

PHYSICAL DIAGNOSIS IN THE INSANE.

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NOWHERE perhaps is the importance of physical diagnosis more forcibly presented to our minds than in the insane. In them we have much more frequently than not it alone to depend upon, and the aid which the general practitioner and hospital physician obtain subjectively, together with the history, is usually wanting or at best unreliable. This of itself is a great disadvantage and we would be grateful were it the only one, for another which the asylum physician has frequently to encounter is the resistance of the patient to examination. Only those who have experienced it know what this really means. The maniacal shouts, turnings, and twistings, to say nothing of more determined efforts to oppose, are circumstances not calculated to facilitate examination. Yet such we have frequently to contend against, not only in diagnosing disease in this class of patient but in treating it. Catheterism, for example, has often to be performed and wounds dressed in patients assuming the most inconvenient postures. Another drawback, the insensitiveness of the insane, from whatever cause arising, to bodily pain and discomfort, is sufficiently well known. The numerous instances of retention of urine suspected by the practised eye from perhaps a change in posture or an alteration in walk; strangulated hernia uncomplained of and discovered on bathing or on attention being called to an attack of vomiting; enteric fever recognised when the eruption is out; and numerous other examples of serious bodily disease to which no attention has ever been directed by the patient himself, are experiences which we have all met with. Hence it is that apparently very trivial circumstances may often give warning and indicate to our eyes grave illness. Notwithstanding, however, the keenest observation we have every now and then disease presented to us in a stage which in sane patients would have been complained of at the outset and have thus afforded an earlier opportunity of diagnosis or at all events an approximate one. For the detection, then, of disease in the insane we have to rely almost entirely upon physical diagnosis. With these preliminary remarks I propose to mention and briefly describe a few cases by way of illustration, some of them interesting from their comparative rarity and all with one exception from the fact that the history and symptomatology were for practical purposes wanting.

Purulent meningitis.—The patient in this case was a woman, aged 21 years. Beyond the fact that she was known to have a mitral regurgitant murmur there was nothing in her past history having any bearing on her present ailment, of which the patient was quite incapable of giving any account. She had for a few days previously to Sept. 28th, 1898, not been taking her food as well as usual and as she looked generally ill on that morning she was at once sent to the hospital. Her temperature then was 103° F. She gave no indication that she could hear what was said to her, was semi-conscious, and could scarcely be roused. Her muscular system was in a state of extreme irritability and on being raised for purposes of examination she became very stiff and rigid, the head was drawn back, and the muscles of the back of the neck were thrown into a state of tetanic contraction. The pupils were dilated and reacted sluggishly, the gums were spongy and suppurated from decayed teeth, the tongue was dry and coated, and the urine was normal. Nothing was discoverable in the lungs or abdominal organs to account for her condition. Her temperature in the evening rose to 105° and since admission frequent retching and vomiting had supervened. On the 30th the temperature still continued high (104°); vomiting, irrespectively of the state of the stomach as to food, was persistent; the bowels were confined; there was retention of urine; the pupils were still dilated; the tongue was dry and foul and the lips and gums were covered with sordes. The muscular system was extremely irritable and the patient became rigid on any attempt at movement. The pulse was rapid but regular and the respirations were correspondingly increased. There was a dark trophic patch on each buttock. The patient was quite unconscious. On Oct. 1st the temperature was 104·8°; the specific gravity of the urine was 1030, it was albuminous, and contained a trace of sugar; the

head and eyes deviated to the right, the mouth was slightly twisted to the same side, and there was slight facial twitching. The right arm was rigidly flexed and when forcibly extended and let go at once resumed its abnormal position. The eyes were suffused. There were dark trophic areas and bullæ on the heels and tarsal prominences. On the 2nd the patient was comatose and rapidly sinking. She died on the evening of the 3rd, the temperature rising to 105·8° some hours before death.

Necropsy.—The dura mater was thickened and firmly adherent to the skull cap. The pia arachnoid over the convex and basal aspects of the brain was thickened and infiltrated with a greenish-yellow exudation of pus dipping down between the sulci and specially thick and abundant in the track of the larger fissures. The surface and lateral margins of the cerebellum were also invaded. Generally the brain substance was soft and cedematous and the vessels were congested. The grey matter was of a deeper colour than usual. The ventricles were dilated and filled with a dirty yellow fluid. There were hypertrophy of the left ventricle and thickening of the mitral valve. The kidneys were congested and the left one exhibited several recent infarcts.

Phlegmonous gastritis.—A man, aged 66 years, on Dec. 22nd, 1896, complained of nausea and vomiting. There was nothing, however, in his general appearance to indicate that there was anything very much the matter. His temperature was normal but the pulse was somewhat irregular. The next morning he rose but fell back and suddenly expired.

Necropsy.—The heart was found to be enlarged, weighing 14 ounces; the mitral valve was stenosed and the aortic valve was calcareous and incompetent. The stomach was greatly dilated, the mucous membrane was congested, and submucous hæmorrhages were present. The stomach wall was greatly thickened and on section large quantities of fluid pus exuded from the submucosa which was in a state of diffuse purulent infiltration.

Malignant endocarditis verrucosa.—No detailed description of this case which lasted about three weeks will be entered upon, but only a general survey of its progress from commencement to finish along with the factors contributing to its differential diagnosis. The only clear history obtainable was that some months previously the patient had a severe attack of rheumatic fever from which she slowly recovered, but with an impaired mental condition which gradually becoming more pronounced culminated before admission in an attack of acute delirium. Her condition on admission was one of semi-consciousness, extreme restlessness, incoherent muttering and screaming, loss of control over the sphincters, constant purposeless movements of the limbs and body, and extreme motor irritability. In fact, at first sight the case appeared to be one of severe and fatal chorea which is occasionally to be met with. That there were some grounds for the suspicion I think may not very strongly be objected to. The patient sometimes refused food, but this was not owing to inability to swallow, as the act of deglutition was normally performed even when the general muscular system was in a state of violent movement, the patient tossing her arms and legs about and rolling her head uneasily from side to side. These choreiform movements would suddenly cease and the patient drop into apparently a deep slumber from which, however, she was easily roused. The skin was hot and dry and later exhibited a petechial rash; the tongue and lips were parched and covered with sordes; the pupils were dilated and her general appearance indicated some acute febrile affection. The temperature was 103° F. on the evening of admission and continued more or less elevated throughout, though exhibiting considerable irregularity. The urine contained a large quantity of albumin and there was a loud mitral regurgitant murmur; considerable diarrhoea, slight distension of the abdomen, and gurgling were also present from the beginning. No rose spots or enlargement of the spleen were ever detected. Towards the end the heart's action became extremely rapid, the albumin increased, and coma supervened. Throughout muscular irritability was extreme and any attempt at sitting the patient up was accompanied by tetanic rigidity of the erector spinæ muscles. Passive motion of the extremities yielded the same state of matters.

Necropsy.—The heart weighed eight ounces. Large warty vegetations were present on the mitral segments and surrounding the mitral orifice. The left kidney and spleen were the seat of infarctions and both the kidneys were cirrhotic.

Intestinal obstruction.—The patient was a woman, aged 63 years. On admission on Sept. 4th, 1898, she complained of pain and uneasiness in the abdomen, nausea, and vomiting. The abdomen was somewhat distended and there was constipation. Her general condition did not, however, point to anything very serious. This description indicates the state of matters for about a fortnight—vomiting, constipation, pain in the lower region of the abdomen, and distension. About that time the pain and distension increased and vomiting became very frequent. The urine was scanty but otherwise normal, the heart's action was weak and irregular, and there was a localised pericardial murmur. Extreme thirst was a marked feature of the case. As the case progressed the distension further increased and somewhat irregularly, being greater in the right flank than elsewhere. In this region the percussion note was dull and palpation gave a sensation of fluid. Intestinal obstruction from volvulus or stricture of the large bowel was diagnosed, but owing to the cardiac complication and the patient's general weak condition operative interference was not considered advisable. Death occurred a couple of days afterwards.

Necropsy.—At the post-mortem examination the heart was found to be dilated and hypertrophied and the two layers of the pericardium were over the greater portion of its surface loosely adherent. The head of the pancreas was occupied by a cancerous tumour and the pyloric end of the stomach and transverse colon were matted together, the lumen of the latter being almost obliterated by the contraction of firm adhesions. The small intestine above the ileo-cæcal valve had become twisted on itself and the ascending colon was enormously distended with fluid fæces. The presumption is that the increased distension and exacerbation of vomiting which occurred a few days before death were occasioned by the twist in the small intestine.

Remarks.—The signs in the case of purulent meningitis were tolerably characteristic, and as suppuration due to carious teeth was the only source of infection discovered I have reason for concluding that the disease owed its origin to this. I have seen cases of purulent meningitis secondary to necrosis of bone, sloughing bed sore, and cellulitis of the orbit, but this is the first occasion on which suppuration due to carious teeth has come under my observation. Knowing the frequency of such and the filthy condition in which many patients keep their mouths it is well to bear this in mind, more especially in the case of epileptics, in seeking for the source of infection. The appearance on the third day of trophic lesions is also to be noted—a circumstance not infrequently observed in such cases. Another feature was the extension of the inflammation to the ventricles of the brain—a circumstance stated to be very rare and designated by the term "pyocephalus internus." It is possible that the sugar found in the urine may have been due to pressure on the fourth ventricle. The temperature was high throughout. Generally speaking, this is the case and it is not unusual to find it 106°, although in my experience it never attains the height met with in status epilepticus, and in the convulsive seizures of general paralysis. In other cases, however, it may not exceed 100°.

The case of phlegmonous gastritis is interesting from its extreme rarity. There were absolutely no symptoms except the attack of vomiting, and this of itself was nothing to go by. In fact the disease was only discovered post mortem. From the absence of symptoms and the condition of the viscera the case must be considered a chronic one, rare according to Ewald even in this rare disease. In view of the fact that 18 months previously the patient suffered from a somewhat prolonged attack of dysentery attended by extensive sloughing of the rectal mucous membrane, I might further particularise and consider the case as belonging to the metastatic form and having for its origin this condition of the lower bowel. The fact that after his recovery from dysentery he was subject to occasional attacks of vomiting and diarrhoea with motions of the colour of pus is perhaps not inconsistent with the suggestion of a slowly extending cellulitis of the stomach. In the description of the case of ulcerative endocarditis the diseases with which it is most often mistaken, typhoid fever, meningitis, and miliary tuberculosis, have been incidentally touched upon. The muttering delirium, fever, and extreme muscular rigidity of the spinal muscles on attempted movement present in this case are also characteristic of meningitis and miliary tuberculosis. It was only by frequent and careful examination of the lungs that I could exclude the latter. To eliminate the former, however, was not such an easy

task, and although I eventually committed myself to the diagnosis of ulcerative endocarditis the differentiation between the two was perhaps not very marked; in fact, the disease might have quite justifiably been diagnosed meningitis. It is known that ulcerative endocarditis may cause meningitis and be of itself attended by like cerebral phenomena without implication of the meninges. Both in the case of purulent meningitis and in the present one organic cardiac murmurs were audible and the general symptoms in both were pretty much the same. No degree of auscultatory precision, however, can distinguish between a murmur due to simple endocarditis and one dependent on the malignant form. The two cases which we are at present contrasting had in addition other features than the cardiac lesion in common. In both there were evidences of marked cerebral and vaso-motor disturbance, muscular irritability as shown by marked rigidity on attempted movement, and albuminuria and high temperature. In the one case, however, there was a history of a severe attack of rheumatic fever with the development of a pronounced cardiac lesion, but with no discoverable focus as in the other to give rise to meningitis. Then, again, the facial convulsions and spasmodic contracture of one arm with deviation of the head and eyes to the same side indicating a lesion within the cranium were present in the one case and not in the other. Further, persistent vomiting and especially the rapid development of trophic bedsores and bullæ were much more characteristic of meningitis than endocarditis. The condition of the bowels and bladder also afford a distinguishing clue, constipation and retention of urine being present in the former and abdominal distension and diarrhoea in the latter. The fundus of the eye was in neither case examined, but the discovery of retinal hæmorrhage or optic neuritis would not have materially assisted in differentiating, as these may occur in either. It is possible that the rigidity and choreiform movements in the present case may have been due to numerous minute emboli, but of this there was no proof. The case of intestinal obstruction is illustrative generally of the difficulties which attend the differentiation of the various causes of this condition. It is also interesting from the fact that the obstruction was due to an unsuspected cancer of the pancreas. Of this there was absolutely no evidence during life. The patient was well nourished and did not show the rapid emaciation and intense jaundice often met with in cancer of this organ and the abdominal distension prevented the feeling of any such thing as a tumour. Only a few months previously a case of cancer of this gland came under my observation characterised by intense jaundice and rapid emaciation. From the position of the tumour, however, a diagnosis of cancer of the duodenum was made. The latter, though a rare affection, has pretty much the same signs as cancer of the pancreas and a diagnosis between the two is almost impossible. The absence of sugar in the urine in the present case has been already mentioned and shows that its presence in affections of the pancreas is not invariable.

Leaving the side issue into which, perhaps, I have been drawn I propose to examine briefly the other feature of interest—intestinal obstruction. That due to volvulus of the sigmoid and stricture as being, perhaps, the most common will alone be considered and only in so far as actual cases have presented points of special interest and difficulty. The characteristic symptoms of acute obstruction as exemplified in a case of volvulus are sudden and severe pain, retching and vomiting, constipation, tympanites, and collapse. In the case of lunatics, however, pain may not be complained of, attention being first directed to the case by an attack of vomiting, and on examination the abdomen is found to be rigid and tympanitic. Such of themselves are, however, not always sufficient to warrant a diagnosis of intestinal obstruction, as they occur under other circumstances, but they are often all we have to go upon at first. In the case, however, of acute obstruction, as from volvulus, the rapid supervention and continuation of collapse, together with absolute constipation, though not conclusive, to a great extent narrows the diagnosis; still I have known perforation of a gastric ulcer to come under observation at so late a stage that from the abdominal distension and other symptoms the case closely simulated one of intestinal obstruction.

Taking, then, as a basis a series of cases which have come under my observation, let us see if it is possible from a close observation of the signs and symptoms to deduce any facts which will assist a differential diagnosis. Chronic intestinal

obstruction in the insane is often discovered so late that for all practical purposes the symptoms would seem to indicate the acute form. No history is obtainable and the earlier symptoms which among the sane would lead one to suspect chronic obstruction have never been complained of by the patient or noticed by the attendant. Vomiting, collapse, and most probably tympanites may, as already suggested, be the indications that first direct attention to the patient. Such is the case presented, what is it? For purposes of limitation I assume that the case is one of intestinal obstruction and the only other condition provocative of somewhat similar symptoms from which it will be attempted to distinguish it is perforation with accompanying peritonitis. In differentiating the various forms of obstruction too much stress must not be laid on the age of the patient, for although an age of 45 years and upwards is suspicious of volvulus or stricture it does not by any means exclude strangulation by bands, &c. With this reservation, then, and taking for granted that the obstruction of the small bowel has been excluded and that the patient's age, &c., suggest volvulus or stricture, I shall discuss only these two causes of obstruction. If the case is seen comparatively early—i.e., before the abdomen is excessively distended—the appearance of fulness extending from the left hypogastric and iliac regions towards the umbilicus, together with a feeling of increased resistance and tension communicated to the hand and a development of hyper-resonance in this locality point to volvulus. If upon these signs supervene an increase in the horizontal diameter of the abdomen and of the resonant area of the colon the diagnosis is rendered still more certain. The passage of a long tube or digital examination under chloroform will also tend to confirm. In what way, however, may volvulus be distinguished from stricture of the sigmoid? I am still presuming a case in which the patient is admitted to the hospital with vomiting, distension, collapse, and with no history. The passage of a long tube only reveals the fact that there is an obstruction in the lower portion of the gut and for differential purposes digital exploration is more valuable. If by means of it an irregular hard mass or enlarged glands are felt, the presence of malignant stricture, especially if the left leg and thigh are swollen and the veins are engorged, is practically confirmed. If, however, the stricture lie in the upper portion of the sigmoid, or beyond, digital examination or that by the tube affords little or no information and other features of the case have to be considered in order to arrive at any satisfactory conclusion. In volvulus, again, constipation is absolute from the first, but in stricture, especially malignant stricture, there is often diarrhoea and discharge of blood. Further, in stricture the contour of the colon is better defined and dulness and the feeling of a semi-fluid or mouldable mass limited to the region of the cæcum or extending thence in the line of the ascending colon is more significant of this form of obstruction than of volvulus, as in the latter these signs are to a considerable extent obscured by the production of gas in a voluminous sigmoid and the lesser likelihood of faecal accumulation owing to more persistent vomiting, &c. To the presence of the same may also be attributed the infrequency of coils and visible movement of the intestine in volvulus as compared with stricture. The excessive accumulation of faeces in stricture is owing to the prolonged previous constipation and to the fact that food is not vomited to the same extent as in volvulus, in which the accumulation if it exists is in the sigmoid and may when this is very moveable even be the cause of the volvulus. Under certain conditions the vomit in stricture may consist almost entirely of blood and that in large quantities. When such is the case stricture may be mistaken for perforation of a gastric ulcer or *vice versa*. In perforation there may or may not be hæmatemesis, but if owing to rapid collapse attention is drawn and the patient seen before distension of the abdomen from peritonitis has set in, we can, from what has already been said on the subject of stricture, affirm pretty confidently that it at least is not present. If, however, the patient comes under observation after peritonitis has set in the diagnosis is rendered more difficult and the probability of ascertaining the state of the colon by palpation is rendered almost impossible by the rigidity of the abdominal walls and great peritonitic distension. The age of the patient and the progress of the case will then be our chief guides. Gastric ulcer occurs at a much earlier age than stricture and when perforation occurs tends to a

more rapidly fatal issue. It is of course obvious that profuse hæmatemesis due to stricture of the colon can only occur when the obstruction is malignant and has become adherent to the wall of the stomach.

Lancaster.

ON "CHRONIC VENEREAL SORES," OR "ULCERATING GRANULOMA," WITH AN ILLUSTRATIVE CASE.

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THE following case affords a typical example of the disease described by myself in the *Indian Medical Gazette* of May, 1898, under the designation of "chronic venereal sores" and which appears to be identical with the affection prevalent in British Guiana and named by Dr. J. H. Conyers and Dr. C. W. Daniels¹ "groin ulceration." At the time that the above-mentioned article in the *Indian Medical Gazette* was written I had not had the advantage of seeing the description of the disease given by Dr. Conyers and Dr. Daniels and I was unaware that any notice of it had previously been published. The disease is fairly common in Southern India, and Surgeon-Colonel K. Macleod's article on the subject in the *Journal of Tropical Medicine* for February, 1899, points to the fact that it is also to be found in Northern India. The following are the notes of the case.

A Hindoo cigar-roller, aged 30 years, was admitted into the Madras General Hospital on Feb. 14th, 1899, suffering from sores in the groin and on the penis. The history given by the patient was as follows. Six months previously, four days after intercourse, a sore appeared on the glans penis. Ten days later a bubo formed in the right groin, burst, and discharged sanious fluid. Neither the ulcer on the penis nor the bubo ever healed but continued to spread slowly up to the date of admission into hospital. Slight local pain and irritation were experienced but the general health was not affected in any way. The following note was made of the condition of the patient on admission to hospital: "The patient is well developed, muscular, and in good health. Situated in the right groin is a sore measuring two and a half inches in length by one inch in width. There is no induration of the base of the sore which can be freely moved to and fro over the underlying structures. The surface, which is raised above the level of the surrounding skin in some places to the extent of a quarter of an inch or more, is irregular, of a dirty-pink colour, and somewhat waxy appearance. In consistence it is soft but firm and hairs are seen protruding here and there from the surface. It is almost entirely devoid of discharge. The edges are fairly regular and show no signs either of healing or breaking down. A small zone of epidermis is seen to mount, as it were, into the base of the mass of granulation tissue. Close to the existing sore is the scar of an old bubo. The prepuce is retracted and swollen. Situated on the under surface of the glans and body of the penis is a sore which differs in some respects from the one already described. The surface is smoother and not raised much above the level of the surrounding skin and scattered over it are numerous small white patches of newly formed epithelium. A slightly offensive odour is given off from the sores." On admission to hospital the following treatment was resorted to. The skin surrounding the sore in the groin was shaved and thoroughly purified by means of antiseptic lotions and boric acid dressings were applied. A month after admission an anæsthetic was administered and the whole of the affected skin in the groin together with some of the underlying fat and lymphatic glands were removed by means of the knife. The edges of the resulting wound were then brought together by sutures. It was considered advisable to postpone operation upon the penis until the wound in the groin was healed. Five days later, slight pain being complained of, the dressings were removed, when it was found that suppuration had taken place and two stitches were removed to give exit to the pus.

¹ British Guiana Medical Annual, 1896.