

## **The surgical significance of abdominal pain / by James P. Warbasse.**

### **Contributors**

Warbasse, James Peter, 1866-1957.  
Royal College of Surgeons of England

### **Publication/Creation**

Brooklyn : Eagle Press, 1912.

### **Persistent URL**

<https://wellcomecollection.org/works/nsyagqfe>

### **Provider**

Royal College of Surgeons

### **License and attribution**

This material has been provided by This material has been provided by The Royal College of Surgeons of England. The original may be consulted at The Royal College of Surgeons of England. where the originals may be consulted. Conditions of use: it is possible this item is protected by copyright and/or related rights. You are free to use this item in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s).



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

9  
The Surgical Significance of  
Abdominal Pain

BY

JAMES P. WARBASSE, M.D.

BROOKLYN, NEW YORK



REPRINTED FROM  
LONG ISLAND MEDICAL JOURNAL  
MAY, 1912







## THE SURGICAL SIGNIFICANCE OF ABDOMINAL PAIN.\*

By James P. Warbasse, M.D.,

of Brooklyn, New York

THE consideration of abdominal pain from a surgical standpoint demands, first, that an examination shall be made. One of the weaknesses of general practice is the disposition on the part of the practitioner to prescribe for abdominal pains without exposing the abdomen and palpating the naked body. I, personally, am constantly hearing of the horrible results of this neglect, and so, while none of you may be aware of such neglect, I assure you that I have it upon good authority that it does exist.

It is quite essential to differentiate between the voluntary rigidity of the abdominal muscles and the involuntary or protective rigidity. That is something which I shall not take the time to discuss. To make this differentiation comes only from practice, but we are constantly seeing men of inexperience failing to differentiate between a voluntary rigidity (which a patient purposely maintains, either to deceive the examiner or because he is fearful of being hurt) and involuntary rigidity which cannot be controlled and which is entirely protective. I shall speak chiefly of colic.

As a matter of fact, colic embraces most of the abdominal pains. Colic is a disease of the peritoneum. I do not know that it is generally described in that sense, but if you will recall the conditions in which colic occurs, you will see that it takes place in hollow viscera which are covered by peritoneum. Indeed we have no colic of the tubes outside of the region of the peritoneum. In the upper gall tract, stones lodged in the hepatic ducts and surrounded by liver and connective tissue do not give rise to colic, but when the stones come down and engage in the common duct or the cystic duct, this symptom, which we call gall-stone colic, develops. Colic in the ureters, colic in the kidney, I conceive as being a peritoneal manifestation. When a stone passing through the ureter has passed the peritoneal region, the colic which characterizes its passage through the peritoneum-covered ureter ceases. Over-distension of the bladder gives rise to a pain which is comparable in every sense to a distension of any of these peritoneum-covered viscera, such as the intestinal colic with which we are familiar. Colic is a pain due to the distension of a viscus covered by peritoneum. It is possible that some of the physiologists present or medical internists may dispute this proposition.

Gastric ulcer I will discuss as the first surgical pain-producing condition. The pain may not necessarily be the prominent symptom. Usually it is referred to the epigastrium, whence it may radiate in

---

\*Stenographic report of a discussion before the Brooklyn Pathological Society, March 9, 1911.



various directions, generally toward the left subscapular region. The right subscapular region may be the seat of the reflex pain if the ulcer is at the extreme right side of the stomach. This pain is increased upon taking food. The pain does not come on immediately after the ingestion of food but usually about one-half hour; and it seems from a collection of autopsy findings in these cases, that the further away from the cardia the ulcer is located, the later the pain, so that if the ulcer is located near the pyloric end of the stomach, the pain may not begin for two or three hours after the ingestion of food. Epigastric tenderness is usually well marked, and often with rigidity of the recti muscles. This tenderness is definitely localized, as well as the pain, and may be given as characteristic of gastric ulcer.

Vomiting gives relief to this pain. Spasm of the pylorus with its concomitant symptoms may be induced by the presence of the ulcer and give the peculiar pain of spasm of the pylorus. The typical pain develops gradually. It is a burning or boring pain, and often radiates to the back or up into the precordium. It is regular in its occurrence and may be expected usually to come on with a fixed regularity after the ingestion of food. The patients speak of the pain pretty definitely as coming on with fairly certain regularity after eating. The tenderness is pronounced. It is sharply localized in a small area. Diffuse pain usually speaks against ulcer. Exceptionally it may be an aching or dull pain. It may occur only after some particular articles of diet which a patient finds disagree with him or after some dietary indiscretion.

Pain which is constant or is present before breakfast is rarely due to gastric ulcer. Pain beginning immediately upon taking food is also rarely due to gastric ulcer. In old ulcers the pain may be absent. A practical contribution to the subject will be found in a paper by Dudley Roberts, published in the *Medical Record* of the 17th of October, 1908.

Pain due to cancer of the stomach is variable in its character. It may be absent. There may be only a sense of discomfort after eating which cannot be characterized as pain. It is calculated by collecting large series of cases that pain is present in about 85 to 90 per cent. of the cases of gastric carcinoma. About one-half of the cases suffer severe pain. It may be continuous with exacerbations after eating, or it may be present only after eating. In some cases it appears only after the ingestion of solids. In pyloric cancer, that is, the cancer which is producing some obstruction to the emptying of the stomach, peristalsis causes the pain of obstruction which is relieved by vomiting. Usually this pain is referred to the epigastric region, occasionally passing through to the back, or in some cases felt only in the back. Absence of tenderness, as you are aware, in cancer of the stomach, is the feature which is generally counted upon to differentiate it from gastric ulcer. Sarcoma of the stomach (the few cases which have been studied) give the symptom of pain quite similar to the pain of cancer of the stomach.

In ulcer of the duodenum, the pain may not occur until three or four or even more hours after the ingestion of food which means that the pain is felt when the food is poured through the pylorus and enters the duodenum. Because of the slower digestion in the night, a patient who has taken a meal late in the day, may not suffer the pain of ulcer of the duodenum until more than four hours; six to eight hours may elapse. These patients are awakened in the night with the peculiar



pain. It seems that the pain may be relieved by again taking light food which apparently acts as a counter-irritant, as it were, causing a physiologic congestion of the stomach and a relief of the duodenal pain.

The pain due to pancreatic disease has been much studied recently. I would refer you for an admirable discussion of this subject, to a paper by Dr. H. G. Webster on the pathology and diagnosis of pancreatitis, published in the *New York State Journal of Medicine* (September, 1908), which contains a clear description of the pain of pancreatitis. These cases present a dull pain which occupies the middle of the abdomen (the umbilical and epigastric regions). It may radiate but is usually confined, and in the cases in which there is an acute pancreatitis the pain is constant. A healthy adult suddenly seized with a mid-abdominal pain, should prompt us to suspect acute pancreatitis, and the associated characteristic symptoms may be depended upon to clear up the diagnosis. Jaundice in pancreatic disease with this dull pain is often present and differentiates itself from the jaundice of a biliary disease (common duct obstruction) by the absence of the colic. The head of the pancreas presses the outlet of the common duct and produces a backing up of the bile without the obstruction colic.

In the bile tract, the pains which are encountered are rather characteristic. A valuable diagnostic expedient in this region is to hook the fingers up under the arch of the ribs and it will be observed, if the pain is due to obstructive or inflammatory disease of the bile tract, that the patient will not be able to take a full inspiration. In appendicitis, for example, if that test is tried, the patient will be able to take an inspiration; or, if the pain is due to gastric ulcer, the patient will inspire deeply. In cholelithiasis, the pain is usually not relieved by vomiting, which differentiates that on the other hand from pain of gastric ulcer which is commonly relieved by vomiting. Tenderness over the gall bladder usually indicates inflammation of that organ, but we should bear in mind that tenderness in that region may be due to hydronephrosis, to an inflammatory condition about the pylorus, or to ulcer of the duodenum. No intervals between the attacks of pain point to cholelithiasis. Pain is not usually present in malignant disease of the bile tract or at least is very slight.

In typhoid ulcer the pain usually begins when the ulcer perforates, but there is tenderness so soon as the peritoneum becomes involved. Palpation of the typhoid abdomen will elicit pain when typhoid ulcers are producing an infiltration of the peritoneum. Of course, these ulcers may not perforate, but it is commonly after such tenderness that perforation takes place; and we find in the histories of cases which have been palpated for pain, that there was usually pain (a distinct evidence of peritoneal infiltration) before the sudden and characteristic pain of perforation of the ulcer occurred.

Of the pain of appendicitis, I shall speak but briefly. As you are aware, it is referred at first to the umbilical region and is associated with the vomiting. It is a colicky pain which gradually migrates to the region of the appendix. In chronic appendicitis, the pain may be confusing. Indeed, there may be no pain at all. It may be simply a dull aching sensation or only present when the cecum is distended. The painful sensations and discomforts which are found in chronic appendicitis cover a large range. A sign of some interest, I think, in this connection, is the fact that pain, associated with appendicitis, is usually not directly at McBurney's point. Anatomically the base



of the appendix is usually at McBurney's point. If we carefully palpate the region of the pain, we find the most exquisitely tender spot somewhere in the neighborhood of McBurney's point, and if we make a dot on each of these two points, McBurney's point representing the base of the appendix, and the other point the point of greatest tenderness, and connect them by a line, that line will represent pretty generally the direction of the appendix. This is commonly a valuable thing to know before we open the abdomen.

The differentiation of the pain of appendicitis from other pains, I may speak of briefly. In tuberculosis of the cecum the pain is a more constant pain without the colicky feature of the appendicitis. In cancer of the cecum there is apt to be a pain which is colicky in the beginning, representing the symptom of a moderate degree of obstruction. The intestinal muscularis becoming hypertrophied forces the intestinal contents through the narrowed lumen giving rise to colicky pains. Later, there comes a time when the pain becomes that characteristic of acute intestinal obstruction. The pain of ureteral colic must also be differentiated.

The pain of rheumatoid arthritis of the vertebral joints affects the nerves leaving the vertebræ. This condition may produce a hypersensitiveness of the abdominal wall which has not infrequently been confused with appendicitis. In all of these reflex pains, however, the rigidity, which is partly a voluntary rigidity, yields to continuous pressure. It is not spastic like that which characterizes the involuntary protective rigidity. The pain of tabes dorsalis with abdominal crises must also be differentiated.

In herpes zoster of the 11th and 12th dorsal nerves and the 1st and 2nd lumbar nerves, there is a sharp boring pain with an exquisite sensitiveness of the abdominal wall, which must be differentiated from that of a lesion in an underlying organ; but here again continuous pressure causes the rigidity to yield. It has happened that the vesicles which appear in herpes zoster have been mistaken on the third or fourth day for vesicles due to applications to relieve pain.

In perityphlitis the pain is more of a steady discomfort without the colicky feature unless an appendicitis is superadded. Appendicular colic produces a pain quite characteristic without the distinct muscular protective rigidity. The rigidity, however, supervenes when infiltration of the appendix or an inflammation or infective condition develops. Intestinal colic, acute enteritis, right pneumonia, abscess of the right ovary, all produce right sided pain which must be differentiated from that of appendicitis.

In acute intestinal obstruction, the pain is a distinctly colicky pain. Here we have a distended viscus with its muscularis attempting to overcome an obstruction. This pain persists so long as the muscularis is attempting to overcome the obstructing condition. When sufficient absorption of toxins has taken place to paralyze the muscularis and to anesthetize to a degree the nerves of the bowel, the pain subsides, even though the bowel be greatly distended. Pain arising from the female generative organs I shall not take the time to speak of.

The most striking pain from the urinary organs is that of ureteral calculus, which is violent with reflex pain in the groin, scrotum or labia, and the colicky reflexes which tend to cause vomiting. This pain continues to be excruciating so long as the stone is engaged in the part of the ureter covered by peritoneum. The pain suddenly



stops when the stone returns to the pelvis of the kidney or enters the bladder. There is a pain, similar to that arising from urinary obstruction, due to angulation of the ureters; also a pain peculiar to movable kidney in which not only the ureter may become angulated and the passage of urine checked, but in which there is actually an angulation of the blood vessels as well, giving rise to a sudden excruciating pain radiating to the groin and as suddenly subsiding when the angulation is relieved by position or manipulation.

The pain of peritonitis, with which I shall close, is colicky for the reason that peritonitis does not give rise to any considerable pain unless it interferes with the function of some viscus covered by peritoneum. The pain which we observe in peritonitis is the pain which supervenes when the intestine has become paralyzed by infiltration of the muscularis with inflammatory products. Ordinarily, peritonitis itself, gives little or no pain. There is tenderness, to be sure, but the pain of peritonitis is secondary pain which is entirely comparable to the pain of intestinal obstruction. In peritonitis, a certain part of the bowel may become paralyzed and that part of the bowel acts precisely as a segment of bowel which is the seat of some obstructing condition. Indeed, the symptoms are the same. The bowel is paralyzed; it no longer propels along its contents. Material from above forced into this segment does not pass along. Peristalsis is paralyzed, and the pain in these cases is in the segment of intestine immediately above the bowel which is the seat of paralysis.











