

organised, had become part of the anterior wall of the stomach, and then the seat of ulceration. The posterior part of the bladder was adherent to the sigmoid flexure and the rectum, so that there was no cul-de-sac between the bladder and the rectum. The liver was inseparably united to the diaphragm; its lower edge was above the margin of the thorax.

On separating the adhesions between two of the coils of the small intestine, situated in the right iliac fossa (where the man had felt severe pain during life), an opening was exposed, about the size of a sixpence, out of which faecal matter escaped. In the interior of the bowel, a large ulcer was found at the spot. The mucous membrane around was intensely red, and coated with dirty-yellowish lymph. The situation of the ulcer was in the ileum, about a yard and a half from the caecum. The peritoneum over the ulcer was destroyed to an extent greater than that of the opening itself, so that the muscular fibres were laid bare as well from the peritoneal as from the mucous coat. As we looked at it *in situ* we thought that the opening might have been made from the peritoneum into the bowel. This is rare, but we thought it possible. On opening the bowel, however, it was clearly not so, for here the mucous membrane was considerably destroyed; it was destroyed over an area larger than the opening, and larger even than the destruction of the peritoneum. Thus there had been ulceration of the outer side and ulceration of the inner side, but from the congestion of the mucous membrane around, we knew that the perforation had occurred, as it usually does, from within outwards. Several small ulcers were subsequently found in the intestine which had not perforated, but only destroyed the mucous membrane. Thus it was clear that the ulceration had begun in the bowel. It was the result of the mechanical congestion of the bowel. I told you that inflammation of the mucous membrane of the bowel resulted from the mechanical congestion, but that it was catarrhal inflammation. As a consequence of this, deeper-seated inflammation with ulceration may occur, and here we had it so deep that it had perforated the bowel. The mucous membrane around the ulcers was of a deep mahogany colour.

The capsule of the liver was thickened, and the liver itself was too granular, but not contracted; the edge was thick and the tissue broke down easily under pressure. Evidently, although it was not a healthy liver, there was no such disease of the liver-substance as to seriously impede the flow of blood through it. It was not an ordinary cirrhotic liver. The gall-bladder was covered with old lymph, and its coats were thickened; it contained four gall-stones, and scarcely any bile. The cystic duct was completely closed, and the hepatic duct and the branches of the portal vein and the common duct, all the parts in the hilus of the liver, were bound together by old adhesions and a large increase of the connective tissue. This was plainly the centre of the trouble. Here the lymph was the toughest and it was evidently the oldest. Here it was the most perfectly organised, but still greatly contracted, compressing the portal vein, compressing the cystic duct, compressing the ductus communis choledochus. All the branches of the portal vein had their coats greatly thickened, and in one branch—that to the right lobe—was an old clot firmly adherent.

There were four gall-stones in the gall-bladder, but we had good reason to believe that they were not all the gall-stones that had been there. I say, "not all," because their sides were flattened, and they were small gall-stones, and they did not seem to form the whole mass indicated by the peculiar flattening. We thought it probable, from the history of the man, from his having been several times in hospital with something wrong with his liver, that he had had gall-stones before, gall-stones passing down his cystic duct, or his ductus communis choledochus, which had led to inflammation, perhaps to ulceration, and to injury of the parts around. We know that such inflammation and ulceration do sometimes result from the passage of a gall-stone, and that now and then a gall-stone is thrown out by the ulceration into the parts around. We had no evidence here that ulceration had proceeded so far, but we had evidence of inflammation which had become chronic, and had ended in exudation of lymph, the man's habits and the climate he had lived in also perhaps assisting. Lymph thus exuded contracts, and

an impediment is established to the flow of blood through the portal vein. Thus, I think that the origin of the patient's trouble, the origin of the inflammation in this particular situation, where it had such a damaging effect upon his health, was the passage of a gall-stone. The liver itself was really scarcely diseased. It contained a good deal of bile from the damming back of bile into it, but the ducts were scarcely, if at all, dilated, and the cellular tissue between the lobules was a little increased. The obstruction to the flow of portal blood to the liver had, no doubt, diminished the formation of bile, and hence the absence of dilatation of the ducts in the liver. The weight of the liver was 3 lb. 7 oz.

The spleen was large and tough, the capsule thickened and adherent; it weighed 1 lb. 10 oz. This was no doubt the result of the mechanically produced congestion. The mesentery was greatly thickened, coated with lymph such as covered the omentum; this lymph was due probably to the same cause which had led to the thickening of the intestines, to the enlargement of the spleen,—i.e., the mechanical congestion, and the inflammation secondary thereto. The kidneys were enlarged; the right weighed 6 oz., the left 7 oz. The cortical substance was broad and a little speckled with red. Probably the mechanical congestion of the kidneys, assisted by the habits of the man, had given rise to inflammation, and in his cachectic condition to that low form of inflammatory action which is followed by the exudation of a great quantity of protein granules which quickly experience fatty degeneration.

We thus see, pretty clearly, considering how little history of the man we had, the course of his disease from its commencement to his death, and how the one disease, the one condition, followed mechanically upon the other; how the enlargement of his spleen, the vomiting of blood, the effusion into his peritoneum, the ulceration of his intestine, the perforation of his intestine, the distension of his belly, and the bursting of his umbilicus,—how all these were the mechanical results of the primary disease, the inflammation of the cellular tissue about the portal vein and the hepatic, cystic, and common bile ducts. The further result of this was changed nutrition, for he was very thin, and evidently his nutrition was interfered with by the damage to the abdominal tissues and organs, consequent on their mechanical congestion, and on the damming back of bile in the blood itself.

## Remarks

ON THE

## METHOD OF REMOVING GROWTHS, ETC., BY THE ELASTIC LIGATURE.

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I HAVE been asked by so many persons to state anything I may chance to know relative to this subject, that it seems necessary to comply briefly with the suggestion. I confess, however, I would much rather have waited for a larger personal experience than the observation of a few cases at Vienna and the management of one case here can afford me. But as in making experiments—and no doubt many of my brethren will be inclined to try the plan—it is certainly desirable to be first provided with a hint or two relative to the procedure, I see no objection to writing a few lines for the purpose.

Of the woman whose right breast I removed by means of the india-rubber ligature, I may say that she has made an excellent recovery. The progress of the case was unsatisfactory at first, owing to two circumstances. The first was an attack of erysipelas, prolonged rather than severe, which appeared two or three days after the application of the ligature, and which affected the right arm, shoulder, and most of the back.

Erysipelas has been very prevalent of late. Thus, I operated by lateral lithotomy this day fortnight on a man in the hospital, aged seventy-three years, who has been attacked by it in the perineum, buttock, and scrotum, but who is nevertheless doing admirably well, and will soon recover. So that I see no reason to suppose that any special liability to erysipelas arises from the peculiar nature of the operation on the breast.

The second unfavourable circumstance is that, being my first case, the elastic thread was not tied tightly enough, as I now think. In fact, I was afraid of snapping it at the time of the operation.

At the end of eight or ten days the ligature was evidently not embracing the still undivided portion so firmly as it ought to have done. I therefore made it tighter, which was very easily done by pulling out the loop from the wound as far as possible without much hurting the patient, and tying round it a fine ligature, so as to diminish, perhaps by one-half, the encircling noose. Certainly the mass was larger than I at first suspected it to be; and it is not to be overlooked that the whole breast was of course extirpated.

The cord on one side gave way about the second day; I therefore did not reapply it until after the other half of the breast had been divided; and on this occasion the process was more rapid, and no more erysipelas appeared as the result of the fresh pressure from the ligature on the skin. The whole mass was removed about ten or twelve days since, and nothing can be better than the appearance of the wound now, which began to diminish rapidly after the tumour came away.

I am satisfied that the fine india-rubber tube which I used, and which was the only material then attainable, was not sufficiently strong. I have therefore had some solid cord manufactured for me, which is much more powerful, and which I believe will divide the tissues in at least one-half the time which was occupied in this case by the tube. Its superiority is very manifest, for, being much stronger, it may be drawn at least twice as tight as the tube, and the consequence is that not only is the tension on the tumour greater, but the cord itself by the same process becomes finer, and therefore cuts more rapidly. In fact, there is no comparison between the two.

A small quantity of this cord could not be made, as no such product is required for any other purpose, and I have, therefore, deposited the whole with Messrs. Weiss and Son, from whom it can be obtained.

I also think it must be better, as Prof. Dittel now does, to apply the ligature to one-half of the breast at a time, the lower side, and not to use the second for the upper half until the first has separated. This was what actually did occur in my case, only the upper ligature, having remained some thirty-six hours or so before giving way, strangled the whole mass, and produced a far more offensive result than would have occurred had only one been at first employed.

No doubt the principal objection to the plan is the smell which necessarily arises from the sphacelated portion. This was much controlled by constant irrigation with carbolic acid and water, from a bottle placed above the level of the patient's head; a small current flowing through a tube, the lower extremity of which rested on the breast as the patient lay in bed, the part being isolated by means of a macintosh cloth, and the solution running into a receptacle below. All this was admirably arranged and attended to by the house-surgeon, Mr. Buckston Browne.

No doubt a breast is a rather severe test for the ligature, although I do not hesitate to anticipate a very much better result with a more powerful cord. For the removal of the testicle, and for division of fistula in ano, I think it will be found admirable.

The cord itself ought to be more accurately described. Its size before use is the following:

When applied it should be strained until it is a mere thread—say like this:

It would be very easy to devise a simple apparatus to tighten it subsequently, but it is so easy to accomplish this by pulling it out if loose, and tying a bit of fine ligature round the portion so drawn out, that it seems unnecessary to employ any other means. But with the new cord it is very probable that no such readjustment will be required.

Wimpole-street

## THE TEACHING AND PRACTICE OF PSYCHOLOGICAL MEDICINE AS INFLUENCED BY CLASSIFICATIONS OF INSANITY.

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ALL who know what services Dr. J. C. Bucknill has rendered to his department of practice would read with interest his "new classification of insanity" (THE LANCET, Nov. 15th, 1873). Nothing is confessedly more difficult than the satisfactory performance of such a work, and if he have failed at all, or generally, it will not be for want of a thorough knowledge founded on a large experience. And, in truth, the difficulties are greater even than those which are encountered in forming classifications of general diseases.

Although not a specialist like Dr. Bucknill, I have had to frame a classification of insanity, but with a view to teaching as well as to treatment. And this necessity of teaching has compelled me to adopt a method in fundamental respects different from that of the psychiatric physicians. A professor of any department must so teach that his students may be rendered both desirous and competent to advance it. As a department of the practice of medicine, psychological medicine includes a good deal more than insanity, since it extends over all departments of practice. As cultivators of this specialty, psychiatric physicians ought to advance it largely, being in exclusive charge of hospitals and houses for the reception and treatment of the insane—an advantage possessed by no other class of physicians. They have equally special advantages as the teachers of their own department, so that they almost monopolise that important duty also. And as the scientific development of psychological medicine must depend on the qualifications of those who may succeed their teachers in office, it is plain that a classification which aims merely at treatment, and excludes scientific methods, whether directly or indirectly, cannot and will not meet the requirements of the public and of the profession. Besides, it may be reasonably expected that psychological medicine shall be placed by those professing it on a scientific basis in all respects as broad as that of other special departments—as, for example, that of obstetric medicine. Are, then, the current classifications of insanity available to these objects? And if not, why not?—and how should they be constructed?

First, then, as to treatment. On inquiry, it is found, at the very outset, that under the terms "insanity" and "psychological medicine" are included only a portion of the disorders of the mind designated by Cullen and Sauvages *vesaniæ*—namely, those which are for the most part treated exclusively in asylums. Hence it happens that allied and transitional forms of mental disorder have no proper place in the current classifications, and consequently no fitting share in the discussions as to prevention and cure. But the transitional, at least, are the more important kinds to the general practitioner, since he has to treat that class of cases before they are so insane that they can be legally admitted into an asylum, and when most curable. On the other hand, a large proportion of cases detained therein are incurable. No one knows this fact better than Dr. Bucknill, and why it is so.

Again, in these psychological classifications the established principles of inductive logic are departed from in their construction; partly, perhaps, because of the difficulties inherent in the subject, but chiefly for other reasons not so admissible, which I will examine.

The logical principles of classification are well known. It is observed that a number of individual instances, or things, have characters, qualities, or properties such that they resemble each other as to these. On this ground they are classed together, and a name, or general term, is invented to denote the group. Then it is observed that a number of these individuals, thus similar, present differences in properties, characters, or qualities, from the others; and these are, in their turn, sub-classed together, and re-