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THE TREATMENT OF GLENARD'S DISEASE BY ABDOMINAL SECTION,

WITH SOME COMMENTS UPON INTESTINAL NEUROSES.

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THE curious abdominal disorder known as abdominal ptosis, viscerop-tosis, or Glénard's disease, has only attracted attention during the last ten years. Glénard's monographs appeared in 1885 and 1886.¹

A very excellent account of the condition is given in the *Traité Pratique des Maladies du Système Nerveux*, by Grasset and Rauzier.² The disease in question depends, in the main, upon a relaxation of the abdominal wall and of the supporting ligaments of the viscera; as a result of which the more conspicuous organs are found to have dropped to a lower level in the abdomen. The affection is usually met with in women. No definite causes have been assigned to it, although some attach an etiological importance to repeated pregnancies, to undue exertion, and to injuries.

It is stated that the right bend of the transverse colon is the first part to descend, the stomach is then drawn down, with the result that the pyloric opening is compressed, and the passage of food hindered. In due course the rest of the transverse colon descends, the jejuno-duodenal orifice is narrowed, and a further obstruction is offered to the passage of alimentary matters. The whole mass of the small intestine becomes prolapsed, the lower part of the abdomen is prominent and possibly pendulous, while the upper part is flattened. The liver and kidney become loose, and are described as "floating." Certain it is that the kidney becomes movable, and the liver is found to occupy an unduly low level.

The results of this general ptosis are manifold and distressing. There are, in the first place, certain asthenic symptoms, general depression, and general ill-health. The patient becomes an invalid, and is unfit for any exertion. She is only comfortable when recumbent. There is a sense of "weight" in the abdomen, and of a sickening "dragging." There is pain in the back, and a continued sense of weariness. Gastric symptoms are prominent; the most conspicuous are a sense of burning in the epigastric region, vomiting, pain, loss of appetite, distress after food, and more or less definite dyspepsia. The bowels are irregular; there may be diarrhoea, but more usually there is constipation. The movements of the bowels are attended with pain; aperients cause distress, and relief has to be sought by means of enemata. The stomach and intestines are very apt to be found dilated; pressure upon the bladder may be complained of. The symptoms usually accredited to movable kidney may be present. Colic is common, and may be now and then acute.

It is no matter of wonder that in so-called neurotic subjects these symptoms are intensified, and may be rendered extravagant and inexplicable; a condition is engendered which is considered by many to be fitly described by the term "neurasthenia." The affection at least is classified among the disorders of the nervous system.

One important feature remains to be noticed. The symptoms are more or less relieved by pressing upon the lower part of the abdomen with the two hands, or by the wearing of a supporting belt. Many patients are unable to move about until they have adjusted their supports or bands. The physical signs need not be dwelt upon. The kidneys are

found to be movable, the liver and stomach are prolapsed, and return more or less to their normal position when the patient is recumbent.

The following case will throw further light upon this condition: A young lady, about 22 years old, had been ill for six years with distressing but somewhat indefinite abdominal troubles. There was a history of tuberculosis in the family. The patient was highly cultivated and intelligent, and had never exhibited any symptoms which could be considered "nervous," nor did she in any way conform to the conception of a neurotic subject.

Her troubles began six years ago with an acute abdominal disturbance, which had been ascribed to an ulcer of the stomach or to ulceration in the small intestine. The account of the symptoms rather suggested a lesion in the latter situation. Previous to this illness, which assumed very serious proportions, the patient had had a fall, which may or may not have played some part in the etiology.

She was never well after the illness. The symptoms were in a general way in accord with those associated with Glénard's disease. There were evidences of continued catarrh of the bowel. Abdominal pain was almost constant. Vomiting was common, and the vomited matter was usually intensely acid. It sometimes appeared to be composed solely of a very acid gastric juice. There were considerable digestive disturbances and still greater troubles with the bowels. The patient became much enfeebled.

It soon was evident that all the abdominal troubles were increased by movement and by the erect position. The patient was most comfortable—and, indeed, only comfortable—when she was lying down. In addition to dragging pains and a burning sensation about the stomach, there were the phenomena usually associated with movable kidney. The right kidney was found to be "floating," and was fixed by suturing by a well-known Continental surgeon. The operation was performed three years ago, and was entirely successful. The kidney has ever since remained securely in place, and the symptoms to which it gave rise have entirely vanished.

The patient was continuously under treatment. Every form of diet was tried, and a series of prescriptions was accumulated which for number and variety could hardly be equalled. Many spas and health resorts in various parts of Europe were visited, but with no other than temporary or doubtful benefit. It was considered at one time that the symptoms had a nervous origin, and the patient submitted to the Weir-Mitchell treatment by absolute isolation, massage, and special feeding. These measures, although persevered with for the full time agreed upon, rather aggravated the patient's condition, and were certainly attended by no improvement. The course of the affection was complicated by attacks of influenza, and by other troubles which had no direct bearing upon the condition of ptosis.

The young lady had for some time been compelled to wear a belt, and was indeed unable to stand or move about without great discomfort, unless the belt was in position. When I saw her in October, 1894, the "belt" had been gradually increased in power and substance. It now consisted of a large shield-shaped metal plate to which two steel levers were attached, and by means of which the plate was made to bear pressure upon the lower part of the abdomen. It was a very formidable-looking apparatus, which had been gradually evolved by the patient to meet her need for increased support by pressure. When it was in position it caused the pulse in the lower limbs to be modified, and I could only condemn it as positively dangerous. Without this steel support the patient could not move about.

When examined in the recumbent position the area of

¹ *Lyon Méd.* 1885; *Soc. Méd. des Hôp.*, May 15th, 1886.
² 4th Edition, vol. ii, p. 404, Paris, 1894.

hepatic dulness was normal, but when the examination was made in the erect posture the liver was found to have descended some 2 inches. The stomach also and the whole mass of the intestines appeared to fall downwards. There was a certain amount of resistance with pain and tenderness over the region of the transverse part of the duodenum. The spleen shared in the general ptosis. The left kidney could not be felt. When in the erect position much complaint was made of pressure upon the bladder.

I ventured to advise that an incision be made into the abdomen, partly to ascertain the condition of the viscera and partly to fix the liver in position. This step did not seem to be premature, as the patient was in continual distress and was practically bedridden. She had, moreover, exhausted apparently every measure of medical treatment, and her weakness and intestinal troubles were increasing.

The operation was carried out in June, 1895. It was then the opinion of those who had seen most of the patient during her long illness that, unless some speedy improvement was effected, she could not live much longer.

I opened the abdomen in the median line a little below the xiphoid cartilage. The liver presented, and I found that I could drag it down to a quite remarkable degree. I enlarged the wound so as to obtain a good view of the stomach. It occupied a lower level than usual, but I found it impossible to drag it upwards, so as to cause it to protrude at the wound. I introduced the hand, and found that the great omentum was rolled up into a round and rigid cord, and was fixed to a mass of stony hardness in the upper part of the right iliac region.

I made a second incision directly over this mass, and found it to be made up of a collection of old tuberculous glands situated in the mesentery of the ileum. These glands were at once removed. Two of them were dry and caseous and presented calcareous foci; the third gland was wholly calcareous, and was, indeed, practically a stone. It was about the size of a peach stone. It was to these glands that the end of the omentum was adherent. The attachment was severed and numerous ligatures applied.

On returning to the median wound I found that the stomach could now be readily drawn up. I drew it through the wound for examination and could find nothing abnormal in it. The spleen was very mobile, and the transverse colon was entirely below the level of the umbilicus. About the descending part of the duodenum were some vague adhesions. Other slight adhesions implicated the coils of the ileum on the right side.

An examination of the cæcum and appendix and of the pelvic organs revealed nothing abnormal. I noticed nothing unusual in such coils of bowel as came under notice during the operation. I secured the liver in place and was able, now that the stomach was free, to raise it above its normal level. I made use of three stout silk sutures. These concerned the lines of the falciform ligament and the umbilical fissure. The most important stitch was passed through the liver near its edge and penetrated the round ligament, which afforded a most substantial holding. The other stitches involved the round ligament and the falciform ligament. Above the sutures were passed through the fibrous structures of the parietes by the side of the xiphoid cartilage. The two parietal wounds were closed. The operation occupied one hour and a-half.

The patient made an excellent recovery, which was without complication save that a little sutural abscess formed about one parietal stitch—a very trivial matter. The troubles depending upon the ptosis of the viscera vanished. There was no longer any pressure upon the bladder. The liver remained perfectly in place when the patient was erect. She could walk about without the old discomfort and without any artificial support. The gastric symptoms almost entirely disappeared, and, indeed, when the patient left England for South Africa some five months after the operation, complaint was only made of weakness and of some intestinal pain which may have depended upon adhesions, or, possibly, upon some narrowing of the bowel itself.

The course of events in this case was probably as follows: There was some tuberculous ulceration of the bowel, followed by tuberculous gland disease with adhesion of the omentum and gradual dragging upon the stomach and the transverse colon.

It would be interesting to know if in other examples of Glénard's disease there is any actual causative lesion as in the present instance. As any examination of the abdominal organs is usually made when the patient is recumbent, it is difficult to say if this ptosis of the viscera is common. Should the condition be sought for it may prove to be more common than is supposed. In the next place it would be desirable to ascertain if the mere dropping down of the viscera must of necessity lead to the train of symptoms described at the commencement of this article, or if it be not possible for a patient to exhibit a degree of ptosis and yet be the subject of no troublesome symptoms.

In the case of a movable kidney, for example, the patients who present this condition may be divided into three classes:

1. Those who have a movable kidney and who are unconscious of it, and who remain in perfect health.
2. Those in whom a neurotic tendency exists, and in whom the mobile viscus becomes the focus of a number of indefinite and bizarre nervous symptoms.
3. Those who experience real trouble from the floating organ, who have repeated attacks of pain due to torsion of the renal pedicle, or to stretching or bending of the same.

These attacks may be of slight degree and short duration, though even then they are to be distinguished from colic; they may be more severe and closely resemble the attacks due to renal calculus. Finally, they may be very acute and intense and be as alarming, at the onset, as an attack of intestinal strangulation. In addition to these occasional symptoms, there are constant dragging in the loin and that sense of local weakness and weariness which becomes a familiar story in the mouths of these patients. There is no doubt, moreover, but that the innervation of the colon may be disturbed by a movable kidney and the patient exhibit a state of contraction of the colon, alternating often with a state of relaxation and leading in general terms to "trouble in the bowels." Some obstinate cases of constipation or of constipation alternating with diarrhoea have been very definitely relieved after a movable kidney has been fixed by suturing.

Intestinal Neuroses.—With regard to the somewhat indefinite subject of "intestinal neuroses," viewed generally, some light may be thrown upon certain phases of these troubles by reference to the cases which come under the surgeon's notice. In some examples the trouble is without doubt purely nervous, as such cases as the two which follow may demonstrate:

Some years ago a young woman was admitted into the London Hospital with the assurance that she had swallowed a small plate of false teeth. She was in very great distress, complained of severe and well-localised pain in the stomach, and was very constantly sick. The clinical phenomena were of an exaggerated type, and it was assumed that under a suitable palliative treatment the symptoms would soon pass off. This, however, was not the result. The patient became worse. The pain did not abate; she could take no food; she continued to retch and vomit, and some five days after her admission I was sent for, as the patient was considered by the house-surgeon to be in a critical condition. I made an incision into the abdomen, and palpated all parts of the stomach. Nothing abnormal was discovered, and the wound was closed. The patient was at once relieved of her symptoms, and some two days after the operation the plate of teeth was discovered in a drawer in the patient's room. She had apparently forgotten that she had removed them, and, missing them when she woke in the morning, at once persuaded herself that she had swallowed them in her sleep.

Another case was that of a middle-aged woman who had come to the London Hospital from a great distance to have a "snake" removed from her abdomen. The patient appeared to be an intelligent woman, and was by no means of the neurotic type. She complained of constant wriggling movements in her abdomen. These movements had gradually increased in degree, and produced in her a great feeling of alarm, which she could not control. Sometimes she was rendered faint, and sometimes vomiting followed the movements. Her impression was that there was a snake in the bowel, but she was quite ready to accept the assurance that that was impossible. Such assurance, however, did not influence the movements. Food especially induced these un-

pleasant convulsions, and she ventured to think that the food, as soon as it reached the stomach, attracted the always vigilant and omnivorous snake. She had as a consequence reduced the amount of food she was taking to the smallest possible quantity, and was wasted in consequence.

It was apparent that the patient was one of those who seem to develop a consciousness of normal peristalsis in the bowel. The movements experienced by the patient were apparently normal peristaltic movements. They were excited by food and rendered turbulent by purgatives. An examination of the abdomen, even when "the snake" was moving, revealed nothing. The patient had tried every possible medical measure, and had submitted to a very considerable amount of advice and of ridicule. Still the movements remained, and her life was rendered a burden by them and her health damaged. It appeared justifiable to open the abdomen under such circumstances. This I did. Nothing abnormal was discovered, and the movements ceased.

The arrangement of the normal nervous system does not include a consciousness of normal peristaltic movements; why such a consciousness should be evolved, and why it should be obscured by merely opening the abdomen, it is hard to say.

Next to this variety of intestinal neurosis, which may perhaps be classified as purely neurotic, must be placed a series of examples in which there is an actual abnormal condition to be noticed. An illustration of this form is afforded by a patient who is at present in my wards at the London Hospital.

A thin, sallow, and cadaverous man of 46, who is by occupation a clerk, was admitted with this history. He was a voracious eater, and had been in the habit of bolting his food. Five or six years ago he became the subject of "chronic diarrhoea." He appears to have had colitis. He had abdominal pain, and passed much mucus and casts, but no blood. This trouble gradually subsided, although the bowels always remained loose. Some months ago the bowels became confined, and did not act for ten days; a definite accumulation formed which was, however, entirely removed by enemata. Since this time he has never been well. He has lost a stone in weight, and has become unfit for any work. His main troubles are an almost continual slight pain of the nature of colic, much rumbling in the belly, with a sense of something in movement and occasional attacks of vomiting. He has found no relief from either medicines or dieting. He would certainly be described as a nervous man.

The examination of the abdomen revealed a condition of some interest. The patient is thin, and the belly wall flaccid and well adapted for examination. The colicky pains complained of always begin on the left side, and may possibly radiate over the abdomen. They may, however, remain limited to the left side. Examination revealed the following condition. The sigmoid flexure can be recognised as an empty and contracted piece of bowel; and it may here be said that the sigmoid loop in this condition can, in a thin person, be identified without difficulty. As this empty coil is being examined it may often be felt to become enlarged; it swells out into a quite distinct ball, the size of a small orange. This ball seems to pass along the gut, to be preceded by a little dilation of the bowel, and to be followed by its contraction. When this curious change takes place the patient experiences the colicky pain complained of, and feels the "movements of wind," to which he frequently alludes. This change in the muscular condition of the sigmoid flexure I felt over and over again in this patient. The manipulation necessary for a deep examination seemed always to excite it. I could demonstrate it to the students around the bedside. When the bowel was still the pain ceased. The movements were not visible through the parietes. The dilated bowel was tympanitic. No other abnormal condition was discovered in the abdomen. I opened the belly in the left semilunar line, and discovered nothing. The sigmoid flexure had a scanty mesocolon. The abdomen was closed, and the symptoms vanished.

The symptoms will probably not reappear, because I operated upon a patient some two years ago with the same condition, and he has remained free of intestinal trouble, but has returned with a dilated stomach and some sickness.

This patient's case was practically identical with the one just described. He also was a man of middle age, gaunt and wan, following a sedentary employment, and of a very nervous temperament. He had had "disordered bowels" for some years, and when admitted into the hospital was suffering from exactly the same symptoms as the previous patient. There was an almost constant uneasy movement in the sigmoid flexure, and it was very seldom that one could not demonstrate the contraction and dilatation of the gut which has been just described.

I expected to find some stenosis of the colon, but an abdominal section revealed nothing abnormal. All these intestinal symptoms vanished after the operation, and, as already stated, the patient at the end of two years returned with what is probably some neurosis of his stomach.

It would appear that in these cases some actual lesion of the bowel—such as ulceration—leads to a continued disturbance of the nerve apparatus of the part. The muscular movement in the sigmoid flexure is comparable to the movements of the hand in athetosis. But for the fact that the sigmoid flexure does not seem to alter its position the condition might be called "athetosis of the colon." Both the above patients had been treated by arsenic and by sedatives, such as bromide of potassium, but no definite improvement followed.

There is, however, a stage beyond that met with in these two men. I had under my care at the London Hospital a sickly looking and melancholy woman of 60, who had had for years troubles in her bowel. She had almost constant griping pain, there was much rumbling of the intestines, and much trouble from flatulence. The taking of food added to her distress, and occasionally she had "bouts" of sickness. She was thin, and the abdominal wall was lax. An inspection extending over some fifteen minutes would reveal coils of bowel in actual movement. The movements were slow, and were attended with the long-existing colicky pain, but the main feature was that the coils were visible through the parietes, and that their movements could be watched.

I had always considered that when loops of intestine could be seen in movement there must be some mechanical obstruction of the gut below the visible coils, and had assumed that the obstruction was partial and long abiding, and had led to hypertrophy of the intestine above the stenosed place. The examination of the patient's rectum revealed nothing, and I felt some confidence in making the diagnosis of stenosis of the bowel low down, as the movements and symptoms pointed to the colon.

I cannot say that the patient had had actual attacks of obstruction, but she was worn out by the continued pain in her bowels, by the vomiting (which was never copious), and the inability to take sufficient food.

I opened the abdomen with the intention of dealing with a stricture of some kind. I found the colon a little hypertrophied, the sigmoid flexure of considerable length, and the colon generally conspicuous, but of stenosis there was no sign. There was no evidence of pressure upon the bowel, nor of bending nor kinking, nor were any adhesions to be discovered; the parts indeed were practically normal.

When the patient had recovered from the exploratory operation her colicky pains had vanished. She has not been heard of since she left the hospital.

This case I can only assume to be an advanced degree of the condition met with in the two male patients. The phenomena resemble those described by Kussmaul under the title of "intestinal inquietude." In some of these peristaltic movements were visible, but the evidence in the direction of the morbid anatomy is defective.

As bearing upon mysterious contractions and dilatations of the bowel, I might mention the varying condition of the colon when it is placed in front of a large renal tumour. Sometimes the bowel so placed is found to be contracted, and to be comparable to a solid cord. It is quite dull on percussion. Before the examination is completed it is possible to find the bowel dilated, and giving on percussion a tympanitic note. This may be repeated more than once.

Finally, there is the remarkable condition known as "ballooning of the rectum." This curious state of the bowel wall evidently depends upon some disturbance in its nerve apparatus. The term "ballooning" is entirely misleading,

inasmuch as the dilatation of the gut is not produced by distension with gas. The introduction of the finger, or even of a tube, does not cause it to disappear. It may vanish after continued manipulation, and, so far as I have noticed, disappears under an anæsthetic. It is vaguely associated with some trouble higher up in the alimentary canal, and usually in the colon. It is not uncommon in stricture of the colon, but is of little diagnostic value. I have found it very marked in a case of perityphlitis, and have met with it after abdominal operations involving the bowel. It is hardly a paralytic condition, and seems indeed to be rather allied with the states of the colon above described.

Finally, surgery affords many illustrations of that curious transmigration of pain which is common in many abdominal troubles, and which may play a part in intestinal neuroses. In acute trouble involving the small intestine, as for example strangulation in a hernia, the pain is very usually referred to near the root of the superior mesenteric plexus. The operation of nephrorrhaphy provides many examples of that strange renal pain which is experienced over the outer side of the hip and thigh, and in the heel or sole of the foot. In one case in which my ligatures passed possibly deeper than usual, and were drawn tighter than usual, the pain in the heel persisted for some months.

In a case of stone in the kidney the pain may be referred to the opposite and sound organ.

In perityphlitis the pain in certain stages, and especially in first attacks, may be referred to the opposite side. In one instance pressure upon a diseased appendix during a quiescent period produced pain in the corresponding point of the left iliac fossa.

Curious colicky pains in the bowel appear to vanish mysteriously after operations which have rid the patient of some disease of the gall bladder, kidney, or ovary.

Recently I was removing a piece of redundant gall bladder in a conscious patient upon whom I had performed cholecystotomy some weeks before. The patient felt no pain in the wound, but experienced intense pain in the back and in the "bowels" on the left side of the abdomen, below the level of the umbilicus. Pressure upon this part relieved the distress.

Reference may be made to the interesting experimental investigations of Bokai³ and Luderitz⁴ on peristaltic movements, and to papers by Stein⁵ and André⁶ on intestinal neuroses.

CLINICAL LECTURE

ON

RETENTION CYSTS OF COWPER'S GLANDS AS A CAUSE OF CHRONIC GLEET, SPASMODIC STRICTURE, ORGANIC STRICTURE, EXTRAVASATION OF URINE,

AND OF SO-CALLED "FALSE PASSAGES" IN THE BULBOUS URETHRA.¹

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I BELIEVE that in discovering retention cysts of Cowper's glands to be not infrequent in the adult, I have chanced upon an important clue to one of the causes of some of the more obscure and chronic affections of the deep urethra. It is true that several cases of cyst of Cowper's glands have been found in infants upon *post-mortem* examination, and that three probable cases of this disease in adults have been recorded in the literature, but it has not been shown that small-sized retention cysts do occur in the young adult, and may remain for months unsuspected as being the cause of chronic change and definite irritation of the urethral mucous membrane.

³ *Arch. für exper. Path. und Pharm.*, 1887.

⁴ *Virch. Archiv*, 1889.

⁵ *Wiener med. Wochen.*, 1892.

⁶ *Gaz. Hebdom.*, December 17th, 1892.

¹ Abstract of one of a series of demonstrations and clinical lectures upon *Obscure Diseases of the Urinary Organs*.

Since I have used the *aëro-urethroscop*² I have examined some hundreds of urethrae in the inflated condition, and have paid particular attention to the pathological history of the smaller glands (Littre's) which line that canal. I have watched, month by month, the changes which chronic gleet evoke in these minute mucous glands; how they become inflamed, secrete pus, and empty themselves through their ducts; how in other instances they become distended with mucus from blockage of their ducts, and burst into the urethra by the side of these outlets or slough out bodily and leave little pits in the wall covered by a hanging bridge of fibrous tissue; how in every case as the gland bed heals the mucous membrane around it becomes thickened and contracted, and transformed into a fine rib or semi-ring of dense fibrous material, thus forming those incomplete rings which are often wrongly diagnosed as large calibre strictures. The knowledge thus gained in watching the minuter glands has been of much service in tracing the changes in the larger mucous glands, the glands of Cowper.

Two years ago my attention was suddenly arrested during an *aëro-urethroscopy* by seeing an ovoid swelling on the floor of the bulbous urethra.³ The mucous membrane covering the elevation was gelatinous and very much congested. The appearance of the projection reminded me at once of a ranula, and, as I knew that the glands of Cowper emptied themselves in this position, I recognised that I had to deal with a retention cyst of one or other of these small glands. I dipped my fine urethral knife into the tumour, guiding it through the cannula under control of the eye, and evacuated about a drachm of mucus streaked with milky pus. The edges of the incision gaped at once, and on reinflation I saw that I had laid open a loculated cyst, which extended backwards beneath the membranous urethra. This patient was only sent to me for consultation, so that I lost sight of him; but I have been fortunate enough to meet with 9 other cases, and these have afforded me fair opportunities of studying the gross changes in the cysts, and of speculating upon the influence which the diseased glands appear to exert upon the superjacent mucous membrane.

THE GROSS CHANGES WHICH ENSUE UPON BLOCKAGE OF THE DUCT OF COWPER'S GLAND.

Cowper's glands are two pea-sized yellowish-white bodies which are situated between the layers of the triangular ligament and beneath the membranous urethra. (Fig. 1.) They

Fig. 1

are embedded in the lower fibres of the compressor urethrae muscle, close against the anterior layer of the triangular ligament. Their ducts pierce this ligament, course beneath the

² Author, *Medical Annual*, 1893, p. 66; also Author, *Modern Urinary Surgery*, p. 190.

³ I would remind my readers that when the urethra is blown out with air the bulbous part of the canal is seen to become spindle-shaped, the compressor urethrae muscle contracts, and usually prevents any air entering the membranous urethra. The bulbous urethra assumes, therefore, the appearance of an ovoid bag, the mouth of which has been tied up with a string. Any bulging of the floor can then be recognised at a glance.