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ON GASTROSTOMY:

Being a Paper Read in the Section of Surgery
at the Annual Meeting of the British Medical Association,
held in Glasgow, August, 1888.

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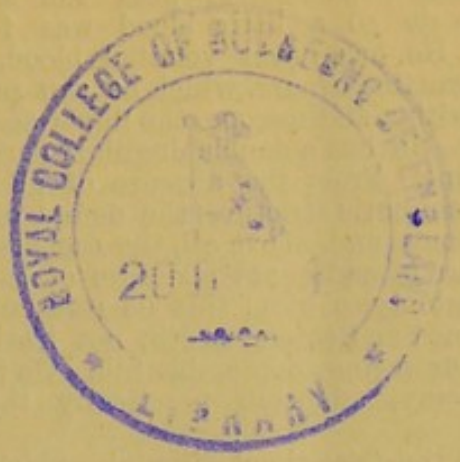

A CASE OF GASTROSTOMY, WITH EXHIBITION OF THE PATIENT ELEVEN MONTHS AFTER THE OPERATION: SUBSEQUENT HISTORY, DEATH ON 403RD DAY.

THE patient that I have the pleasure of bringing before the Section, is a man, J. L., aged 47, on whom I performed gastrostomy on September 9th, 1887, and nothing whatever has passed through his œsophagus since three days before then, that is since September 6th, although he has gained considerably over twenty pounds in weight. His history is as follows. He is a rivetter by trade. His father died, aged 42, of some brain disease, from which he suffered for only a few days. His mother died, aged 37, of phthisis. There are 6 brothers living, and 2 sisters; one sister died, aged 25, of phthisis. The patient has always enjoyed excellent health, never had any form of venereal disease, lived a sober life, and has been nearly always in constant work, till January 1887, when he was off work for five weeks, from a blow of a hammer, that fell on his right side while at work.

In April, 1887, when in what he considered excellent health, he found one day, at dinner, that a piece of meat stopped in his œsophagus, and that he was unable to swallow it, and in a few seconds he vomited; he found that he could finish his dinner only by chopping up his food very fine, and from this date till August, when I first saw him, his difficulty in swallowing had gradually increased, so that eventually he could only swallow liquids, and even those in very small quantities and very slowly. In August he consulted my friend Dr. Coatsworth Watson, who, recognising it as a stricture of the œsophagus, kindly sent him to the Sunderland Infirmary, under my care, with a view to having gastrostomy performed.

On admission he presented the appearance of a man in a state of great exhaustion and very much emaciated, with a well-marked malignant cachexia; he could with difficulty swallow a few drops of milk, and if he took as much as a teaspoonful at a time, he almost immediately vomited it. A full-sized bougie passed with ease as far as the lower third of the œsophagus, where its course was abruptly stopped;

beyond this it was impossible to pass the smallest size. In the attempt to do so a little blood was found on the end of the tube. He has never vomited blood, nor felt any pain where the obstruction occurs, which he can point to, and on carefully listening with a stethoscope, the fluids seem to stop at the point indicated. He has a double inguinal hernia; there are no scars in his groins. From the absence of all causes which might give rise to traumatic stricture, the denial of syphilis, the history of his symptoms, and, above all, the cachectic appearance, I regarded it as a case of malignant stricture of the œsophagus, and proposed gastrostomy to him; this he refused, and left the infirmary, but returned on September 8th, not having been able to swallow a single drop since September 6th. On the next day I performed gastrostomy, adopting practically the method of Howse.

Taking as a guide the triangle of Tillaux[1]—which has for sides the left costal cartilages; and the liver, and for base a line drawn transversely from the tip of the tenth rib, recognisable by the break in continuity and the fremitus that can be obtained owing to its ligamentous attachment to the ninth rib—I made a vertical incision down to the sheath of the rectus, about two inches long, having for its centre the centre of this triangle. I then incised the sheath of the rectus, and, dividing its fibres with the handle of a scalpel, opened the peritoneum, the hæmorrhage, which had been very trifling, having been arrested. On passing in two fingers, I at once seized the transverse colon, which was easily recognisable by its thin feel; this I gently pulled downwards, and, passing my fingers underneath the left lobe of the liver, swept it well over the vertebræ and readily found the stomach, which I easily brought through the wound, and passed a strong and moderately thick silk ligature for about half an inch through its serous and muscular coats, to hold it by while passing the sutures. By gently pulling the stomach as far as possible in the opposite direction to that in which I was passing a suture, I passed eight silk sutures in a circle through the serous and muscular coats of the stomach, and then through the whole thickness of the abdominal walls about an inch from the incision. The method I found most convenient for passing the sutures was using a silk suture eighteen inches long, with a rather thin, slightly curved needle about two inches long on each end. The suture was then passed through the coats of the stomach, and each needle was passed from within through the whole thickness of the abdominal wall. The sutures, on being passed, were secured with Kœberlé's forceps, and finally, when all the eight were passed, each was drawn tight and knotted, no bougie or other substance intervening. After this six others were passed, first through the coats of the stomach, and then through the peritoneum and skin, and then secured. The suture which was used to manipulate the stomach was knotted at the distance of a couple of inches and left on. The patient was supported by enemata for five days, when a narrow tenotome was passed through all the coats of the stomach, the patient not feeling the puncture, and through the small opening thus made a No. 7 gum-elastic catheter was passed, and on this the funnel of a binaural stethoscope was attached, and a couple of ounces of warm milk allowed to flow gently into the stomach, and next day all the sutures were removed, the wound having healed. He was fed in this manner with a small quantity of either milk or beef-tea every few hours, and in a few

[1] *Vide Traité d' Anatomie Topographique avec Applications à la Chirurgie.* Par P. Tillaux. Page 719. Quatrième édition. Paris: Asselin et Houzeau. 1884.

days a flexible india-rubber tube was introduced; and he wears this constantly, and changes it himself every six or seven weeks. There never was any rise of temperature; indeed, for the first few weeks he had a subnormal temperature. He soon began to put on flesh, and his appearance gradually improved in a marked degree. Unfortunately, he was not weighed till about a month after the operation, when he had put on a considerable amount of flesh, his weight then being 7 st. 8 lbs., and in a few months it reached 9 st., at which it has continued ever since with but slight variation. He now takes for breakfast a pint of milk and an egg; for luncheon, a pint of beef-tea; for dinner, one pint of milk and an egg; and for supper, a pint of beef-tea; and a couple of pints of milk during the night. He generally feeds himself sitting in a chair. The wound is always quite dry, but a little time ago he had an attack of bronchitis, and the coughing would sometimes force a little moisture round the tube shortly after a meal, but this has passed off. He does not complain of any dyspepsia or intestinal trouble. His bowels are regular. He cannot distinguish any taste of what passes into the stomach, but can readily detect its temperature, and experiences a pleasant sensation of warmth after taking alcohol, which he takes in a small quantity in his milk. After he has fed himself there is a copious flow of saliva, which passes into his œsophagus; and after a little time he has to vomit this, when he sometimes detects the taste of egg, beef-tea or milk so strongly that he fancies he has vomited some from his stomach, although he feels positive he has, after innumerable trials, never succeeded in swallowing a single drop since three days before the operation. No attempt to dilate the stricture has since been made.

As personally I derive considerable satisfaction from an excellent palate that Nature endowed me with, and which a fairly good education has further developed, I was anxious to restore to my patient similar pleasures, and tried to get him to take his food with his mouth first, and then force it through a tube passed through the opening, but at each attempt some of the food escaped into the œsophagus, which caused him so much distress that he did not care for the use of this artificial gullet. As he has lived so long and improved so much, and as his aspect has completely changed, I may be wrong in my original diagnosis, but, taking all things into consideration, I fear my original diagnosis is correct.

It is quite unnecessary to take up the time of the Section in discussing the various modifications of the operation adopted by different surgeons, or to enumerate the indications for gastrostomy when all this has been done so well by Bryant, Howse, Greig Smith, Gross,[2] Zesas,[3] and many others; but I venture to hope, as the operation is still regarded with distrust by many, that it may be worth while exhibiting the patient at this large meeting to demonstrate how life can be prolonged in considerable comfort by an operation which is exceedingly simple and easy if performed by any surgeon accustomed to abdominal work, and the mortality of which, if done before the vital powers are too far taxed, with proper care and strict antiseptic precautions, should be very trifling. I may state that this patient was operated on with the strictest antiseptic precautions, including the use of carbolic spray, which I use in all my abdominal sections.

And as I have had the honour of reading the first of the several

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[2] *Trans. Amer. Surg. Association*, vol. ii, p. 363.

[3] Die Gastrostomie und ihre Resultate, *Archiv f. Klin. Chir.*, 1835 Band xxxii, Heft i.

papers in the Surgical Section, I am anxious to repeat in this University of the city of Glasgow what has been said over and over again in every quarter of the civilised globe, that much as we undoubtedly owe to Scotch surgeons for the invention and development of some of the most brilliant and successful operations of modern surgery, when, if I but say *circumspice*, the names of Buchanan, of Macewen, and of a host of others, will at once occur to you; it is to two Scotchmen pre-eminently that modern operative surgery owes its great development, to Simpson, whose introduction of chloroform renders it possible to get patients to submit to the immense number of operations that are now undertaken; and to Lister, whose introduction of antiseptic methods renders it possible to undertake, with an easy conscience, operations which formerly would have been little, if at all, short of criminal acts. That a few great surgeons, whose ability and intelligence I freely admit, do not agree with the latter statement modern surgical literature still attests; with these, I fear, it is useless to argue; I can only regret the fact as I regret the fact that the services of a homœopath were sought for by Lord Beaconsfield, a great statesman, whose ability and whose intelligence were never seriously questioned.

Dr. Murphy then demonstrated on a model the method he regarded as the best for passing the sutures, while the patient fed himself.

P.S.—I am now (October, 1888) in a position to complete the history of this case. The patient continued well and free from pain till the beginning of October, when he became much troubled with a cough and lost flesh. He was confined to bed about a week, when, on October 15th, during a fit of coughing, he vomited about a quart of bright red blood and suddenly died, having lived 402 days after the operation.

On *post-mortem* examination, the opening to the stomach was perfectly healthy, and would admit a No. 16 English catheter; round this, for about an inch all round, the stomach and abdominal wall were firmly adherent. The œsophagus was completely obliterated. At the portion where the obstruction was detected its place was taken by a ragged mass for the distance of an inch and a half; engaging in it all the surrounding tissues, and adherent to the aorta, through which at its uppermost portion it had ulcerated, forming an opening that would admit a No. 8 catheter, and through which the fatal hæmorrhage had occurred. The mass was somewhat longer and not so wide as a large walnut. The lung in the vicinity was deeply congested and slightly infiltrated; above and below the œsophagus was perfectly healthy, as was the aorta, which was in no way dilated. All the other organs, including the stomach, were healthy. A portion of the growth was submitted to my friend Dr. Squance for microscopical examination, and he has kindly reported as follows:

Microscopical Appearances.—The growth is a simple carcinoma, resembling in places scirrhus. In parts the alveoli vary considerably in size and contain masses of epithelial cells, in some instances undergoing fatty degeneration. In another portion the stroma was firm and fibrous, with very few cells in the alveoli, traces of which were surely left in places. On the extreme border of the piece of tissue examined, the stroma was richly celled, and consisted of rapidly growing fibrous tissue, the cancer cells being arranged in "nests," as in ordinary epithelioma; some of the cells being cornified.