peritoneum to reach the infected field; as a matter of fact, an approach to an infected area which at the outset allows the boundaries of this area to be determined and maintained by suitable packing is often better than an approach which conducts at once to the centre of the affected area. The McBurney incision is well established and its advantages well realized. In easy cases it is admirable, but the clean removal of a pelvic or a high retrocolic appendix may present considerable difficulty through this incision; so, too, the exposure of the pelvis in cases of pelvic peritonitis is inferior to that obtained either by the paramedian or Battle's incision. Incision for drainage of an abscess should be made as small as is compatible with good access, and in such a position as to afford the most direct route to the abscess cavity. Pelvic abscesses which are pressing down on to the anterior wall of the rectum should be opened through the rectum in either sex.

In the performance of the operation, after the protection of uninfected areas of the peritoneum and as far as possible of the edges of the wound, and the gentle wiping away of any pus that may be present, the location of the appendix is determined. The extraction of an unperforated but friable or even gangrenous appendix without rupturing it or allowing the slightest leakage of its contents is by far the most important step in the operation for acute appendicitis in its preperforative stage; if the appendix is firmly embedded in a retrocolic or pelvic position it is generally better to remove it by first dividing its base, invaginating the caecal stump, and then dividing the appendicular attachments from base to tip. For this procedure a free exposure is required. The intact removal of a gangrenous but unperforated appendix is followed by a recovery indistinguishable from that following a quiet appendicectomy, but rupture of such an appendix during removal is likely to have a serious sequel during the period of recovery, though the association is easily overlooked. In cases of pelvic peritonitis, particularly the type in which the pus is confined to the right posterior quarter of the pelvis by the terminal ileum and its mesentery, which together overlie the appendix and surrounding pus like a hood, it is important after removal of the pus and appendix to set the ileum free from the fibrinous adhesions that bind it to the post-pelvic wall. The condition of the ileum must also be carefully inspected; in the presence of a foul-smelling abscess around a gangrenous appendix the ileum may be intensely hyperaemic and its walls swollen and rigid and here and there covered by plates of necrotic lymph; bowel so affected is often contracted and flattened. Such a state apparently indicates an absolute incapacity of the bowel to transmit its contents, but rarely is it necessary to do more than insist on a rational plan of after-treatment. There is no need to short-circuit the bowel or to perform enterostomy, but for the next forty-eight hours or more the patient should receive practically the whole of his fluid requirements by means of the subcutaneous injection of saline solution—by mouth only a minimum quantity of water to allay thirst should be allowed. After forty-eight hours gradually increasing quantities of water may be allowed as the subcutaneous supply is withdrawn. In widespread peritonitis this plan of after-treatment is also of the greatest value.

In regard to drainage of the peritoneum, the tendency of the majority of surgeons to employ drainage less and less has been a feature of the surgery of acute appendicitis during the post-war period; and it would seem that the results on the whole amply justify this tendency. Space forbids me to say more than that dispensation with drainage should depend, not on boldness of spirit, but on good technique in the performance of the operation. This subject has been ably dealt with by St. Leger Brockman³ in a recent Hunterian Lecture.

After-Treatment in Cases of Pelvic and Diffuse Peritonitis.

(a) The amount of water allowed by mouth should be severely restricted during the first forty-eight hours because of the functional impairment of the lower small intestine; fluid must be given freely, but by rectal or subcutaneous routes—by the latter more particularly when the ileum is known to be badly damaged.

(b) Purgatives should not be given; a simple enema every day or on alternate days will suffice to empty the colon of its contents.

(c) Abdominal distension, gripping pains, and vomiting of intestinal contents on the third to fifth days are often due to failure to realize the importance of measures (a) and (b). In the presence of these symptoms stomach lavage should always be tried before contemplating operation. If operation proves to be necessary, then enterostomy, by a self-closing method above the highest inflamed loop of small intestine, is probably the best measure.

(d) Lastly, beware of the patient who has a persistent cough and a badly infected wound—as sometimes follows operation for a virulent and widespread peritonitis; if the sutures are seen to be cutting deep slits in the skin, then the wound edges should be firmly approximated by adhesive strapping (this is laced across the wound so that the plaster is not removed for dressings). Timely resort to this device will prevent a catastrophe.

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SOME NOTES ON DIAGNOSIS.*

BY

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WHEN invited to read a paper at this meeting I recognized an opportunity for discussing some rather unconventional views on diagnosis—views which in one form and another I have held since my student days, and which have by no means been dispelled by the great additions made to medical knowledge during the intervening years.

Diagnosis is our first object when seeing a fresh case. Our patients demand a diagnosis, and our teachers have ever impressed on us the prime importance of making one, while from time to time an eminent authority deplores the lack of diagnostic accuracy in some widely read journal in a way which would seem to imply that an accurate diagnosis is possible in every case. In hospital diagnosis is at its easiest. The cases are mostly advanced examples of well-marked disease, and the means and methods of exhaustive investigation are at hand. Yet difficult cases are seen; and, in my younger days, a fairly regular attendance in the *post-mortem* room revealed much that had not been anticipated—just as it so often does on the operating table—and I early learned that the most confident diagnostician is seldom the most reliable.

It is well to recognize our limitations as well as our advances. Unless a case is trivial or transient or obvious, we are at once in difficulties. The clinical pathologist, the radiographer, and the expert specialist often help us to a conclusion, but we are perhaps as often left in doubt. The same may be said of the general consultant, whose knowledge, experience, and authority, though of signal value in confirming an opinion already reached, or in bolstering up our ignorance, too often fail to carry us much further. Still, we may generally trust the man who is not afraid to say he does not know; when he thinks he does know he is generally right. But the pronouncements of the pundit who courts the reputation of being able to diagnose every case are necessarily unreliable; the fact being that, up to the present time, a diagnosis that is more than a guess is, at the stage of the disease when it would be most helpful, often quite impossible.

The Relative Value of Clinical Methods.

The aspect and demeanour of the patient are sometimes so characteristic that a diagnosis can be made at a glance. No one can mistake the tabetic, the Parkinsonian, or the fully developed case of Graves's disease. The history of the patient's complaints and sensations can hardly be too carefully elicited, for the key to the trouble

* An abridged version of a paper delivered before the Tunbridge Wells Division of the British Medical Association.

is often found here, while the family history and collateral evidence may be of equal value. Still, it is upon evidence obtained through the trained senses that one must depend in all but obvious cases. I propose to offer a few words on the kind of help which each of the senses provides, and in so doing it will serve my purpose best to begin with those which help us least and keep the most important to the end.

Taste hardly counts, though it is historically associated with the diagnosis of diabetes; and, while the olfactory sense may be conclusive, as in alcoholism, ozaena, acetonæmia, and *B. coli* abscess, its scope is strictly limited. Touch and hearing run a close race, though hearing wins easily if we include what is learned from the preliminary inquiry, and from the character of the patient's voice and utterance. In physical examination these two often help each other out, as in the timing of a thrill and a murmur, and in the feeling of resistance which accompanies the percussion note of apical consolidation and pleural effusion. But percussion generally depends on the sense of hearing alone, and the ability to detect slight differences of sound varies very much in different individuals. I never believed that it was possible to map out the stomach by percussion, and the advent of the x-ray meal has put it largely out of court. Most misleading is the percussion of adjacent gas-filled viscera. A few weeks ago I tapped with two coins over the epigastric and adjacent areas, while a colleague moved his stethoscope about, and pronounced the stomach to be greatly dilated. But a stomach tube failed to bring off any gas, and an hour or two later the coils of an enormously distended small intestine were found to fill this area, indeed the whole of the anterior segment of the abdomen. The only thing certain about percussion of adjacent hollow viscera is that the results are uncertain. To a lesser extent, for the possibilities are less egregious, I have always held as suspect the percussion line of the left border of the heart. Very different outlines are made by equally capable observers of the same case, and I have frequently found that the radiogram is smaller than the area mapped out by percussion.

Auscultation, of course, yields invaluable information as to both lungs and heart, but it is well to bear in mind what erroneous doctrines have been taught through many decades, not because the auscultation was at fault, but because the deductions were founded on theories which have proved to be erroneous. It need not have taken about a hundred years to find out that a systolic mitral murmur was often quite harmless. Possibly the most unequivocally useful information rendered by the stethoscope is connected with the recognition of the foetal heart beat.

Coming to the tactile sense alone, and using the term in its widest significance, so as to include recognition of tenderness, heat, cold, resistance, and fluctuation, we find an immense amount of information available. Texture, irregularity of surface, foreign bodies, crepitus; the examination of the pulse and the heart; aneurysm; fremitus and friction; and the exploration of the throat and pelvic organs, carry us far. And the reflexes are probably destined to carry us much further than is as yet generally recognized.

If I have run rapidly through some points connected with the diagnostic value of what we may almost call the minor senses, it has been mainly for the purpose of bringing into contrast the overwhelming importance of the sense of sight. It has been very largely in proportion to the degree in which different divisions of clinical knowledge have been brought within the range of vision that our powers of diagnosis have increased, and, fortunately, the range is being continually extended. The general glance, which, as already mentioned, may be diagnostic, is much more often suggestive. Pallor and cyanosis, obesity and cachexia, facial expression, lameness, and similar features, give us leads which are generally true. The distortions of surface produced by fractures, dislocations, tumours, and hernia are, of course, obvious. Beyond this the skin and the tongue and the throat can be seen unaided; sputa and excreta can be inspected, and urine tested. For the rest we must rely upon instruments, and while the use of almost

all instruments requires practice, the interpretation of the results requires more, and invariably lags behind. Probably in all cases interpretation will ever be liable to revision and extension. What should we know of pyrexia without the clinical thermometer? Yet while a glance at a temperature chart, along with its record of pulse and respiration, may be in itself diagnostic, who will say that we are at the end of the knowledge which this simple little instrument may bring? It is only quite recently that the characteristic charts of lymphadenoma and rat-bite fever have been recognized.

What would be our knowledge of the diseases of the eye and of the nervous system without the ophthalmoscope? And what should we know of the larynx if it could not be seen? What would our general knowledge of disease be without the revelations of the microscope, with its histological pathology, its blood counts, and the intricacies of bacteriology? Without transillumination a filled antrum is a sealed book, and the new knowledge of heart disease depends essentially on visible tracings.

The cavities of the body in the immediate vicinity of the orifices have for long been explored by means of specula, but the ingenious applications of electric light which provide us with cystoscopes and sigmoidoscopes, and with appliances by means of which the mucosa of the stomach and other remote internal surfaces are being brought into view, are matters of yesterday. The advent of x rays soon brought the accurate diagnosis of fractures and dislocations, and the localization of foreign bodies; the sockets of the teeth, the pituitary fossa, and the contents of the thorax were brought into the available field later; and while the exploration of the gastro-intestinal tract by means of barium meal and enema seem to have been long enough with us, the discovery of lipiodol and similar substances has recently added the bronchi, pulmonary cavities, the gall-bladder, the pelvis of the kidney, and the ramifications of sinus and fistula to the internal regions explorable by sight. The objection is sometimes raised that skiagrams may give misleading information. But this applies to all diagnostic methods, and skiagrams, like electro-cardiograms, may need expert elucidation. In obscure cases the experts themselves may be puzzled. None of the new methods has reached its zenith, and interpretation, as already stated, necessarily lags behind observation.

It is not without purpose that I have emphasized the paramount value of vision in diagnosis; it is not without purpose that I pass on to a few observations about the skin.

Disease Manifestations in the Skin.

Those parts of the body which are most open to easy and complete examination by sight and by touch ought to be those about which we know most, and in which changes due to treatment, general and local, should be most obvious. If such an area is also that most accessible to microscopic investigation, general and bacteriological, surely every facility exists for obtaining full knowledge of its physiology, its pathology, the diagnosis of its diseases, and their successful treatment. Yet if there is one part of the body which seems more puzzling than the rest, both as to diagnosis and as to treatment, I feel sure that a good many of us would think of the skin.

The experts who gather at the meetings of the dermatological societies often exhibit rarities and curiosities, and one may often notice the words "Case for diagnosis" on the agenda. Truly the skin is a humiliating structure. The limitations of our knowledge as to the essential nature of a lesion, and of its etiology, progress, and treatment, are here so obvious that it is not easy to deceive either ourselves or our patients; and many have said or thought that we know less about the skin than about almost any other system. Yet it may well be that, as should surely be the case, we do know more about the skin than about any other part; and that our ignorance of the invisible organs and systems may still be as profound as was our ignorance of the diseases of the fundus oculi before the days of the ophthalmoscope. There are but few skin diseases concerning which our knowledge may be said to be complete. One such is scabies; the cause is clear, the lesions are characteristic, and the treatment is known and is curative.

With the syphilides the case is different; the ultimate cause is known, but why should the lesions be so strangely varied? Why, again, should the ubiquitous staphylococcus have so pronounced an attraction for the skin of the adolescent? And if endocrine instability is evoked, why should it select its unfortunate victims so capriciously? Of many well-known skin diseases we really know nothing as to the essential nature or cause. Of individual lesions we know that vesicles and pustules arise from very different causes—local irritation and infection, certain drugs, small-pox, and so on; but, except in the case of burns, trauma, and local infection, we know nothing of the reason.

Transient anomalies seem, if possible, to be even more bewildering. How strange are the characteristic rashes of the exanthemata, each with its distribution and its period of incidence and decline; and perhaps still more curious are the pallors, flushings, and sweatings from emotional causes, each being part of an immediate response to purely psychic influences involving widespread nervous endocrine and circulatory adaptations in many parts of the body, but of which the skin reactions are alone in evidence. What effect does emotion have over other secretions? We know something of occasional renal response, and a good deal about tears. Emotion may cause profuse weeping or may dry up tears. What effect may it have on the gastric and biliary secretions? Doubtless profound effects, of which emotional vomiting, appetite juice, and the suggestive comments accompanying a carminative prescription are mere hints. What is the meaning of the muddy pallor with brownish wandering patches seen on the face in sea-sickness and in other conditions in which bile regurgitates? We see these things on the skin, but what is the liver—that immense organ which works in silence and in darkness—doing? All we can say is that we don't know. At a recent operation in which the liver was exposed I noticed little blisters which came and went and wandered, raising the capsule as they moved. What was going on within the recesses of the organ? We talk glibly about the liver being "out of order," but we do not know what is happening, and extreme cirrhosis, which had never even been suspected, may be discovered in the *post-mortem* room. One might dilate similarly upon other organs which, like the liver, work in silence and out of sight.

It is on the skin that we do see what is actually going on, and it is here that we may best gauge the extent of our knowledge and of our ignorance; and, surely, the balance is heavily weighted on the side of ignorance. And do not the grey, brown, black, and strawberry furs, and the curious wandering rashes of the tongue, and the little ulcers and haemorrhages on the gums and on the cornea, point in the same direction? Doubtless analogous pallors, flushings, swellings, furs, ephemeral ulcers, and desquamations occur with equal frequency in unseen areas, and accompany and perhaps account for symptoms for which we have daily to invent mythical reasons.

What Constitutes a Diagnosis?

In discussing any question it is well to know what we are talking about. Which of us, asked to define the word "diagnosis," could supply a definition acceptable to all? In the first volume of the *James Mackenzie Institute Reports* (1922) there is a paper on the results of a collective investigation which had "the primary object of determining in what proportion of the cases met with in general practice it is possible to arrive at a diagnosis," and the first difficulty encountered was that no satisfactory definition of the word could be found. After much debate the following was framed: "The recognition in the patient of a known disease from the symptoms which are characteristic of it." If we agree to include signs under the term symptoms, as Mackenzie always did, the definition will satisfy most of us. But the difficulty which was next experienced in separating what may be fairly called "known diseases" from among "the maze of symptoms and so-called diseases in which medicine is becoming lost" was a real one, and one which we shall all do well to bear in mind. Space forbids more than the briefest epitome of the paper. A classification wide enough to embrace all cases was evolved; the "known" (diagnosable) diseases were divided into five classes according to whether the

cause was known, surmisable, or frankly unknown, while end-results, such as the valvular lesions, and secondary diseases, such as cystitis, each received a separate compartment. Of the 794 consecutive cases investigated a "diagnosis" was made in only 28 per cent., while in 22 per cent. a partial or provisional diagnosis was allowed. But just half of the cases examined did not present the symptoms characteristic of a "known disease," and were consequently scheduled as "undiagnosable." Some of these cases were simple ephemeral complaints; some were isolated symptoms, such as unexplained headache, insomnia, tinnitus, and so on. Many were examples of groups of disjointed symptoms such as we often meet with and which bring discredit on the profession, because one doctor attaches one label and another another.

"We endeavoured," says the paper, "to divide the undiagnosable class into groups—for example, intestinal toxæmia, neurasthenia, dyspepsia, etc. It might be better not to employ such terms at all, as they are apt to give an unconscious bias in favour of one theory over another. The undiagnosable cases," it concludes, "are apt to cause despair to the general practitioner, but if they are viewed rightly they present him with an invaluable field of study which is really open to him alone."

The reason why the field is "open to the general practitioner and to him alone" is that he is the only man who has the opportunity of following up his cases from month to month and from year to year. By patient observation, record, and study Mackenzie differentiated the cardiac arrhythmias, which had at first caused him "despair," and real knowledge of heart disease dates from these researches. It was only while engaged in general practice that he was able to follow up his cases as he did. But he was alone in his feelings of despair; his contemporaries were satisfied with theories now known to be erroneous.

Turning to the mass of ailments which still are "undiagnosable," how many of us are there that recognize them as such? Are they really apt to afflict us with despair? Are we not prone to think that we hold the key to the bulk of these anomalies? Did we not, thirty years ago, ascribe countless ills to "uric acid"? Was there not a time—not long gone by—when the "up-to-date" practitioner had a vaccine for almost everything? That "blood pressure" should ever have been a popular "diagnosis" seems almost as strange as the queer idea that everything could be "Coué'd." These things may have had their day, but many of us become obsessed by the new or revived ideas as they come along, and perhaps it is the word "toxæmia" that is now on top of the wave. Toxæmia may be obvious, or probable, or problematical, but the relegation of its origin to the colon is often no more than a guess, even when faecal analysis seems to point that way.

The colon has had a long innings, but the early canonical axiom, "Cut it out and cast it from thee," has disappeared, while the more recent advice, based on high-transpontine authority, "Grease it and leave it alone," is disregarded. Sour milk had a look in some twenty years ago, and fizzled out. Possibly *acidophilus* may share a similar fate. To "change the flora" may prove as difficult as to "disinfect." But we are on firmer ground when the escape of organisms can be proved. Rowlands¹ has shown that the intestinal wall of rats fed on a full vitamin B diet was more than twice as thick and firmly knit as in the case of the controls; and in the few cases where he tried the treatment he found that urine which was teeming with *B. coli* "soon became sterile when the patient was placed upon a concentrated vitamin B diet." May not the well-nourished intestinal wall also prevent the absorption of toxins?

The vitamins have removed several obscure diseases from the region of bewildered speculation into the very front rank of diagnosable diseases—that is, into the small but ever-enlarging class in which the cause is definitely known. But the work by which these results have been secured has not come from the general practitioner. In endocrine disease also the best work has come from the laboratories and the schools; and, though the practitioner has by therapeutic experiment discovered various forms of sub-thyroidism, and done hopeful work with parathyroid and perhaps with other hormones, his blunderbuss work—generally the result of commercial suggestion—has been terrible. I sometimes wonder how many blunderbuss

preparations would produce any result at all if the thyroid element was cut out.

If therapeutic experiment along toxicæmic, endocrine, and similar lines can be called "investigation," we general practitioners are doing our duty nobly. But I see little of the patient laborious research to which Mackenzie devoted his life—these two kinds of inquiry lie poles asunder. Mackenzie's standard is too high for most of us; we lack the insight, even if we possessed the energy.

Is there not, however, some midway line along which we may all hope to do a little real, and possibly useful, work? There may be many; but anyone who forms the habit of taking short notes—if only of cases which are obscure or which possess some points of special interest—finds in the course of a few years that a fund of material has accumulated some of which will certainly throw light on his subsequent reading and experience. Much useful work which, among other results, helps to elucidate diagnostic problems, depends essentially on the existence of some such store. Further, if we keep our eyes open we all occasionally come across cases—or possibly cases in series—of obvious illness which, after careful investigation, are not found to conform to any known disease or even label. Such cases ought to be recorded. The work is seldom wasted, nor is it without reward.

A curious comment on the line of thought I have been pursuing is that, while a store of notes, such as I have referred to, has served me in good stead when impelled to deal with such matters as cardiac murmurs,² or the effects of opium on Cheyne-Stokes breathing and cardiac asthma,³ it has been the cases I have recorded as undiagnosable which have been noticed in quarters never anticipated, and have brought me unexpected recognition. A case of sudden death in a subject who had never shown cardiac symptoms, but which proved to have been due to the rupture of an aneurysm of the ventricle,⁴ has, I learn, been used by certain teachers in both hemispheres as an example of this (happily) undiagnosable condition; while a series of large spleens, recorded in the early nineties, presenting anomalous symptoms and occurring in three generations,⁵ is quoted as the initial link in the chain which led to the differentiation of acholuric jaundice,⁶ now a "known disease" with very characteristic features. These are examples of the fact that records which seem useless or lost may prove to be what some other observer is looking for, and that crumbs scattered on the waters may return to us after many days.

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VOLVULUS OF THE SIGMOID.*

BY

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VOLVULUS is a comparatively rare primary cause of intestinal obstruction in this country, though in some parts of Russia and Eastern Europe it forms approximately one-third of all the cases of intestinal obstruction, while many of the cases recorded in English literature concern Indian subjects.

Rokitansky described three forms of volvulus: (1) rotation of the bowel on its mesenteric axis; (2) rotation of the bowel on its longitudinal axis; and (3) the intertwining of two coils of intestine. By far the commonest of these, so far as the sigmoid colon is concerned, is the first, and it is to this variety that I shall confine my attention.

As far back as 1878 Leichtenstern clearly described the anatomical conditions necessary for the production of this form of volvulus. These are a long mesentery with a narrow attachment to the abdominal wall. Clearly the length of the mesentery is a developmental question, and the same is probably true of the narrowness of its attachment.

* A paper read to the Lancashire and Cheshire Branch of the British Medical Association.

Many writers have stressed the influence of chronic constipation in producing hypertrophy and dilatation of the sigmoid and in setting up chronic inflammatory changes in the meso-sigmoid leading to contraction of this structure. These changes are especially seen near the attachment of the meso-sigmoid to the abdominal wall, and lead to narrowing in this region. It is much more probable that the constipation so frequently present is the result of the anatomical peculiarities—namely, the omega loop arrangement of the sigmoid colon, which is looked upon by some authors as a mild form of idiopathic dilatation of the colon. The changes in the meso-sigmoid consist of fibrous bands on the peritoneal surface and not of fibrous changes in the structure itself, and probably result from plastic peritonitis set up by repeated attacks of partial strangulation. We shall see later on that these attacks often occur before the final acute attack takes place.

To sum up, the anatomical factors necessary are a long meso-sigmoid with a narrow attachment to the abdominal wall. Both of these may be congenital—that is, a condition of meso-sigmoid with, in some cases, an exaggeration of the normal V-shaped attachment of the mesentery. The narrowing of the base of the mesentery may be increased by repeated attacks of partial strangulation leading to the formation of fibrous bands on the base of the meso-sigmoid.

When these factors are present an attack of volvulus may be precipitated in various ways. Undoubtedly, constipation, by loading the bowel, may so increase its weight that the loop falls into the pelvis and the root of the mesentery becomes twisted. The resulting obstruction produces a distension of the bowel and the twist becomes increased. Finally, the circulation is obstructed and still further distension follows, and the picture becomes complete. In many cases the exciting cause is a powerful aperient taken to relieve the constipation. Sometimes an acute attack is produced by violent physical exertion, the movements of the abdominal wall pressing on a loaded and enlarged sigmoid and twisting it on its mesenteric axis.

It is a significant fact that volvulus is commoner in men than women owing to the stronger abdominal wall in this sex, together with the smaller capacity of the pelvis. In one of my patients the final acute attack which brought him to operation resulted from the exertion of mowing his lawn, followed by an aperient which was necessitated by several days' constipation.

Diet may have some effect, and it is said that a vegetarian diet, with its large residue, is liable to produce volvulus. Possibly this factor accounts to some extent for the geographical distribution of the condition.

CLINICAL SYMPTOMS.

The usual mental picture one forms of volvulus is that of an extremely acute intestinal obstruction with rapid and excessive distension of the abdomen and early onset of peritonitis. This is the description which is presented in Keen's *System of Surgery*, and also by Treves and Barnard, though both the latter writers comment on the fact that vomiting is an inconspicuous feature at the onset, and may be entirely absent. Both these writers state that visible peristalsis is very rarely seen.

While there can be no doubt that the final attack which leads to operation or death is of this type, it is becoming increasingly recognized that long before this takes place there may be symptoms of a more chronic and recurrent type. Fernström¹ discusses this aspect of the condition very thoroughly, and differentiates clearly between acute and chronic forms. In many of the acute cases an investigation of the previous history will reveal the fact that the patient has suffered from vague colicky abdominal pains from time to time, often associated with diarrhoea and offensive stools. The attacks are often terminated by the passage of a large quantity of flatus or a very large stool. In one of my patients, a man of 52 years, there was a history, dating back six months, of attacks of abdominal colic with constipation. These were usually brought to an end by a dose of salts, which produced a copious evacuation of motion and flatus.

The chronic symptoms, which are probably due to slight twists rectified spontaneously, therefore resolve themselves