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PART I.
ORIGINAL COMMUNICATIONS.

ART. I.—*Remarks on the Diagnosis of Abdominal Swellings, in Relation, chiefly, to Dilatation of the Colon.*—By HENRY KENNEDY, A.B., M.B., one of the Physicians to Sir P. Dun's, and the Cork-street Fever Hospitals.

SOME time before the death of the late Sir Benjamin Brodie he published a letter against quackery. It was marked by the strong common sense and great sagacity to be found in all his writings. Amongst other points he took occasion to advert to the necessity which exists for making our diagnosis of disease as accurate as possible; and, obvious, very obvious, as the point is, it may still be questioned whether it receives all that attention at our hands to which it is entitled. For myself, I believe that quackery is much more closely connected with legitimate medicine than many of us would at first be inclined to admit. I have very rarely known the public rush, in the first instance, to quackery, but only after legitimate medicine had failed; and I consider that every single step in advance, whether in diagnosis, or other direction, is, by so much, a lessening of the domain of quackery; and that the time may with reason be looked for when this domain will be reduced to a minimum.

As to its entire extinction this can scarcely be expected; for legitimate medicine cannot, I fear, be ever made so complete as to be placed amongst the exact sciences.

These thoughts have arisen from the nature of the subject to which I would at present ask attention, which relates mainly to the diagnosis of some forms of abdominal tumours—a subject of much interest, and no little difficulty. Of the three great cavities the diseases of none present more difficulty in diagnosis than those of the abdomen. Nor would I except from this statement even tumours, or other disease of the brain. The late Dr. Bright, in his masterly monograph on abdominal tumours, has alluded to these difficulties, and fairly, as I think, attributed them to the number of the organs in the cavity, as also to their possible displacement or mal-position.

But there are other difficulties besides these which must have been experienced by all. The contents of the hollow organs—air, feces, bile, or urine—frequently cause the diagnosis to be difficult. It might be supposed that the last of these, from the fixed position of the urinary bladder, could not lead to mistake; and yet, in the last volume of the *Transactions of the Pathological Society of London* will be found the details of a case by Dr. Murchison, in which a tumour of considerable size occupied the right inguinal region, pressing on the vessels so as to cause great œdema of the limb; and as the patient, a man of sixty-eight, seemed to be sinking, and the swelling, it was thought, might be an abscess, and so cause the danger, it was tapped, when a quantity of urine was drawn off. On *post mortem* examination, it was found that the tumour was caused by a large hernial sac, if I may so speak of it, which was formed on the side of the true bladder, with which organ the tumour had a distinct but narrow opening. It is to be observed that the patient had passed urine freely. There is a good drawing given of this remarkable case showing the site the tumour occupied. The difficulties, too, in making a diagnosis, may be much increased by the presence of ascites, as can be readily understood. Indeed I believe this to be the most frequent cause of any. And lastly, the state of the abdominal walls themselves may be, and often is, a source of difficulty. Though this may arise from œdema, which will not, of course, escape our notice, it more frequently arises from fatty deposit, which is generally easy enough to recognize. But it is not always so; and the following case is a good example in point.

In the course of last year a gentleman, of thirty-six years of age, applied to me, having become alarmed about himself on account of

some lumps, as he called them, which were growing in his abdomen. On examining him as he lay on his back, five or six very distinct tumours could be felt; they were of a uniform size, that of a middle-sized but flattened apple, and arranged from above downwards on either side of the umbilicus. At first I confess I was at a loss to account for their marked regularity, thinking I had some internal tumours to contend with. But closer examination showed me they were contained in the abdominal parietes; and the matter was finally set at rest by causing the gentleman to raise himself partially, when the action of the abdominal muscles, which in this individual were well developed, showed me at once that the tumours were between the skin and the muscles, and were, in truth, nothing but fat, which here had assumed the look of disease; owing, most likely, to the anatomical construction of the muscles, and their strong development. Though this case might appear to be a very common one, I cannot call to mind another like it; for, as a general rule, this is certainly not the way in which fat is deposited in the abdominal parietes.

Were it even possible, it is anything but my intention to enter generally into the subject of abdominal tumours. The question is one of great extent; and each organ requires—as has, indeed, been done in Dr. Bright's valuable memoir—a separate consideration for itself. So, on the present occasion, my remarks will be confined to a single affection giving rise to abdominal swelling, and one which seems to me not to have received all the attention it merits, even in the memoir to which allusion has been made. Before speaking of it, however, I would say a few words on a means of diagnosis which, when present, affords often a valuable aid; and I am not aware that any writer has noticed it: I mean the mobility of abdominal tumours as caused by the act of respiration. All are aware that some of these tumours can, by the pressure of the hand, be moved about. But it is the movement caused by inspiration of which I speak. The first occasion on which I noticed this occurred some years since, in the lifetime of the late Surgeon Neville. He had asked me to see a man who had a tumour in the epigastric region, of the nature of which he was doubtful. The question lay between a malignant tumour in the stomach and aneurism of the aorta. As the patient lay on his back, I thought I observed the tumour moving; and on closer scrutiny there could be no doubt of the matter, nor that it was due to the act of inspiration; and it at once struck me that it was a means by which a correct diagnosis might

be made; for it was obvious that if the tumour were an aneurism no movement of respiration could affect it; but if it were in the stomach this might occur. Acting on this, the diagnosis of a tumour of the stomach was made, and the result confirmed the truth of this idea, for, when the man died, some months later, malignant disease of the stomach was found. It is worth noting, that, between the time of my first seeing this man and his death, the tumour lessened materially; and this seemed due to the great and, possibly, rapid ulceration which had occurred in the diseased mass. Since this case came under my notice I have had many opportunities of confirming the point. It is quite obvious that its value is confined, in a measure, to the upper third of the abdomen, the depression of the diaphragm being its cause; and it can only affect an organ which admits of some mobility, as the stomach and transverse colon. But the opposite of this may also be of use to us to know; for a tumour not affected by the act of inspiration must then belong to one of the parts which are fixed, as, for instance, aneurism of the aorta. Since I observed this sign it has not fallen to my lot to meet a case of abscess of the liver coming forwards. But there is little doubt that in such a case, and with a swelling perceptible, the act of inspiration would cause the tumour to move; and that if adhesions formed between the tumour and the parietes this sign would then cease—a point of no little consequence to determine, as bearing directly on the treatment.* It may be observed, in passing, that the degree to which movement can be given to the parts close to the diaphragm varies considerably with the individual. Those who have the chest long, from above downwards, are able to depress the diaphragm, and necessarily the neighbouring organs, much more than others. This, indeed, is only what we should expect from the varying capacity of the chest in different persons. But it is curious to what an extent it exists; and in exact proportion with this will be the intensity of the sign to which attention is now called.

* Since writing this I have recalled to mind a case so remarkable as to be worth noting here. It will be found in the *Medical Times and Gazette* for 5th March, 1859, and was that of a man who presented a movable and markedly pulsating tumour in the epigastrium. This seems to have led to the idea that the tumour was literally a movable aneurism, and is so stated. On *post mortem* examination a mass of disease, which seems to have been strumous, was found in the liver; and to this, which had been observed to be moved by the act of inspiration, was communicated an impulse from an aneurism behind it; for this disease also existed in this remarkable case.

It is not to be understood, however, that the sign is entirely limited to the upper part of the abdomen. It may be well marked in the middle third, of which I have seen different examples. In one of these, a boy of fifteen, whom I had in Dun's Hospital for some time, a tumour, the size of a small apple, lay on the left side, between the floating ribs and the umbilicus, but nearer the latter. As the boy lay on his back, the tumour was quite visible, and could, of course, be felt; and, on making him inspire, it glided downwards one inch and a-half, and then rose again on expiration. Several gentlemen, including Drs. Law, Hudson, Moore, A. Smith, and Walshe, saw this boy; but, after the closest examination, no diagnosis approaching certainty was arrived at. The spleen was known to be enlarged; and it is a curious fact, and worth noting, that when the boy came into hospital the veins of the abdominal walls were much enlarged, but subsequently lessened so much as to be barely visible. My own impression of the nature of the tumour was, that it was a portion of indurated omentum, very probably the result of strumous disease. I had seen a similar case, some years before, with Dr. Cuthbertson, excepting that the tumour in this last case occupied the right side of the abdomen. Here it was only a *post mortem* examination cleared up the obscurity which hung over the diagnosis during life.

In reference to the distance to which the act of inspiration may affect abdominal tumours, I should say I saw one instance where a tumour which had reached the right iliac fossa was so moved. The case was one of malignant disease, which commenced above—I think in the liver—and grew with extraordinary rapidity till it reached low down on the right side. Here I could feel distinct movement when the patient made a deep inspiration. The explanation of this would, I think, be, that it was the movement of the liver above which was communicated downwards; and that, had the mass grown from below, the great probability is that no effort of the breathing would have affected it. At any rate, the fact that the respiration is capable of affecting movable tumours in the upper and middle thirds of the abdomen, and may even reach lower than this, is, I think, worthy of notice in reference to diseases of the ovaries, where it may be the means of arriving at a diagnosis as to the presence or not of adhesions, which, I should suppose, it would, at times, be of great consequence to know.

The affection to which I would now ask attention is dilatation of the colon—not the simple, and what may be called transient, state,

and which it may be supposed exists, more or less, in all cases of constipation, but that state of the bowel in which the dilatation is permanent, and from which it is very doubtful whether recovery ever takes place. The affection is obviously one analogous to what occurs in the other hollow viscera, as the heart, stomach, gall, and urinary bladders; and, though the natural and healthy functions of the colon might seem, as it were, to lead to dilatation, still this state is, in my experience, rare. Neither is its diagnosis as simple as might at first be thought. Indeed, mistakes, I know, may occur; other diseases may be mistaken for this one, or this state of the colon for others. An example or two may not be out of place:—

CASE I.—A girl, of nine years of age, was admitted into hospital, labouring under considerable swelling of the abdomen. On examination a number of masses could be felt through the parietes. They were very movable, conveyed the idea of being so soft as to take the impression of the fingers, and were shaped just like coils of intestine. The general impression was, that the case was one of dilated bowel, filled with feces. It should be stated that the child had considerable fever. She wasted rapidly; and, as she did so, the tumours became the more marked, and were even visible to the eye. On *post mortem* examination a very considerable portion of the intestine, chiefly the smaller one, was found infiltrated with a lardaceous material, evidently of a malignant nature. It was so placed as to thicken the walls of the intestine, in some parts to the extent of half an inch, and thus lessen its calibre. The material was softish, and retained the impression of the finger. The case is, as far as my experience goes, unique.

CASE II.—A maiden lady, middle aged, and of a spare habit of body, began to get large in the abdomen. It was so very gradual as to be almost imperceptible, and but little inconvenience was felt. There was a tendency to constipation, which, however, yielded to purgatives; but the size of the abdomen was not reduced after their action. The patient died, and the whole colon was found enormously dilated, and full of feces, the sigmoid flexure alone being four feet long and two feet in circumference. There was no stricture of any kind. This case has been given because the preparation has been preserved, and may be seen in our College of Surgeons; and, in the printed account of it, it is significantly added:—"The nature of the affection was not guessed at during life."

CASE III.—It is now more than six years since I was asked to see a lady on account of swelling of the abdomen. She was unmarried, upwards of fifty years of age, and of a spare habit of body. The lower extremities pitted on pressure, and she could walk but feebly. Though occasionally in the habit of taking aperient pills, there was no marked constipation. The swelling came on so imperceptibly that she could not say when it first began. It was quite obvious it increased at the slowest possible rate. Her appetite was fair; but she was, and had been, subject at times to fits of low spirits. When seen in bed the abdomen was found to be much swollen, and the swelling gave the idea of great solidity; and percussion confirmed this, for there was very little tympany. The veins over the surface were visible, but there was no marked enlargement, neither was there any fluctuation.

My first impression of this case was that the tumour was ovarian. But closer examination led me to doubt this; for I found that the mass was made up of five or six smaller masses; and that some of these could be moved in a very slight degree, not, however, from the act of inspiration, for I believe the abdomen was too full to allow of this, but by pressure from the hand. The greater masses, I should say, lay on either side of the umbilicus, the longer axis being from above downwards. It is sufficient to add of this case, that after I had seen it three or four times, and having also in mind the case already given, of which the specimen is in the College of Surgeons, I came to the conclusion that it was one of dilated colon, and subsequent events have, I think, confirmed this opinion. For though the lady is, and, I suspect now, will be a confirmed invalid, she has yet been materially improved by treatment. The abdomen was considerably reduced; and as it became so, the tumours divided, if I may so speak, so that what was a single one this month, became two the next. She was able to take considerable walks, and otherwise could enjoy life. I only now see her at long intervals, as she is able to manage herself. But at the present time I believe she is as well as her disease can allow of. The treatment adopted consisted mainly in courses of tonic purgative pills, given for twelve or fifteen days at a time, and then stopped. No medicine in the fluid form either agreed with her, or indeed was of any use. Circumstances prevented my carrying out all the measures which might prove of use in a case of this nature. Her greatest inconvenience, I should state, does not arise from her size, but from the weak state of her limbs, and the inability of walking. She is worse, too, at

certain times than at others; and then there is usually considerable pitting of the lower extremities. From first to last there has been nothing of what might be called constipation, but more a sluggish action of the bowels.^a

Within the last eight months another instance of this affection came under my notice. It occurred in a man of sixty-eight, who came to me under the idea that he was getting dropsical. An examination, however, satisfied me that the swelling, which was dull on percussion, and had no fluctuation, was due to dilated colon; and in about three weeks treatment relieved him, at least for the time. There is every probability, however, that the state will return—the more so when we recollect his time of life. The case, however, calls for no further notice here.

But all cases of this affection do not present themselves to our notice under the same uncomplicated form. Other states and diseases may be superadded; of which the following is a good example:—

CASE V.—A married woman, about thirty years of age, was sent into Sir Patrick Dun's Hospital, by Dr. Leney, of Bray. She laboured under an affection of the heart, and had slight œdema of the lower extremities. She thought herself dropsical, even in the body; and when seen in bed the abdomen was found to be very full; but neither Dr. Aquila Smith, who saw this case, nor I, could detect fluctuation. The examination, however, did detect a number of tumours floating about, as it were, in the abdomen; for they were very movable. None were larger than an orange, and they ranged from that down to the size of a walnut. On inquiry, the patient stated that for upwards of a year the bowels had been getting irregular, but that otherwise she did not feel out of health. When, however, the pitting about the ankles came on, joined to the disease of the heart, as known to Dr. Leney, it was then thought

^a After this paper was read, Dr. M. Eustace stated the following very apposite case:—A lady, aged twenty-eight, unmarried, got the habit of taking opium for pains in the abdomen. After some time the abdomen began to enlarge; and subsequently the lower limbs became weakened to such a degree that the patient was obliged to use crutches. In this state she came under the care of Dr. Eustace, who, from a very careful examination, concluded that no organic disease—for this had been suspected—existed in the abdomen, but that the swelling was due to fecal accumulation. Acting on this idea, she was treated by aperients, &c., whilst the use of opium was gradually discontinued. Under this plan the abdomen got smaller and smaller; and in the same proportion the lady recovered the use of her limbs, and was finally quite restored to health. She had been using the crutches for seven months.

advisable to send her in to Dublin. She was treated under the idea that the swelling of the abdomen was due to an enlarged and sacculated colon; the tumours being collections of feces, and there being also air in much greater quantity than is usual in this class of cases. At the end of three weeks all the movable tumours had disappeared, and the abdomen had lessened in proportion. Still there remained more of fulness in the hypogastric region than was natural; and though the patient denied all possibility of being pregnant—and this had been asked her on her first admission to hospital—it still turned out that she was so, as proved by the stethoscope. She ultimately left hospital as well as a woman in her state could, for the heart disease was unequivocal.

But cases may be very like the one just given, and yet not be identical. Shortly after this, my friend Dr. M'Clintock showed me a case where two or three tumours, the size of an apple, and very movable, could be felt in the abdomen. The patient was a woman of forty-two, and had been married but two years previously. The tumours lay on either side of the abdomen, and would be referred to the lower part of each kidney. Dr. M'Clintock's opinion was, that the tumours were malignant, whilst my own was that they were due to a sacculated colon; and under this idea she was sent to Sir P. Dun's Hospital, to see what a course of treatment might effect. She remained, however, but a fortnight, being anxious to return to her home. It is enough to say, that she did not get better whilst in hospital, and that, after many months, Dr. M'Clintock's opinion was proved to be correct, for she died of malignant disease, involving nearly the entire abdomen. Of this case I shall only add that, to the present time I am at a loss to say where the disease could have commenced. For I can scarcely imagine that the tumours first discovered were the ovaries. They seemed to me to be too movable, and at too great a distance from the usual sites of these bodies. This is, however, a matter for discussion.

There is one feature in the history of the affection of which I have been speaking which calls for notice here. As a general rule the bowels are sluggish, but not at all to the degree that we might expect. On the contrary, they may act regularly; and this is very likely, indeed, to lead us astray, and calls for the greater caution. So far, however, from there being constipation, or a tendency to it, there may be the very opposite, and diarrhea may exist. One such instance I have known; it was exhibited by the late Dr. Mayne before our Pathological Society. In this instance the diarrhea

terminated life, and the entire length of the colon was enormously distended. There was no ulceration, nor stricture of any kind.*

The diagnosis of dilated colon is not by any means the simple matter it might seem; and I believe it to be but common prudence to withhold our opinion till we are able to make successive observations on the case. Some, no doubt, are so very plain that the diagnosis may be made at once; but it may, I think, be stated with certainty, that the great majority are not so. In the case of the lady already given, she was seen, but once only, by the late Sir Henry Marsh, and he told me plainly that he could not make up his mind on the case; and in this I think he showed his great good sense.

On what, then, is the diagnosis to rest? I can only answer this in general terms. In the first place there are usually more tumours to be felt than is common where organic disease exists, whether malignant or otherwise. For though I have given a case where malignant disease, and in a comparatively early stage, existed in two distinct regions, it will still, I think, be allowed that this is exceptional, and therefore not generally to guide us. On the other hand, a single tumour may exist, and yet be due to nothing more than a portion of the colon dilated, and filled with feces. I have met no unequivocal case of this kind myself, but there are two—if I recollect right—in Bright's able monograph. Still, these are all exceptional cases. As regards the site of the tumours, in cases of dilated colon, something to assist our diagnosis may be gained. Thus they are commonly situated so as to occupy the middle third of the abdomen; and when they occupy, as they often do, both sides of the cavity, there are good grounds for supposing it is a dilated colon with which we have to deal.

But, probably, one of the most characteristic signs of this state is the way in which the tumours are impressed, as it were, with a

* Dr. Robert Smith has directed my attention to another case, exhibited by Professor Banks, and in which the termination was different from anything yet described. The patient, a man of fifty, was admitted labouring under sickness of stomach, and obstinate constipation. He had similar attacks before, but not so severe as the present one. There was very little constitutional disturbance at any time, and the abdomen, though much swollen and tympanitic, was not painful on pressure. More than two days elapsed before the constipation was overcome; but though the relief seemed to be complete at the moment, collapse and death followed on the third day from his admission. On examination, the disease was confined exclusively to the sigmoid flexure of the colon, which was of a greenish hue, and enormously distended—measuring two feet in circumference. There was no recent peritonitis, nor sign of stricture, or alteration in structure of any kind.

certain amount of movement—I mean in themselves. This can, of course, only be observed when we can make repeated observations at certain intervals. When this is done it will often be seen that the tumours have altered their position; slightly, it is true, but still so as to leave no doubt on the point. There is every reason to set this down to a very slow peristaltic action of the bowel. With it, too, will occasionally be observed a certain degree of lessening of some of the tumours; and, in the last place, it may occur that the character of the discharges from the bowels, as regards their size, may assist the diagnosis. It might be supposed that this would be of common occurrence. It is quite the reverse; for weeks and months may elapse and yet no characteristic discharges occur.

Such, then, are the signs which may lead us to a correct diagnosis:—The number of tumours—their site—their movements—their alteration in size—and, occasionally, the character of the evacuations.

Into the symptoms caused by this state of the colon it is not my intention to enter here, farther than to say they are, or may be, all those which arise from constipation in general, and, in addition, the increased size of the abdomen. The patients are very liable to attacks of pain like colic; and the two extremes of constipation and diarrhea, of which examples have been already given, may likewise occur. It seems scarcely necessary to add that our treatment must be pointless and ineffective if the state with which we have to contend be not thoroughly understood. Much caution, too, is required as regards our prognosis. With our present experience we have no grounds for supposing that the disease, if once fully formed, is curable. But that it can be alleviated is certain; and the extent to which this may succeed must depend on the circumstances of each case. The age of the patient, duration of the disease, length of intestine involved, temperament, &c., will all have an influence on the result. What, then, is the line of treatment to be adopted? Courses of purgative medicines, suited to the requirements of each case, given at stated intervals, and then omitted for the time, must be our sheet anchors. It is most important, too, that these medicines should be used with the least injury to the system at large. Hence the value of combining tonics with aperients; and of the former I have found none more efficacious than the preparations of the *nux vomica*. The common extract of this drug, in union with the compound colocynth pill, or the former with the mass lately introduced in the *British Pharmacopœia*—the

compound pill of colocynth with hyosciamus—make good combinations. Every one, however, will have his own favourites. The doses should not be large, but small, and frequently repeated—at least twice a day; and, except under some peculiar circumstances, pills are much superior to the fluid medicines. Injections, too, are at times useful; but it is very strange what little comparative effect they have.

The best directed medicines will, however, cause little good results unless they be combined with other means. The diet should be regulated so as to be the opposite of what is called a dry diet; and with this a system of frictions to the abdomen should be perseveringly carried out; and also bandaging, so as to give a steady support to the parts, should be enjoined. As a means of improving the tone of the muscular coat of the intestines electricity has been recommended, and in suitable cases would, no doubt, be of benefit; as would also all those measures which have a tendency to improve and invigorate the constitution. But these points are so obvious that they do not call for any further notice here.

ART. II.—*On the Induction of Premature Labour in the Sickness and Vomiting of Pregnancy, with Cases.* By S. L. HARDY, M.D., F.R.C.S.I., Physician, Accoucheur to, and Lecturer on Midwifery and Diseases of Women and Children, Steevens' Hospital; Physician to the Institution for Diseases of Children, Pitt-street, &c.

VOMITING, one of the most usual accompaniments of pregnancy, and considered so beneficial when within certain limits, occasionally becomes so violent, long-continued, and prostrating, as to endanger the safety of both mother and child.

Some cases of this nature yield to treatment—others, to a certain extent, are so far manageable as to enable the patient to complete her full term of utero-gestation—whilst a third class are so violent and uncontrollable as to require the induction of premature labour to rescue the unfortunate sufferer from a wretched and certain death.

Two cases lately came under my notice of very severe vomiting during pregnancy. One in private, the other in hospital practice. In the first premature labour was spontaneous; in the second it was induced. Both patients were saved.