is reasonable to believe that when one of our leading American physicians thinks enough of a foreign author to translate his productions the material must be pretty well up to the top of medical literature, and that is my only reason for selecting this particular contribution on which to make my comments for the purpose of contrast.

The case I select is strictly in line and parallels a case of my own. It is a case of Diffuse and Circumscribed Peritonitis, treated and reported by O. Vierordt, M. D., of Heidelberg.

"Acute, Diffuse Peritonitis: As an introduction to the discussion of our present views of acute peritonitis I will relate the following clinical history:

"Case 1.--A previously healthy merchant, aged 31, was taken ill after a few days of vague, dull pain in the right side of the abdomen which he had disregarded, and upon the 20th of October, about midday, he was seized with very severe pain in the right lower

abdominal region which compelled him to seek his bed; soon afterward he had chilly sensations which increased to marked chills; there was also nausea, eructation and vomiting, first of food and then of bilious mucus; a little later tenesmus appeared, the patient first voiding small, compact feces, followed by scant, thin dejecta. Within a few hours the abdomen had become tympanitic, the pains continued with exacerbations upon motion, after eructations, and on talking; the entire abdomen was very sensitive. Strangury with the frequent discharge of scant urine was observed.

"Toward evening the physician found the patient extremely ill, immovable in the active dorsal decubitus, with an anxious facial expression, reddened cheeks, cautious, superficial respiration with a low, hushed voice; he complained of continuous, also occasionally of marked tearing and contracting pains in the entire abdomen, most severe upon the right side low down; the temperature was 103.2 degree F., the pulse was 112, full, somewhat tense, regular and even.

"The lips were dry, the tongue markedly coated; *foetor ex ore* was present; painful eructations were frequent, also singultus, complete anorexia and extreme thirst. The respirations were superficial, quite rapid, and purely thoracic; the diaphragm was slightly raised; the pulmonary-liver border was, in the right mammillary line, at the lower border of the fifth rib; upon anterior examination the thoracic organs appeared normal; the examination of the back was not then undertaken.

"The entire abdomen was uniformly tympanitic, everywhere very sensitive to the slightest pressure, but more so upon the right side than upon the left. There was also pain upon pressure in the lumbar region.

"Signs of abdominal respiration were absent. Careful palpation showed a uniform, drum-like resistance, otherwise nothing abnormal. The percussion note over the abdomen upon light tapping (and only this could be borne) revealed no decided difference, and nowhere any dullness; upon prolonged continued auscultation, high-pitched intestinal murmurs were here and there heard.

"Retraction of the thighs produced diffuse abdominal pain, more marked upon the right side than upon the left; careful examination of the hernial rings gave a negative result.

"Upon careful digital exploration per rectum in the dorsal decubitus, nothing abnormal was noted except pain in the floor of the pelvis; the rectum was empty.

"Since morning neither feces nor flatue had been passed; the patient complained of strangury which, however, he rarely attempted to relieve because he feared to aggravate the pain which shot downward and radiated into the urethra. The urine was of high color, clear,

and contained a trace of albumin and large amounts of Indican.

"The physician in charge of the case diagnosed acute, diffuse peritonitis, the origin of which was not quite clear; very likely it was in the appendix. He ordered absolute rest, that the urine and feces be voided in the recumbent posture; that, for the present, only small quantities of ice be taken by the mouth;"

[First mistake. Never use ice nor ice water to relieve thirst for it creates an unquenchable thirst and causes nervousness and general discomfort, not only in this disease but in all others.]

"that two bags filled with ice be applied to the abdomen, and be suspended from a hook if they could not be borne directly upon the abdomen. Furthermore, at first every two hours, later somewhat less frequently, 0.03 of opium purum in powder form was to be taken in a little water."

[Pure opium 0.03 or 6/13 grain every two hours at first, less frequently later, was the second mistake, for opium brings on general depression. It not only dulls sensation, but it inhibits combustion thereby lessening nerve supply, weakens the heart action, and masks the physiological as well as the pathological state. The disadvantages of such an influence should be apparent to even a medical novice. The influence of opium in inhibiting nerve supply reduces the normal irritability--muscular tone; this works a great

disadvantage in bringing about a tympanites entirely out of keeping with the intensity of the disease and this is not the only artificial symptom induced by this drug as we shall see later.

An opium tympanites causes many physicians to mistake it (a drug-action, or a symptom induced by drug-action) for the tympanites caused by peritonitis. The great disadvantage of thus masking and perverting symptoms, which should be natural so that the physician can know at any hour of the day just exactly where his patient is, must certainly present itself even to a lay mind.

It surely is important to know that an opium-induced, phantom peritonitis causes pressure upon the diaphragm, which in turn crowds the lungs and heart, inducing precordial oppression--smothering sensations and simulating important symptoms which should be understood at once so that a proper remedy may be applied.]

\_"In the following forty-eight hours, with irregular variations and a slight tendency to rise, the temperature ranged between 102.2 degree F., and 105.3 degree F. The pulse became more frequent but remained strong and uniform; the respirations were unaltered in character but increased in frequency to 48."

[Unnatural and brought about by opium.]

"The patient, unless under the influence of opium, was sleepless, his mind was clear, and he gave the impression of being extremely ill, although not in collapse."

[This is peculiar to opium; it was too early for these symptoms to develop in this case; hence drugs brought them on.]

"The pains, eructations and vomiting were decidedly relieved by the opium;"

[A relief that was bought at a tremendous cost, for a time came in a very few days when it was hard to tell whether the vomiting was from the disease or from the drug. The increase in respirations was due to opium.]

"but ice-bags for a time were not well borne and cold Priessnitz compresses were substituted. Vomiting was rare, was invariably bilious and coarse-grained; neither feces nor flatus were discharged; the urine was as before the diazo-reaction negative.

"Distention of the abdomen and the area of diffuse resistance increased; sensitiveness to touch appeared to be dulled by the opium; in the ileo-cecal region, however, it was constantly severe and lancinating. The liver dullness below decreased;"

[Why not? Extending tympanites caused it--insignificant at most.]

"the pulmonary-liver border extended to the upper border of the fifth rib; on the right side of the abdomen between the navel and the anterior, superior spine of the ileum a circumscribed slight dullness was observed."

[This could have been taken for granted without unnecessary palpation.]

"There was great nausea and burning thirst."

[Already the opium was getting in its work. Great nausea and burning thirst were not due to the disease, and the crowding upward of the liver border was caused by the gas distention.]

\_"Diagnosis: Acute diffuse appendicular peritonitis, probably also perforation; circumscribed perityphlitic abscess."

[The diffuse peritonitis was apparent to the eye but not to the reason as the course of the disease proves before many days.]

"Operation was considered but not performed. Removal to the hospital for the purpose of an operation was absolutely declined by the

patient."

"I saw him upon the following day, the fourth of the disease."

[Undoubtedly this case had advanced to the seventh day when the description began.]

"In general the severity of the clinical picture had increased, especially some of the individual symptoms: Severe, markedly febrile general condition; pulse 120 to 136, moderately full, regular."

[Drugs and food caused the increase in the severity of the symptoms, for if the increase in pulse and temperature had been due to toxic infection, there would have been no amelioration of these symptoms, which we find takes place later.]

"There was insomnia with occasional opium slumber; otherwise the mind was clear but anxious. The tongue was thickly coated, the lips were dry, there was tormenting thirst."

[Ice and opium were getting in their work, increasing the nervousness and of course the fever.]

"The cheeks were red. The patient maintained the dorsal decubitus

with feebly flexed legs and hushed voice; the hands moved but slightly and trembled."

[Narcotism.]

"Occasionally there were spontaneous attacks of severe, tearing, abdominal pain, starting posteriorly in the lower right side."

[Why not? Food was being given, stimulating peristalsis.]

" The abdomen was very tympanitic and tense, and could scarcely be touched; nevertheless, it was possible to determine upon the right side low down an area of dullness about the size of a hand with increased resistance; otherwise the note was tympanitic upon percussion."

[The reader will notice the frequency of the reports regarding the area of dullness and extension of tympanites. These frequent examinations are wearing on patients in this condition, and are of no consequence whatever; they start at nothing and end nowhere, except in the discomfort and often the death of the patient; they are practiced by too many physicians and should be discouraged for they represent a very bad habit and are harmful; they are pushed to a pernicious extent in some cases, for without doubt abscesses are ruptured by them. If the physicians were not satisfied by this time

without the need of laying on of hands, observation and analysis were lacking.]

"The diaphragm was raised; except for a small zone liver dullness was absent."

[Of what possible benefit was this knowledge under the circumstances?]

"Now and then there was grass-green vomitus which, the last time, contained a few brownish granules and had a fecal odor. Urine unchanged; micturition very painful; no feces."

[Proof positive that there was no peritonitis yet, and the indicating symptoms were those of opium.]

"Opium at first decidedly influenced the condition; the patient took daily 0.5 to 1.8, and since yesterday morphin subcutaneously 0.02 at a dose."

[Of course, anyone acquainted with opium knows that it loses its effect, but it never fails to do its damage. The daily intake of 7-3/4 grains to 27.5 grains must lead to trouble.]

"Ice bags were not well borne, and Priessnitz compresses were used continuously. The intake of food was reduced to almost nothing."

[Not one teaspoonful of food should have been given; under such treatment this case would have been very comfortable. Foods and drugs were the cause of the discomfort.]

"With a sharply circumscribed perityphlitic abscess there could be no doubt of the diagnosis of diffuse peritonitis nor of the indication for operation on account of the long continuance of the severe symptoms. But neither this proposition nor that of an exploratory laparotomy, the result of which might have induced the patient to yield, was accepted."

[It is an evidence of professional officiousness to say positively that there was a "sharply circumscribed perityphlitic abscess." How was it possible with meteorism as described, to say that there was a sharply circumscribed perityphlitic abscess? It was tacitly assuming a diagnostic skill that must test the strength of every American physician's credulity to the utmost. The long continuance of the severe symptoms was no fault of the disease. The worst case should be made comfortable in three days.

Just why diagnosing a perityphlitic abscess should have cleared the diagnostic atmosphere to such an extent as to justify one in declaring that, \_since the discovery of the abscess there could be

no doubt of diffuse peritonitis, \_is hard to understand. According to my training in the worth of differential diagnosis, I should look upon such a diagnosis as most excellent proof that the peritoneum was still intact, and, if the case were handled carefully, its \_intestine sacredness \_would remain free from the vandalizing influence of toxic infection.

I am not inclined to accept the diagnosis, for within twenty-four hours the abscess broke into the cecum, and if the case had advanced to perityphlitic abscess, the pus would have burrowed downward towards the groin and would not have terminated as early as it did. My reason for so believing is that we always have a typhlitic or appendicular abscess at first; which naturally opens into the bowel, but if the abscess be interfered with--handled roughly enough to rupture the pyogenic membrane--the pus is forced into the subperitoneal tissue where it may gather and become encysted, but this is exceedingly doubtful. When the pyogenic cyst is once broken the pus becomes diffused, and as it has no retaining membrane it burrows in all directions, and more or less of it is absorbed, causing pyemia.

The parts may be handled to such an extent that the abscess will be forced to develop low down toward the groin, so low that the natural outlet, through the intestine, will be impracticable; under such circumstances an outside opening with drainage is the only choice in the matter of treatment.

That the reader may understand that I have a very good foundation for my strenuous objections to the usual \_bimanual examinations practiced upon all appendicitis cases, \_I shall quote a description of what one of America's recognized diagnosticians, Dr. G. M. Edebohls, considers a correct examination and he declares that anything short of such an examination is useless and untrustworthy:

"The examiner, standing at the patient's right, begins the search for the appendix by applying two, three, or four fingers of his right hand, palm surface downward, almost flat upon the abdomen, at or near the umbilicus. While now he draws the examining fingers over the abdomen in a straight line from the umbilicus to the anterior superior spine of the right ileum, he notices successively the character of the various structures as they come beneath and escape from the fingers passing over them. \_In doing this the pressure exerted must be deep enough to recognize distinctly, along the whole route traversed by the examining fingers, the resistant surfaces of the posterior abdominal wall and of the pelvic brim. \_Only in this way can we positively feel the normal or the slightly enlarged appendix; pressure short of this must necessarily fail.

"Palpation with pressure short of reaching the posterior wall fails to give us any information of value; the soft and yielding structures simply glide away from the approaching finger. When, however, these same structures are compressed between the posterior abdominal wall, and the examining fingers, they are recognized with

a fair degree of distinctness. \_Pressure deep enough to recognize distinctly the posterior abdominal wall, the pelvic brim and the structures lying between them and the examining finger forms the whole secret of success in the practice of palpation of the vermiform appendix." \_

Can there be any wonder that this disease is so fulminating in the hands of the average medical man or can there be any surprise at the death rate? If such an examination were given to a well man and repeated as frequently as in the average appendicitis case, I say that the well man would soon suffer from some severe disease induced by bruising.

When appendicitis or typhlitis ends in an abscess, and the pus sac is ruptured by meddling, unskilled treatment, scientific or otherwise, causing the pus to burrow toward the groin, surgery is the only treatment; there is no hope of recovery in such a case without establishing thorough drainage, and this means skilled surgical treatment. It will positively be a miracle if such a patient recovers without an operation. I have seen these cases linger for two, three, and even five years. The type of cases that lingers so long is one that has an imperfect drainage, either into the bowels or through a fistulous outside opening.

What per cent of cases is of this type? That is hard to tell for the world is full of unskilled, heavy-handed manipulators.

I have seen quite a number of this type who had been brought into this unnecessary state by bungling doctors who were treating them for typhoid fever and its complications.

I say without fear of successful contradiction that there never was and never will be such a case unless it is made so by the worst sort of malpractice.

The fact that a diagnosis was made in spite of the tympanitic distention is proof that a dangerous force was used in doing so, converting a typhlitic abscess into a perityphlitic one, and doubtlessly causing premature rupture into the bowel. Any professional man, with the right regard for his patient's welfare, and the judicial understanding that qualifies him for taking the responsibility of directing the treatment of so important a case, would scarcely have laid the weight of his finger on an abdomen in such a dangerous condition. The symptoms and course of the malady up to that time should have told the real diagnostician that there was an abscess and that the abscess would rupture into the cecum if it were not meddled with.

No one with a proper understanding of his responsibility in such a case would have thought of undertaking an operation with a patient in the physical condition that this man was reported to be in. "The long continuance of the severe symptoms" is proof positive that the

"severe symptoms" were false or man-made.]

"Morphine was ordered subcutaneously, Priessnitz compresses to the abdomen, pellets of ice and meat jelly by mouth; eventually gastric ravage."

[Under the circumstances this was positively murderous.

Acknowledging to such treatment forces me to declare that the witness is incompetent, on the ground that no one has a right to incriminate himself. Nothing but the most positive malpractice could have brought a case of this kind to need gastric ravage, at this age and stage of the disease.]

\_"Upon the sixth day of the disease the picture changed." \_

[It is impossible for any case to arrive at this state of maturation in six days, if allowed to take its own course.]

"The complexion became sallow, the face elongated, the eyes hollow; the pulse was 140, small, but quite regular; the temperature was 101.3 degree F.;"

[The great discrepancy between the pulse and temperature was caused by the opium.]

"there was clammy perspiration and a cool skin, the hands were cold; frequently slight eructations occurred and, now and then, ineffectual or mild paroxysms of vomiting of a greenish yellow material with a slight fecal odor."

[All these symptoms were positively unnecessary. They were built by food and drugs.]

"The mind was clear; there was little pain."

[There was no reason why the mind should not be clear, and there should have been no pain after the third day.]

"The abdomen became somewhat softer, much less painful, and was readily palpated and percussed; there was a distinct resistance about the size of a hand, quite firm, and not fluctuating, and accompanied by marked dullness, around McBurney's point and downward, and only in this region severe stabbing pain; in other areas no dullness."

[The sallow complexion, elongated face, hollow eyes, pulse 140, temperature 101.3 degree F., clammy skin, cold extremities, greenish vomiting with fecal odor; all these symptoms would have been ominous of a fatal collapse had it not been that the symptoms were those of

narcotism, and not the symptoms of peritonitis as they were supposed to be. The small, regular and frequent pulse, the clammy perspiration, cool skin, cold hands, the eructations and mild paroxysms of vomiting of greenish yellow material with fecal odor, were symptoms produced by opium, food and morphine, as should have been fully apparent to any medical mind.

If the patient had been treated rationally from the start, at this stage of the disease he would have been as comfortable as at any time in his life, and after the opening of the abscess, forced though it was and followed by those symptoms, the patient still had a chance to get well if he had been left alone. See how he responded when given a little opportunity. Only twenty four hours after "the intake of food was reduced to almost nothing" the abdomen was softer and readily palpated and percussed. Just imagine, reader, what a difference there would have been in this case if the poor, miserable victim had been allowed the quiet he so much needed--if he had been left without daily bimanual examinations, food and drugs. The patient was kept in an abnormal state from the first hour that the doctoring began to the last hour of his life.]

"The symptoms were those of moderately severe \_peritoneal collapse;" \_

[In all the cases I have ever seen, I never knew of one showing any symptoms of collapse when the abscess ruptured.]

"the prognosis was very grave although not positively hopeless."

[If the symptoms had not been those of drug and food poisoning they were very grave.]

"Treatment: Small quantities of alcohol, to be followed by camphor."

[All the treatment necessary was absolute quiet--no drugs, no food--nothing until nature had time to react fully; then there would have been a full and speedy recovery. Alcohol and camphor were injurious to a body already suffering from opium paralysis, for all such drugs are heart depressants.

As I have said for years: The physician who gives drugs can't possibly know where his patient is. "Peritoneal collapse!" If there had been no narcotism there would have been no appearance of collapse. Every symptom giving the appearance of collapse was due to opium and morphine. I have seen such collapses for I have made them, and I have suffered all the torments possible in this world of medical uncertainty. For fifteen years after starting to practice my profession I labored hard with symptoms of my own making. After drug action and symptoms were once developed, I knew nothing more about my patients; it is true I guessed, and theorized, and reasoned, but in truth I did not know positively just where my patients were. I

consoled myself in those days with the thought that some day I should know; I believed that the fault was with me, that I was lacking in diagnostic ability, and that by hard work the time would come when I could read disease by its symptoms as well as the best, for I then thought the big men of the profession knew everything they pretended to know. This was my ambition, but the ability to size up symptoms under given conditions and tell their true worth forever eluded me and kept me in a state of unrest and discontent that was next to ruining my life. If light had not come when it did I should have abandoned the profession, but it came accidentally; it could not come otherwise for I did not know how to look for it. In the course of time I stored in my memory many cases that from accident or caprice had recovered without drugs and food. The satisfactory advance made by sick people, suffering from different diseases, when they were left without food or drugs, occurred so often, and with such unvarying regularity that it ceased to be a coincident--it was absurd for me to continue to explain the results by the hackneyed word "coincident," a word that is usually loaded with a lot of dogmatism, idleness and selfishness.

When I accepted the changes, taking place \_without medical aid, interruption and interference, \_as true cures, and so much a part of nature, and so intimately blended with the fixed laws of nature that like results could be looked for with the same degree of certainty that we look for the rising or setting of the sun, I busied myself in formulating a plan of cure as nearly in accordance with natural laws as I could. I am now, and have been for twenty years,

developing in this line, and I have gone far enough to declare that I have watched symptoms start, mature, and decline, and in this way have learned, by contrasting the symptoms in a given case that has not been medicated, with those of a similar case that has been medicated, to know the full value of symptoms under medication, as well as the full value of the symptoms when not under medication. This knowledge I am using in analyzing this medical classic and from my standpoint I can see how very easy it was for the author of the article under consideration to blunder along as he did. The doctor should not feel lonesome, however, for he has a world of company.]

"This condition lasted nearly twenty-four hours; then a very large and hard stool, followed by a thin one of hemorrhagico-purulent character was discharged and simultaneously a decided change took place. The appearance and pulse improved; the abdomen became softer with the exception of the marked resistance upon the right side low down, and the fever slightly remittent, its maximum 101 degree F. Vomiting did not recur; the patient moved about somewhat in bed and slept several hours in a half-lateral posture. Meat jelly and cold beef tea were swallowed."

[This feeding was the beginning of mistakes for the second round. If this patient had been left distressingly along until he could have thrown off his opium poison and become normal, and allowed the abscess to drain and close, all would have been well. This, I assume, would have been the ending if the vigorous examination that was given the patient the day before the collapse had not

prematurely ruptured the abscess both into the gut and into the subperitoneal region converting an appendicular abscess into a perityphlitic one.]

"Upon the next day there were several hemorrhagico-purulent stools, the urine was profuse and voided without pain. Nevertheless, firm, flat resistance was still felt in the lower right side and upon pressure there was lancinating pain no fever."

[What was the need of this everlasting, eternal, never-ending manipulating to find how much induration there was? Nothing but harm could come from such senseless officiousness. The punching, feeling and manipulating of patients without a reasonable excuse is a very bad habit, one that is peculiar to young and inexperienced men. There is no reason, no object, no purpose in it; it is just a bad habit.]

"There could be no doubt that the perityph abscess had ruptured into the intestine, and that in consequence of this the diffuse peritonitis had at once been relieved."

[There was no peritonitis up to this time, except the small portion that represented the peritoneal covering of the organ or organs involved in the primary infection. The peritoneal cavity, or the peritoneum as an organ, was not involved in this disease; hence it is an error to say that there was diffuse peritonitis which was at

once relieved by the rupturing of the abscess into the intestine. It is worth something to know the difference between a drug-created \_phantom \_peritonitis and a true peritonitis. It is not for the sake of controversy that I am taking exceptions to the opinions advanced in this case, neither is it because I delight in criticizing, differing from or finding fault with authority; I have a more laudable reason--one that I consider humane and justifiable--namely, to point out to the few who happen to read this book, a safe and life-preserving plan of treating one of the most talked about, and (because of bad--decidedly bad--treatment) one of the most fatal maladies of this age. To do this it is necessary to point out and teach these few how to reason on the subject, and how to weigh with something like exactness the various important symptoms that present themselves under varying styles of treatment.

If a young physician is guided in his opinions by authority--if he believes that the last word has been said, because he has the last book from the leading authority, and if said authority has not yet learned that there is a true and a phantom diffuse peritonitis, said young man is not in line for saving life; on the contrary, he is liable to mismanage and meet with as great a failure, and be the cause of as unnecessary a death as was the good doctor from whom we are quoting and of whose \_medical sophistry \_I am trying to give the true qualitative and quantitative analysis.

Rupture into the gut is exactly what will happen every time, in all cases, if left alone and no food nor drugs given.]

\_"Treatment: \_Warm, followed by hot, flaxseed poultices; rest, freshly expressed meat juice or beef tea, in all 200 grams; thin gruel made with milk, 200 grams; wine, 100 grams in twenty-four hours, small portions to be taken every two hours; no drugs."

[A little over six ounces of meat juice and six ounces of gruel made with milk! The starch contained in the gruel will always create gas in these cases and stimulate peristalsis; the gas inflates the cecum and drives the contents of the bowels into the abscess cavity; this sets up secondary inflammation. The meat juice and wine could have been left out to the patient's betterment. It is refreshing to know that no drugs were given, and if the case had been treated from the start on the no-drug plan the course and ending would have been very different. The poultices would have done as much good if they had been put on the leg of his bed, and much less harm.]

"This improvement continued for several days and even became more marked The abdomen returned to the norm with the exception of the ileo-cecal region; there was a small stool daily without recognizable pus; no fever.

"Upon the\_ twelfth day of the disease vomiting \_suddenly recurred with severe diffuse abdominal pain, marked meteorism, and fever to about 102.2 degree F.;"

[True, diffuse peritonitis set in at this time.]

"the symptoms increased in severity, and changed during the collapse, his temperature 97.3 degree F., pulse 160, thready, uneven; conspicuous facies hippocratica; no pain; a slight comatose condition, moderate meteorism, no movement of the bowels. Stimulants were without effect; subcutaneous saline infusion revived the patient but only for a short time? and death occurred the following morning upon the fourteenth day of the disease."

[Meteorism! What at is it? A blown-up condition of tile bowels. Gruel caused gas to form the gas was driven into the abscess cavity, reinfection took place? which ended in diffuse peritonitis. The patient's resistance was used up and, being exhausted he died. He had made a brave fight a against all sorts of odds but the second round was too much for him.]

\_"Autopsy:\_" Normal condition of the scrosa above the omentum: the appendix surrounded by adhesions embedded in fecal pus? gangrenous toward its terminal portion, and showing perforation; fecal calculus in the pus; appendix movable toward the cecum."

[Just what may be expected in all cases! Nature is always busy reinforcing weak points, but the modern physician and surgeon is too wily and artful for her; she can't always anticipate his moves,

hence she can't always fortify successfully.]

"Agglutinated point of rupture at the median periphery of the cecum near the ileo-cecal valve. The perityphlitic pus appeared to be sacculated by adherent intestinal coils, but beyond the adhesions in the free abdominal cavity below the omentum there was diffuse, fresh, fibrinous peritonitis and distributed here and there small quantities of thin, putrid pus (many bacteria, large quantities of streptococci and cold bacilli). The peritoneum was injected. of a delicate rose-red color, here and there covered with fine, mucus-like pseudo-membranes. Heart flabby."

[The autopsy showed nothing more than would be expected. The fresh peritonitis confirms what I say that a reinfection was forced because of the character of the food. The meteorism opposed relaxation and rest, two conditions positively necessary and without which healing can not take place. What was to hinder the heart from being flabby, Drugs and systemic infection are quite enough.

In proper hands this young man would not have been very sick; possibly his trouble would have been thrown off and the inflammation passed off by resolution.

The following should be of interest for it is a very \_scientific explanation \_of how the young man came to die:]

"The clinical history is in every respect typical and instructive.

"It shows us that the origin of peritonitis which is by far the most common, is in a diseased appendix. At the autopsy this was found necrotic and perforated. It is questionable whether the perforation existed from the onset of the disease; it is possible that at first an ulcer extending to the serosa caused an infection of the peritoneum; at all events this occurred acutely, and produced the sharply defined disease."

[I agree. The perforation brought on the relapse and the collapse.]

"The clinical abdominal symptoms in the first period of the malady pointed to the fact that at the onset there had been a diffuse inflammation of the peritoneum, and that later, by the adhesions to the appendix which were found at the autopsy an early encapsulation of pus had taken place in the ileo-cecal region; this produced a purulent softening in the wall of the cecum and led to the favorable rupture of pus into the intestine and to an immediate amelioration of the acute peritonitis. The point of rupture, however, then closed, and partly perhaps to the action of fresh infectious and toxic material, perhaps only to the perforation of the appendix, may be ascribed the exacerbation of the peritonitis, that is, a renewed attack which caused the death of the patient."

[The symptoms were those of intestinal putrefaction with local inflammation of the cecum and, as the history of the case has pointed out, was located in that part of the cecum giving attachment to the appendix, for the autopsy showed that the appendix was surrounded by adhesions and imbedded in fecal pus. Please note particularly: The appendix was found in a pus cavity--a perityphlitic abscess. Why shouldn't the appendix be necrosed? Located in a field of inflammation, blown up, distended beyond its vital integrity; why should it not become gangrenous, It doesn't matter when the perforation of the appendix took place for it is quite evident that there was not enough disease of the appendix to cause its perforation until after it had become encased in the abscess cavity, and if the young man could have been freed from the treatment he received and could have been given the necessary rest the abscess cavity would have emptied itself, necrosed appendix and all, into the bowel and he would have made a perfect recovery.

"The point of rupture closed!" How could a rupture into a distended gut close, The distention was greater after the rupture than before. Fresh infection could not take place without a power to force the putrefaction greater than the force that existed before the abscess broke into the cecum. Let us reason together: Nature fought successfully against heavy odds before the rupture. There was gas distention of bowels interfering by pressure with the circulation and increasing the area of destruction of tissue; frequent retching and vomiting interfering by stretching and probably tearing, threatening disruption to the plastic process that was going on to

close in the disorganizing and necrosing processes; the frequent examinations, and manipulations for diagnostic purposes, etc., but, in spite of all this opposition, fatal infection was successfully resisted; then, after the rupture and discharge, the relaxation, the calling off by nature of all her defenses, showed that the battle was won. All the defense yet left was the hard induration, "firm, flat resistance." This induration was quite sufficient to prevent reinfection, had there not been something out of the regular order to interfere. In this case there was a prostrated muscular system. The narcotic had left the patient without muscular power. The starchy food created gas, and the bowels, not having their natural tone, gave way to the gas until there was \_"Meteorism,"\_ not tympanites but meteorism which means to blow up or distend all that is possible.

Such a state as that means mechanical interference with every organ in the thoracic, abdominal and pelvic cavities, and, besides the pressure and interference in drainage and the blowing into the abscess cavity and into the pyogenic membrane gas loaded with infection, there was an almost fatal interference with the action of the heart and lungs. The prostrating effect on the muscular system of the septic or putrefactive poison was nothing to be compared to the paralyzing effect of opium. I believe this man would have survived every interference if the milk gruel had been left out, but acting as it did, it proved to be the last straw.]

"In regard to the fulminant symptoms at the onset of the disease,

however, it is more likely that even then perforation had already occurred, and I that the final and fatal exacerbation was in consequence of adhesions formed in the first period which were powerless to resist the entrance of organisms producing inflammation. The pus finally broke through the adhesions, and produced diffuse peritonitis."

[It is a technical point unnecessary to raise whether the adhesions formed in the first or the last period; they were formed without question; I and if they were formed in the beginning, as doubtless they were, they withstood the most severe and trying period of their existence, which was before the abscess broke into the bowels, and so far as being able to resist to the very last, there has been no evidence to prove that the last infection was because of any lack of power of resistance on their part for the autopsy showed them intact. It is doubtful if anything but sound tissue could have withstood the strain that was put upon this man's diseased cecum from gas distention. The infection-laden gas could find a way anywhere in diseased tissue and broken continuity. Why should the pus break through the adhesions and find its way into the peritoneum after they had been able to make an effectual resistance till the bulk of it had forced a passage into the bowel? Why should the adhesions have less power to resist when there is less strain upon them and also a patent outlet for the pus? I fear our German friend of "Die Deutsche Klinik" had "booze" in his logic when he was explaining how his patient came to die.]

"Moreover, the bacterial finding of streptococci and cold bacilli in the perityphlitic abscess is typical, and the limitation of the diffuse peritonitis to areas below the omentum is also instructive. This simultaneously prevented the invasion of organisms producing inflammation into the serous surfaces above."

[There is nothing strange about this for nature works for the purpose of preventing "serous surface" invasion, and it takes a deal of malpractice to force such an infection. If nature's provisions against peritoneal inflammation were not as great as they are, few people with intestinal putrefactive diseases, from cholera infantum in babyhood to proctitis in old age, would get well, for most of the treatment for one and all of these diseases is obstructive rather than conservative and helpful.]

"This strong man, aged 31, had previously regarded himself as perfectly well. Nothing indicated the danger in which he found himself and which had existed since the appearance of the fecal calculus. the time when this had formed being impossible to determine. The disease appeared acutely with fulminant symptoms."

[He was, indeed, unfortunate, but his greatest misfortune, as I see it, was his treatment. Every acute disease is fulminant, even indigestion is fulminant, but the force of the warring elements is soon expended and unless reinforced by fresh elements the fulmination must end.

In diseases such as typhoid fever, appendicitis and typhlitis, we have first of all a constitutional derangement brought on by errors of life. The general resistance is lowered from nerve-exhausting habits; the general tone of digestion is below par and the bowel contents are maintaining a higher toxic state than usual; we have added to this condition an unusual tax in a long run of hot weather, business worries or unusual mental, physical or digestive strain, following which acute intestinal indigestion manifests with a sudden explosion; or there takes place a transformation of the contents of the bowels into an intense putrefaction which infects a portion of the mucosa that has been rendered susceptible by pressure from fecal impaction, concretions, or any cause capable of devitalizing. If the infection takes place in Peyer's patches, typhoid fever is the consequence; if the local trouble is of the cecum, typhlitis will result, and if the local devitalization is in the appendix, brought on from the irritating effects of a fecal calculus, appendicitis will result.

These diseases may start in a fulminant manner as suggested--with an acute intestinal indigestion, which will die down as soon as all the elements that combine to set off this fulmination have expended their force and unless fresh material be added everything must settle down to a local trouble. Or if the primary irritation is subjected to a light form of toxic infection the development of the disease will be much more insidious and will require much more time to come to its maturity, or its fulminating stage.

The reason for this is that each person has a cultivated immunity to a given toxic state of the intestinal contents, and when from pressure or the irritation caused by a calculus. there is a denudation of the mucosa the infection that takes place has not the power to arouse a systemic resistance' but can cause only a local inflammation; this inflammation may end in ulceration, or it may cause a thickening of the parts and interfere with drainage from mucous or glandular pockets; then the locked up secretions become intensely toxic, and this sets up a new infection much greater than the first and powerful enough to cause the system to call out its militia to put down the rebellion. Now we have fulmination, but if food and drugs are withheld it ends soon.]

"Severe abdominal pain with tense abdominal walls, fever and vomiting form the characteristic triad in the first phase of the disease; less rapidly does meteorism appear. This depends upon whether the inflammation of the serosa quickly spreads or remains local. Peritoneal meteorism is peculiar. The abdomen is uniformly distended, balloon-like; the muscles as well as the rest of the abdominal walls are tense. It must be added, however, that in spite of the excruciating pain upon touch there is no sign of contraction of the abdominal muscles, of the "muscular resistance" \_(defense musculaire) \_which is so common on pressure in other forms of abdominal pain, particularly when circumscribed."

[Distention from any cause--or stretching of muscular fiber--causes paralysis for the time being.]

"The same is true of the diaphragm; it is forced upward, the muscles are therefore elongated and tense; but there is no evidence of active contractions. Abdominal respiration ceases; gradually then, as may be recognized by the limits of percussion, increasing loss of muscle tonus is added. In this case the autopsy showed that the peritonitis had not advanced up to the serosa of the diaphragm."

[The muscle tonus when a patient is under the influence of opiates cannot be reckoned with, for that drug paralyzes the muscles, and the bowels fill with gas as was seen in this case up to the day before the abscess ruptured; on that day feeding had been suspended, resulting in a decrease of gas and an amelioration of all the symptoms.]

"Among these signs pain, either spontaneous or upon touch, a rise in temperature, increased frequency of the pulse and, in general, the signs of severe illness, are to be looked upon as the local and general symptoms of a severe septic inflammation; vomiting, at least in the first stages of peritonitis, was due to decided reflex irritation of the numerous branches of the peritoneal nerves; the fecal discharges at the onset may be explained, but by no means invariably, as due to peristalsis acting reflexively. The constipation which followed this, however, as well as the meteorism,

must be attributed to a hypotonia and paralysis of the musculature of the intestine by collateral edema."

[Beautiful sophistry. Words well woven together are captivating and frequently dethrone reason. If I didn't happen to know better I might really believe the author of this contribution to medical science knew exactly what he was talking about.

The constipation in such diseases as this is caused by the fixing, or natural resistance to motion, which is always to be found in diseases of the bowels and is one of nature's conservative measures. The hypotonia or paralysis of the musculature was brought about by the opium; and it is certainly strange that educated men can build a symptom or condition by the administration of drugs and yet remain absolutely unconscious of the part they are playing, and proceed to build a beautiful theory explanatory of results.]

"The excessive abdominal pain, increased by movement and on the slightest pressure, caused the patient to remain motionless upon his back and to avoid the slightest movement of the abdomen either by speaking or coughing."

[This is a characteristic symptom when there is great distention of the bowels.]

"At the start the temperature was uniformly high, but later remissions in the pus fever were recognized."

[All fever would have disappeared had it not been that the intestinal putrefaction was kept alive by feeding.]

"The pulse from the onset was comparatively frequent, regular and somewhat tense.

"The vomitus was at first composed of the gastric contents, the bile of a peculiarly pure, grass-green, biliverdin color mixed with a yellowish chyme-like material, and in the later stages of the disease showed thin masses having a fecal odor\_ (ileus paralyticus).\_ In regard to the dejecta, the two passages at the onset of the disease pointed to increased peristalsis; this was of short duration, soon changing to the opposite condition, and until the rupture of the perityphlitic abscess absolute constipation existed."

[The vomiting would have gone to stay within three days if no drugs nor food had been given; as it was, when real vomiting ceased the opium nausea began.

This patient was not allowed to come into that state of peristaltic elimination that is due in all cases in three days at the farthest,

and which would have come to this man if food and drugs had been withheld.]

"Pain upon urination and strangury was due to inflammation of the peritoneal coat of the bladder, in which a noticeable irritation was produced by slight distention as well as by contraction of the bladder. The albuminuria was the well known infectio-toxic 'febrile' form; indicanuria was in proportion to tile fecal stasis.

"In the course of the next few days a new symptom was added to this group: Exudation, which was demonstrable both by palpation and percussion. It was the natural consequence of inflammation of the peritoneum, and was both of diagnostic value as indicating general peritonitis and of special value in that, more definitely than the pain, it pointed to the original seat of the affection, which, according to present indications, could only have been an internal incarceration following right-sided inguinal hernia, or femoral hernia, or appendicitis. As neither the history nor the general status (normal condition of the hernial rings) furnished any points of support for the first view, only the diagnosis of appendicitis, that is, of perforation of the appendix, could be made with that degree of certainty attainable in diseases of the abdominal cavity in general.

"After the appearance of these symptoms, a more or less firmly adherent but limited perityphlitic abscess, and a less intense

although well developed peritonitis in this region, were assumed; the latter, notwithstanding the painful meteorism, was not necessarily diffuse in the strict sense of the term; the omentum often protects the upper abdominal cavity from infection, as was proven in this case at the autopsy. It is possible that this diffuse peritonitis, which did not in the early period of the affection extend beyond the limited local focus, was not due to the intestinal contents and to bacteria, but chiefly to bacterial toxins which arose from the circumscribed original focus. This fact is pointed out by the prompt retrogression of the diffuse peritoneal symptoms after rupture of the abscess; the diffuse peritonitis of this stage might then be designated a nonbacterial 'chemical' inflammation, according to the terminology now in vogue; finally, it was positively a bacterial infection, although the postmortem finding of bacteria in the distant folds of the peritoneum is not proof of this; we know that during the terminal agony or after death these may wander a long distance from the perityphlitic focus."

[The author plays so fast and loose with the words, "diffuse peritonitis," that I am reminded of a remark made to me several years ago by a society lady who posed as a pace-setter in all matters pertaining to the intricacies of what one should and should not do. The subject was one that I did not know much about at that time, and upon which I am not much better informed at present. It was on diamonds. I complimented her on a very beautiful sunburst. She took the compliment modestly, of course. The center diamond was large and, I thought, of uncommon brilliancy, and I remarked, "That

center stone properly mounted would make a very fine solitaire." She then informed me that she once owned a \_cluster of solitaires.\_

The author tells us that at first the diffuse peritonitis probably did not extend beyond the local focus; this of course is exactly what I am contending for from first to last and I insist that there was not peritonitis proper until the occurrence of the fatal relapse.

It is somewhat surprising that this article should be selected to represent the last word on this subject, when the author builds his treatment upon diffuse peritonitis; then enters into a lengthy analysis and explanation of symptoms to fit the diagnosis and treatment and before he is through with the subject he declares that the \_diffusion is confined \_to the focus of infection.

If I did not know something of the worth of words I am not sure but such an excellent explanation might persuade me!! If I did not know from experience that all this is \_theory, beautiful theory, \_it might be very hard to resist!]

"After the symptoms of local and general inflammation with their secondary signs in the stomach and intestine had lasted for six days, suddenly a complete change took place: The nervous, anxious, extremely distressed patient became feeble and scarcely complained at all; his formerly congested face was pale and elongated, the nose

pointed and cool; the skin lost its turgescence and warmth and was covered with a cold sweat; the bodily temperature also fell, the pulse became small and frequent but remained quite regular, the abdomen became softer and to a great extent lost its sensitiveness; the vomiting decreased to a few painless attacks,"

[Wholly due to the opium and morphine given]

"and singultus disappeared: A picture which, to a certain extent, is a combination of collapse and narcosis although not to the degree of profound loss of consciousness, being the picture of an intoxication in sharp contrast to the preceding febrile state."

[That is exactly what I stated above--a case of narcotism. How is it possible that the author, recognizing the narcotism, feels it incumbent to give other explanations?]

"Just as the affection had suddenly developed to its full height at the onset of the disease, and much more swiftly than, for example, is the case in phlegmon of the external walls, so with extraordinary rapidity did the clinical picture assume a new type. In this respect we must consider the very great area of the peritoneal folds, their numerous lymphostomata, and their intimate relation to the circulation, and we are impressed with the fact that fluids and solubles, as well as formed products, are rapidly absorbed by the peritoneum.

"Somewhat less rapidly than this, but nevertheless in the course of a few hours, another change took place, a favorable turn following the rupture of pus into the intestine. Here we were dealing with a well known and familiar phenomenon; if this occurs in the peritoneum the effects are particularly well marked; similarly as in the case of a phlegmon which rapidly disappears with the discharge of pus even although the inflammation extend beyond the pus focus, the symptoms of diffuse peritonitis promptly disappeared after the rupture. Very likely, as has already been stated, the symptoms of diffuse peritonitis in the first stages of the disease are to be referred to a chemical inflammation of the serosa, i. e., one due to toxins and without the ingress of bacteria; and it must be remembered that the clinical picture of this chemical peritonitis cannot be differentiated from that of the severe bacterial form. With the rupture of the abscess, the entrance of poisons into the free peritoneal cavity, and their resorption by the extensive peritoneal surfaces, as well as the vomiting and the intestinal paralysis, ceased. The taking of nourishment again became possible.

"The point of rupture formed adhesions, the natural drainage of the peritoneal ichorous focus ceased, perhaps a new influx of inflammatory material from the perforated appendix also took place. There was a fresh relapse of the local peritonitis which extended beyond the boundaries of the limiting adhesions, and permitted the invasion by bacteria of the free abdominal cavity. This time the severe toxic picture of collapse immediately followed, and with

marked decrease in cardiac strength led to death.

"Doubtless the patient might have been saved in the first stages of the disease by the evacuation of the abscess; the incision would at first have acted similarly to spontaneous rupture into the intestine, but the relapse would have been prevented by permanent drainage, and a radical cure might have been brought about by the immediate or subsequent removal of the appendix.

"Opium, no doubt, had a favorable effect upon the affection. By relieving intestinal irritability, and by bringing about a mild degree of narcosis, the patient was kept quiet and this materially assisted in limiting the severe perityphlitic suppuration in the first stage of the disease."

[All of which is positively not true, as I have witnessed for years.]

"If, as it unfortunately happened, the point of rupture had not immediately closed again, if it had remained open until suppuration ceased and contraction and healing of the perforated appendix had taken place, opium would have been regarded as instrumental in saving the patient, and unquestionably, at least to some extent, justly so. Among other factors in the treatment, the relief to the intestine by the suspension of nourishment was of paramount importance. The subcutaneous saline infusion had an obvious but,

naturally, only a transitory effect."

The subcutaneous saline infusion is another ridiculous habit. It would really be amusing if it were not so tragic, to see patients driven to the edge of the great divide and then see the innocent doctor throw out an impotent life line.

The absolute innocence displayed by this professional man, from first to last, his belief in himself and the mechanism of his theory and practice exculpate him from the charge of carelessness, neglect of duty or even that he didn't know what he is doing. He does know what he is doing in a way. He works as exactly as a Waltham watch and he thinks about as much as the stem that winds the watch.

I cannot agree to the summing up of this case. There was not at any time, previous to the relapse and death of this patient, what we understand as peritonitis. A post-mortem examination might have shown the intra-peritoneal covering, of that portion of the cecum involved in the inflammation, slightly inflamed, but it is not reasonable to believe that the inflammation was of a toxic character unless adhesive inflammations can be so called.

Inflammation is always the same, it matters not what the \_exciting cause \_may be. It is an exaggerated physiological process. If there is inflammation of any part of the body it means that there is an exaggeration of function. Its intensity will be in keeping with the

exciting cause. If the cause is intense heat or cold, or a corroding acid or alkali, the local action may be great enough to destroy the part; the inflammation following will be of the contiguous structure outside of the killing range of the cause, and it will be a simple--non-toxic--inflammation unless the secretions thrown out in excess of the reparative need are retained by dressings or prevented in some other way from draining away. If these secretions are kept bound on the raw surface by dressings until they decompose--yes, until the fermentation causes germs--the wound will become infected, and to what extent will depend upon the amount of malpractice--carelessness or ignorance--to which the case is subjected.

If the inflammation is caused by decomposition or a toxic agent, the extent of the process will depend upon the integrity of the part infected and the state of the general health, also upon the local environment--such as pressure interfering with the circulation of the blood.

In this fatal case there was the constitutional derangement and the toxic state of the alimentary canal; then there was the exciting cause, sufficient to create a local infection the symptoms of which were given at the beginning of this description, and which lasted for a few days; during which time the patient, no doubt, was eating and possibly taking home remedies to move the bowels, etc. These preliminary symptoms were followed by a severe pain in the right lower abdominal region, followed with chills, fever, nausea,

vomiting and later by painful movements from the bowels, small in character, and soon after this distention of the bowels from gas.

During the few days of preliminary symptoms nature was going through the usual preparation of fixing the parts. The muscles were becoming rigid, which is one of nature's plans for protecting an inflamed part; the infection was striking deeper and arousing all the defenses. Possibly there had been a local inflammation of long standing, gradually degenerating into a fecal ulcer, which means that there was a spot of ulceration deep enough for fecal accumulation and the accumulation created fresh infection, which lighted up an active inflammation setting all the parts into defensive activity. The muscles of the abdomen--the bowels and all involved and contiguous parts--became set or fixed; and when this rigid state became established, the bowels below the cecum refused to receive the contents of the small intestine; hence when the peristaltic movement started at the head of the small intestine it found that an embargo had been laid on the cecum and lower bowels so that nothing could pass. This embargo took effect "about midday; he was seized with very severe pain." What was this pain? What is the pain that always attends obstruction of any kind? It is the desire for the bowels to move when they are unable, on account of the stoppage, to do so. Is there a reader who can't conceive of the terrible suffering that must come from such a state of the bowels, The pain is not from the spot inflammation, or ulceration, or the forming abscess, whichever is the exciting cause of all this trouble; for, if it wore, the pain would not stop in three days, or

after the patient has been fasted long enough for the peristaltic movements to subside side. No, the local inflammation is not sufficient within itself to cause any more pain than this patient had the few days before he went to bed; it takes obstruction to bring suffering, and even obstruction will not cause pain \_per se, \_for this is proven in all cases rightly treated. As soon as the stomach and upper bowels are rested from food and drugs, all pain is gone and will never return unless the patient is badly handled.

In this case opium and morphine were given; this was very bad treatment, for these drugs always produce nausea and vomiting, exactly what was not desired because of the evil effect the retching had on the forming abscess. It is true that these cases frequently vomit the first three days after the obstruction, but there is practically no danger from retching that early in the disease.

Again, the opium masked the case dreadfully; for it produced vomiting at that stage of the case when there should have been no trouble with the stomach at all, and induced a tympanites that was mistaken for the same state brought on by peritonitis.

In this case the doctor was in a mental mist from the beginning to the end; notwithstanding he was so confident that he knew all about his patient, that he has given the case a careful summing up so that it may be put with the medical classics.

The doctor is in error when he gives the name of "Acute, Diffuse

Peritonitis." The case could not have been peritoneal perforation at the start, for the symptoms do not justify the diagnosis. A perforation causing diffuse peritonitis so early would have a higher pulse and temperature, and death would have followed within a few hours.

I can believe that there might have been an ulcer extending to the peritoneal covering, and this set up local peritonitis; but there was not at any time before the fatal relapse, a toxic inflammation within the peritoneal cavity; hence there was not diffuse peritonitis, and there could not have been without complete perforation which would have ended the case in death very soon.

In this case the point of infection was walled in, as all such cases are, with exudates and whether the appendix was primarily affected or not doesn't matter; it was within this enclosure and found to be ruptured, which is common; but its rupture was of no consequence because the escaped contents were in the abscess cavity that finally emptied into the cecum, the natural outlet in all these cases if they are left to nature and not officiously fingered--thumbed and punched to death.

The distinction drawn by this author between toxic and bacterial peritonitis is, to my mind, a distinction without a difference.

In this case the tympanites following the obstruction was due to the

fact that the gas in the bowels was retained for a few days because of the completeness of the obstruction, and would have passed off in three days had it not been for the paralyzing effect of the opium; hence the distention that came from gas was succeeded by the distention peculiar to opium and caused the doctor to believe that he had a case of diffuse peritonitis when, in fact, he had a case of gas distention due to morphine paralysis. The morphine directly and indirectly weakened the heart. The distention of the bowels was a constant interference. The pulse at the start was fine at 112, but in six days it had increased to 140 and finally reached 160.

## CHAPTER VIII

The following case comes to my mind, for some of the initial symptoms are similar to those of the case just described: M. B., age 42, farmer, was taken sick with the usual symptoms of appendicitis as near as I could get the history from his wife, who was his nurse. He lived twenty miles from Denver. When he was taken sick he called a local physician who treated him for \_bilious diarrhea. \_The drugs used, as near as the wife could remember, were small doses of calomel followed with salts to correct the liver, morphine for pain, and bismuth and pepsin for digestion and diarrhea, and quinine to break the fever; also hot applications on the bowels.

The pain was so great that morphine had been given quite freely. At the end of one week the sick man, being no better, declared that he

would go to Denver and consult another physician. When he told his physician what his intentions were, the doctor advised him not to attempt the trip himself, for he was too sick, but to send for the physician. The sick man was willful and forceful, and he was also afraid of the cost; and, being a plucky fellow, he declared that he could go just as well as not and that he would and he did.

His wife was a large, strong woman and gave him valuable assistance, but I never have understood how it was possible for so sick a man to make the journey from his home to my office. He was obliged to help himself a great deal in climbing in and out of ordinary conveyances to reach the train and, when in Denver, with his wife's assistance, he walked a half block to the street car; then from the car to my office he was obliged to walk one block and at last climb one flight of stairs. When they came into my office the wife was almost carrying him. I saw at a glance that he was a desperately sick man, and before I attempted to examine him I had him lie down for a while.

He had no history of any previous sickness; he had always been very healthy, and his life had been spent in hard work in the open air.

The general appearance of the man was that of one suffering from diffuse peritonitis. The abdomen was enormously distended; this symptom more than any other caused me to fear and wonder--fear that rupture would take place before he could be put to bed, and wonder

how it was possible for a man to be out of bed and go through what he had gone through that morning without causing a fatal injury of some kind. The distention, I was informed, had been gradually coming on from the first, and he had been given morphine to control the pain from the first day of his illness. When they gave me this information I knew that the tympanites was due to narcotic paralysis, instead of coming from perforative, septic peritonitis, as the general appearance and symptoms indicated. This reasoning gave me hope in spite of the formidable appearance of the case.

The pulse was 130, temperature 102 degree F., in the forenoon; he had been troubled with nausea a great deal, but with the exception of one or two vomiting spells, the first and second day, the nausea did not often cause retching. The mouth and lips were dry, tongue coated, bad taste in mouth and breath very offensive.

The reason there had not been more vomiting in this case was because there was diarrhea at first and not quite so much locked up fecal matter as common. The bowels had been relieved of the usual accumulation more than is common to the majority of such diseases before the swelling and fixation had become established.

There is a small percentage of people who are not quite so irritable as others; in these the contraction, constriction or fixation--the embargo laid on these parts by nature in her conservative effort at preventing movement--is not established quite so early, and the

efforts on the part of doctors to force a movement are more successful in cleaning out a part of the accumulation; or there may come a diarrhea from the putrefactive poisoning which is causing the infection of the cecum or appendix and leading to abscess, and this causes a partial cleaning out before fixation is established; in these cases there is never so much vomiting nor nausea, neither do they suffer so much pain for there is not the usual accumulation in the alimentary canal to excite the peristaltic movement.

The history that the patient and his wife gave me from memory was that the urine had been scant, and at times painful to pass. There had been from the start severe pain in the lower bowels, but neither the patient nor his wife could remember if there had been more pain on right, lower frontal region than anywhere else; they both declared that the pain was all through the bowels and that there was much bearing down like unto the pain of a diarrhea.

Breathing was shallow, of course; it never is otherwise in severe abdominal distention.

I scarcely touched the abdomen, for I knew I dare not press, in percussing, enough to distinguish any sound except the tympanitic. It has never been my custom to allow my curiosity to run away with my judgment, and cause me to make needless examinations.

All examinations are needless when, it matters not what the

diagnosis can or must be, the treatment will be the same. All possible bowel troubles which present the same general symptoms of the disease I am here describing, must receive a like general treatment. This being true, it matters not what the difference is, there cannot be a variation requiring a bimanual examination to differentiate it that will justify the risk. All examinations are needless and criminal when there is a possibility of rupturing an abscess. Especially is this true when it is a\_ positive fact \_that all typhlitic and appendicular abscesses will open into the bowels if allowed to do so.

In this case I reasoned as follows: This must be a case of abscess, for the signs of obstruction are not those of complete obstruction, such as are seen in hernias, volvulus, constricting bands and many other causes not necessary to mention. If there were complete obstruction there would be increasing nausea and vomiting, ending in collapse and death. This tympanites cannot be from peritonitis for perforation would be necessary to cause it and nothing would stop the progress after it had once started except to open the cavity wash and drain. Hence this cannot be peritonitis, for there has been no operation and the patient still lives. It can be distention from the effects of morphine, but there must be more than morphine paralysis, for there is a temperature of 102 degree to 103 degree F., and there has been, so the wife says, a temperature of 104 degree F. The pulse rate being 130 does not indicate fever nor exhaustion, and is not in keeping with the temperature nor physical strength, hence the rapidity must be partly due to pressure on the

diaphragm from the gas distention and partly from the paralyzing effect that opium has on the heart.

The professional reader will see that I have by my analysis eliminated much of the formidableness that the physical appearance gives to this case, but I would not have you believe that this man was not a desperately sick man even if I have accounted for the dangerous symptoms. The fact is, if the pronounced symptoms had been what they appeared to be, the man would have been saved his trip to me, for he would have been dead.

The farmer had learned from experience that the less he put in his stomach the better he felt; hence, for a day or two before he left his home to consult me, he had refused food and drugs and had taken very little water.

After giving the sick man a rest in my office I had his wife take him to the home of a friend with whom they had arranged to stay while in the city. In a few hours I visited him and made the following prescriptions and proscriptions: Positively no food, not one teaspoonful of anything except water. An enema of half a gallon of tepid water to be used once each day for the purpose of clearing out the bowels below the constriction, and I advised against violence--rough handling. A hot water jug to the feet, fee to the abdomen, all the fresh air possible in his bedroom and absolute quiet. If nauseated, enough water to control thirst was to be used

by enema; if the stomach was all right all the water desired by mouth.

I called the second day; the patient had slept some--he thought about three hours of broken rest--feeling fairly comfortable; pulse 120, temperature 101 degree F. at 9:00 a.m.; 102 degree F. at 5:00 p. m. Third day: Temperature 100 degree F. at 9:00 a. m.; 101 degree F. at 5:00 p. m.; one-third of the tympanites gone; slept six hours; hungry and demanding food. I said, "No, you get no food until the bowels move." The ice was taken off the bowels; hot cloths were substituted.

The fourth day the temperature in the morning was 100 degree F.; in the afternoon 101 degree F., pulse 100; slept well, hungry, bowel distention reduced fifty per cent. I touched him very lightly and found enough to confirm my diagnosis of typhlitic abscess; this was the first time I had felt that I was justified in attempting to confirm my suspicions, and even this examination could not be called a palpation, for I put no weight upon the abdomen. The patient was very dissatisfied because I would not allow him food. I said, "No. you can't eat until your bowels move." "How soon will they move!" he asked in an irritating and ungracious manner, to which I replied, "Your God only knows, and He won't tell."

Fifth day about the same, a little better; very ugly because I would not allow him food. He said: "I don't believe there is anything the

matter with me; you are holding me down."

Sixth day about the same, feeling fine, sleeping fine and \_starving to death. \_He made himself so unpleasant by his clamoring for food that I permitted his wife to give him a half dozen Tokay grapes. He had scarcely swallowed the sixth when he had all the pain he wanted. His wife came to my office in great excitement: "Doctor, please come at once to see my husband; he is much worse, he is in agony with his bowels." My answer was: "Go back and renew your hot applications to the bowels and tell your husband I permitted him to eat the grapes because he had been so unkind and ungrateful for the comfort that had been given him; tell him that I knew the grapes would give him pain and that the pain will not wear off entirely for twelve hours, and that I will not see him before tomorrow morning."

I called as I agreed to do the next day, the seventh day since the case came under my management, and the fourteenth day from the beginning of the disease. The sick man was out of humor. To my question, "Would you like something to eat!" he drawled, "Na-a-aw! I never intend to eat any more; but I would like to know when my bowels are going to move." Of course I could not tell him any more than I had told him before, namely, that under such circumstances they usually require from fourteen to twenty-eight days.

From this time on every day was much the same; no elevation in temperature, and the pulse ranged from eighty to occasionally one

hundred; no pain, sleep good, that is, as good as people generally sleep who are on a continuous fast--under a continuous fast the sleep is good but not heavy nor long at a time.

It is a fact that when these cases are properly handled they are not sick after the first week; they do not look sick; they get to thinking that it is folly to stay in bed and live without food, and of course their neighbors know that there isn't anything the matter with them; that the doctor is starving them to death. Quite a number of my patients have brought themselves near death's door from disobeying instructions and taking the advice of knowing neighbors. They were persuaded to "eat"--"eat all you want, for the doctor will not know it."

This is one disease that will give the disloyalty of the patient away every time.

On the morning of the nineteenth day of his sickness, and the twelfth day of my services, I called to see the sick man, and before I could ask him a question he shot out his hand toward me and exclaimed, "My bowels moved at four o'clock this morning! I want a beefsteak for my breakfast!" I congratulated him on his fine condition and ordered him a dish of mutton broth. This disgusted him thoroughly, and his reply was in kind: "A dish of broth! After fasting two days on my own prescription, and then twelve days on yours, I am to be rewarded with a dish of broth." I explained that

he had a large abscess cavity that would require several days to empty, collapse and draw together, and if he should eat solid foods too soon he would run the risk of cultivating chronic appendicitis--recurring appendicitis. I advised him to live on liquid foods for three or four days, and after that he could have solid foods if he would practice thorough mastication.

The action from the bowels had been saved for me; there was an ordinary chamber half full; it looked to me like at least a half gallon of fecal matter, pus and blood; it was dreadfully offensive. Six hours after the first movement I was informed that he had another movement very similar in quantity and consistency; this movement I did not see, for I did not visit the man after the morning of the nineteenth. He left for his home on the morning of the twenty-third and has had excellent health ever since.

If this man had been subjected to daily examinations food and drugs, would he have presented the same symptoms! Indeed the tympanites alone would have killed him. Was his case \_diffuse peritonitis? \_No! For if there had been intra-peritoneal infection in the first place, it would have indicated perforation, and then, without the opening up of the peritoneal cavity, washing and draining, there would have been a funeral.

The following is a similar case except that the woman came into my hands the first day of her sickness. Her symptoms were: Nausea,

vomiting and pain all over the bowels as she said--as much pain in one place as another--temperature 102 degree F., which ran up to 103 degree F. in the p. m.; pulse 110, and a history of constipation. She had several movements from the bowels through the night before I was called in the morning. The movements were small and accompanied with much griping; the patient said that if she could have a good cleaning out of the bowels she felt that she would be well. I informed her that she had appendicitis and that she would be compelled to remain very quiet in bed, with ice applied locally until the temperature was reduced to 101 degree F., or less, and then substitute hot applications. For the pain I had her stay in the hot bath until relieved, and when the pain returned she was to go to the bath again. The bath water was ordered to be used as hot as possible. Every night an enema of warm water. The treatment did not vary from the farmer's and the results were the same--her bowels moved on the nineteenth day; the consistency and amount were about the same, and I had her exercise care about her eating for a week after the abscess discharged. From the end of the first week of her sickness until the abscess broke she expressed herself freely that she did not believe there was anything the matter, and that going without food when one felt well was foolish; however, she obeyed and had no suffering.

A son of the woman whose case I have reported above was taken down the same way one year after. I explained the situation and told the young man that he must keep quiet and go without food just as his mother did the year before. I did not think it necessary to visit

him very often, for he knew how his mother was treated, besides she was with him to advise.

Within three days he was comfortable, and remained so until about the seventh or eighth day, when he decided he would take a glass of milk and not say anything to me about it. He took the milk and was writhing in pain within two hours. I was sent for, and of course asked what he had eaten, whereupon he told me that he had taken milk. Within twenty-four hours he was easy and cured of his desire to eat until ready for it. This case terminated by rupture of the abscess on the fifteenth day.

Neither of these cases had any tympanites worth mentioning. All cases that I have ever seen with great bowel distention are those coming into my care after being subjected to the usual feeding and medicating.

Now we will go over Dr. Vierordt's case in connection with mine and see if his case of diffuse peritonitis is not about as near like my case as it is possible to have two cases.

His patient was a merchant 31 years old, mine a farmer 42 years old. There is a difference in these two men, caused by their occupations. The merchant could not have made the trip to my office as did the farmer, for several reasons: First, merchants are pampered; they are not used to discomfort; they are not used to waiting upon themselves

as country men are. When they are sick they send for the doctor; the farmer goes to the doctor. The merchant has learned the habit of spending his money and the farmer has learned the habit of saving his, and perhaps that one statement is enough for the discerning.

The merchant was too sick to make such a trip and he knew it. The farmer was too sick to make the trip and he didn't know it. This is the vital difference between these two cases.

The merchant was tympanitic from the first day of his prostration, which is not usual. On the fourth day his temperature was 104 degree F., pulse 120 to 136, mind clear but anxious. His lesser symptoms were about like the farmer's, with the exception that the merchant had been given more narcotics and presented more of the dorsal decubitus than the farmer. Laymen, the plain everyday meaning of dorsal decubitus is lying on the back. In low forms of disease it is looked upon as an unfavorable symptom. Where much morphine has been given it denotes prostration peculiar to the drug. My patient was on his back for several days, because it is impossible for a patient to stay on either side while suffering from severe tympanites.

On the sixth day the merchant's pulse was 140 and the temperature 101.3 degree F., which proves, if nothing else does, that he did not have diffuse peritonitis, for it is impossible for a patient to have \_acute, diffuse peritonitis, \_be drugged and fed, and go through the daily physical examinations such as he was put through, and on the

day before the abscess breaks into the bowels show a temperature of 101.3 degree F. The pulse counts for nothing in such a case as this; I did not look upon the farmer's pulse as indicative of any serious state, for I knew the opium had caused it. If the pulse of either the merchant or the farmer had been due to peritonitis death would have ended either one before his abscess had broken. In fact diffuse peritonitis comes from perforation with discharge of the abscess contents into the peritoneal cavity, and it always spells death.

When vomiting recurs, or continues after the third day, there is malpractice, or there is a serious complication, or there is a mistaken diagnosis.

It is well to get this one fact well in mind, namely, appendicular and typhlitic abscesses are not accompanied with complete obstruction; hence, when the symptoms are so profound as to point to absolute obstruction, no delay should be made in having the abdomen opened and the obstruction, whatever it is, should be removed at once.

The fact that the bowels do not move in from twelve to twenty-one days should not be looked upon as total obstruction. What obstruction there is is due to fixation of the parts and is truly a physiological rest--it is on the order of the fixation of an inflamed joint--the joint appears to be ankylosed, but as soon as the pain is gone it becomes as movable as ever.

Again, if the case is really obstruction it will grow worse daily even if my plan of treatment--absolute rest from everything--is carried out to the letter.

There is not any danger of the abscess opening anywhere except into the bowels, for that is in the line of least resistance and, if it fails to do so, it is because it is badly managed.

## CHAPTER IX

\_I have appendicitis; what shall I do to be saved? \_Don't eat anything until well. Use a stomach tube and wash out the stomach; then use a fountain syringe and wash out the bowels; take a hot bath as hot as can be borne, and stay in the tub until all the pain is gone, or as long as possible; then go to bed, put ice on the bowels and keep it on until the temperature is reduced to 101 degree F., then apply hot applications or poultices and continue the poulticing until the bowels move, and the bowels will not move until the abscess breaks.

Use an enema every night as a routine, and drink all the water desired, when there is no nausea.

Don't manipulate the forming abscess, nor allow anyone else to do

so.

If you are really in doubt about what you have, think over what I have written about strangulation or positive obstruction, and if you think you have it, send for the best physician you know and get his opinion of whether you have obstruction or not, but don't allow him to burst an abscess with his manipulations! For, my word for it, if he can't weigh symptoms and tell whether or not you have complete obstruction without punching holes in you with his bimanual manipulation, neither would he be able to do so after examining you.

I do not say this because I like to make it hard for doctors, but I prefer staying the heavy hand of the doctor to keeping still and allowing him unwittingly to kill his patient.

First of all wash the stomach out with a siphon tube, then see to it that nothing but water goes into the stomach until the bowels move.

I put my cases on a complete fast, give no drugs, apply ice to the region of the appendix, keep the feet warm, and keep the patient in an atmosphere of hope and belief in his recovery, and a recovery always follows. I prescribe an enema of warm water once or twice daily, getting all the water possible into the bowels.

These patients are so comfortable after the second or third day that

it is hard to make them or their friends believe that they have appendicitis. People are so afraid that they will starve to death if they have no food for a few days that they make haste to get put on a killing treatment rather than run any risk. This fear is absurd. Physicians are largely to blame for this popular error, for those who do not feed by mouth still have the idea that their patients must have nourishment, so they feed by rectum. This is also absurd. What the patient needs is rest, and the more complete the rest the quicker the recovery. Give the patient all the water he wants.

The bowels will move in fourteen to twenty eight days from the beginning of the attack. Then the fast can be broken by giving a glass of hot milk, which is to be chewed well, or given in the form of junket; this is to be repeated three times a day for a week, or give the milk twice a day and a plate of mutton broth for the third meal. I do not give solid food because there is a large abscess cavity opening into the bowels, and if solid food is given before it has time to close, it is liable to find its way into this cavity, thereby preventing healing, and bringing on a chronic condition that will ultimately end in death. The less food taken for one week after the discharge takes place, the better. Any rational individual should see that withholding food is the proper treatment. Milk should be thoroughly mixed with saliva or not taken at all. Remember that if milk is not taken with great deliberation, and great care given to thoroughly insalivate each sip, then it amounts to the same thing as eating solid food.

Milk is a solid food when taken into the stomach as a beverage or a drink like water.

In appendicitis all nature cries out for rest, and if it is given 99 out of every 100 cases will get well and there will be no suffering and no danger after the first seventy-two hours.

The ordinary physician sends for a surgeon, and if he is a victim of the surgical mania the patient must be operated upon at once, for if twelve or twenty-four hours are given, the conditions may clear up and an operation will be unnecessary. The majority of surgeons feel that they will forfeit their right to heaven if they do not cut at once. The consequence is that there are many patients operated upon who are as innocent of having the disease as the surgeon is innocent of a knowledge of a better plan of treatment.

Of course, the surgeon declares that pus should be let out by cutting into it, or it is liable to break into the peritoneal cavity and cause death. This is positively not the truth, for when an abscess threatens, nature at once proceeds to throw a wall around in order to avoid accidents. All around the point of prospective abscesses, heavy walls of adhesions are built, and if nature is not interfered with, the abscess will break into the gut, because it is the point of least resistance, and it is also the point favored by gravity. The surgeons when they operate in these cases work exactly opposite to nature.

If these abscesses are allowed to open into the bowel and solid food is kept away from the patient, full and uncomplicated recovery will take place. If solid food is given too soon it is liable to find its way into the abscess cavity and cause a blind fistula, which may take on acute inflammation at any time. These cases then become chronic and are called recurring appendicitis. It is sound surgery, in dealing with abscesses, to find, if possible, the direction nature is taking to evacuate pus and be guided by this suggestion in evacuating a pus cavity.

In order to cure appendicitis you must remove the cause. Cutting off the appendix, opening an abscess, withholding food till the acute symptoms have passed; such treatment is not removing the cause. Nothing short of changing the eating habits of the patient will cure, so the surgeon who knows nothing about food and its action--what part improper eating has to do with bringing on the disease--will never be able to cure.

Operating for this disease will fall into disrepute in time, for there are already cases recurring and the second and third operation will be necessary among those who survived the first. There is not a scintilla of logical reasoning in defense of the operation. Because some get well after an operation is no proof that the operation was necessary; fortunately for the operator there is no way to prove that the case operated upon would have recovered without the

operation. If the case be not complicated by bungling treatment an operation is uncalled for. If a case has been medicated and fed to death--abused to the extent of causing a rupture into the peritoneal cavity--surgery must be resorted to as the only hope.

If a case survive an operation the patient is no wiser than he was before, and knows nothing about avoiding another attack, for let it be said loud enough to be heard by all, and with no fear of successful contradiction, that if every child at birth should have the appendix removed there would not be one case less of appendicitis than there is with the appendix intact. Of course, technically there could be no appendicitis without an appendix, but the cecum would become inflamed just as readily.

No amount of forcing drugs given by the mouth can induce a movement from above the constriction, but a great amount of pain can be produced by attempting to force a passage. No one comprehending the true state of affairs would be foolhardy enough to try to force the bowels to move. The reader can readily imagine the great pain and danger liable to follow cathartic drugs, for they stimulate severe peristaltic contractions. The contractions drive the contents of the small intestine against the inflamed cut-off, but there it must stop. If the parts have become softened, which they do by the inflammation, there is danger of perforation and an escape of the contents of the bowels into the peritoneal cavity, after which diffuse peritonitis and death follow. Surgery can hardly hope to save such patients; in fact they usually die; this is why the

surgeon recommends an early operation.

If all cases are to be so abused and if there were no better way to treat them I also should say, operate at once as soon as the disease is discovered; but I know from years of experience that there is a better way to care for these patients.

## CHAPTER X

Allow me to repeat: As soon as a case is diagnosed the proper treatment is to stop all medicine and food, for they excite movement, and this should be avoided. Give nothing but water. Keep ice over the inflamed spot. Keep the patient quiet, and the feet warm. There is absolutely nothing to be done until the bowels move, which will take place in from fourteen to twenty-eight days. The patient will not starve to death, nor will there be any danger that the abscess will open anywhere except into the bowels. After the bowels move, one glass of hot milk is to be given three times a day, so there will be no danger of solid food finding its way into the cavity of the abscess.

To be safe I insist on a fluid diet for a week after the bowels move, and a light diet for two or three weeks more. Cases taken through in this way, and then instructed in never allowing the bowels to become loaded again, will not only make a good recovery, but there is no tendency for the disease to return if the patient is

prudent. I say that there need not be a death from this disease if these suggestions are properly carried out. The cases that die every year are killed by food and medicine.

Surgery has gained its reputation in these cases because of the stupidity of the average physician and patient. Cases taken through in this way are comparatively comfortable; they may pretend to suffer from hunger, but it is principally imagination. If my plan were generally adopted the dread of this disease would disappear; surgeons would get left on some fat fees, and the undertaker would look glum after the fall crop.

There are a few laymen so willful and incorrigible that they can't be depended upon to follow instructions. They will break rules, be imprudent in eating, and in many ways disregard their own interests. Such cases should be sent to the surgeons as early as possible, before they have time to complicate their disease and make a complete recovery impossible; however, people with such temperaments usually find an early grave and they might as well go by the surgical route as any other.