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A CASE OF OESOPHAGOTOMY.

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The rarity of this operation in Army surgery must be my only excuse for bringing it to notice in the pages of this Journal.

Corporal W. was admitted at the Royal Infirmary, Dublin, at 5 p.m., on December 4th, 1905, having swallowed his dental plate in his sleep some sixteen hours previously. Ineffluctual attempts having been made to extract it with a probang, &c., at the Station Hospital, he was transferred to the Royal Infirmary. On admission his temperature was 100° F. There was a good deal of swelling of the lower part of the neck immediately above the manubrium sterni, most marked on the left side. Though the body could not be felt, there was a decided sense of fulness and resistance at this point, and pressure over the swelling caused him severe pain. Protective rigidity of all the neck muscles was noted. Patient was quite positive that the plate was stuck just above the sternum. There was no vomiting, and small sips of fluid could be swallowed, though doing so caused considerable pain.

Patient was prepared for operation, and two ounces of a saturated solution of magnesium sulphate ordered, to be taken in as large sips as he could conveniently swallow. He was given a little milk during the night, December 5th. This morning an excellent skiagraph taken by Lieutenant and Quartermaster F. Bruce showed the plate lying a little to the left of the median line with its lower border on a level with the manubrium sterni. Considering the nature of the body, the fact that attempts at extraction had already been made, that some fever existed, and that the body lay so low down that it could not be reached by forceps from the mouth, it was thought better to operate at once than to renew attempts at extraction which might only result in driving it to an inaccessible portion of the oesophagus. Under chloroform, an incision three and a half inches long was made about an inch internal to the anterior border of the left sterno-mastoid and more or less parallel with it. The incision was made a little further in than usual to avoid an oblique left anterior jugular vein which ran exactly in the usual line of incision. The deep fascia was opened over the sterno-hyoid and sterno-thyroid muscles which were retracted inwards, the sterno-mastoid and the unopened carotid sheath being drawn outwards. The anterior belly of the omo-hyoid was demonstrated above, but was not divided, though to gain a free exposure it was found necessary to divide transversely some of the outer fibres of the left
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Sterno-hyoid muscle. The recurrent laryngeal nerve was clearly seen, and the oesophagus demonstrated by exposure of its muscle fibre; within it could be felt the tooth plate. The inferior thyroid vessels could be seen in the floor of the wound. The larynx was carefully tilted and pulled over to the left side, and the oesophagus carefully freed by the finger for a short distance. An incision about an inch long was then made longitudinally over the upper pole of the plate, well behind the recurrent laryngeal nerve, and the edges of the slit grasped and held apart by Kocher's forceps. An artery forceps was then clipped on the upper pole of the plate, and it was extracted by gently rotating it round the centre of its arc so that its shortest diameter only engaged the slit. By this manoeuvre the long incision recommended by some authorities was rendered unnecessary. The oesophageal wound was then closed by a continuous suture of fine chromic gut passing through the entire thickness of its wall, and this was in turn inverted by a suture of similar material passed Lembert-wise through its fascial and the outer layers of its muscular coat. The external wound was closed above and below by continuous sutures of silkworm gut, but about an inch of its centre was left unsutured, through which a drain of iodoform gauze was passed down to the wound in the oesophagus. On inspection, the plate was found to measure two and a half inches in length and to have one tooth upon it.

After operation, patient was only allowed teaspoonfuls of boiled water, with the double object of allaying thirst and keeping the inner aspect of the wound clean. Frequent gargling with weak cyllin lotion was carried out, and the neck rendered immobile by sandbags. In the evening the temperature was 99° F. Respiration 16. Pulse 84. No pain. At 9.15 p.m. a boiled No. 12 soft rubber catheter was passed down the oesophagus, and he was given eight ounces of milk poured into the attached funnel; before withdrawing the tube any milk remaining in it was washed away by filling the funnel with a little boiled water, and allowing it to run into the stomach. On withdrawal of the tube the mouth was again gargled with the cyllin lotion and a little of it swallowed to remove the last traces of milk from the gullet. This routine was adopted on each occasion when he was fed by the tube. A saline rectal injection of one pint was given later, and during the night morphia, $\frac{1}{2}$ grain, on account of restlessness.

December 6th.—Temperature in the morning 99.4° F. Very comfortable, little or no pain. Sixteen ounces of milk given by tube. Dressed. Some redness of edges of wound, and on removal of the gauze drain it had a foul odour. Wound most carefully cleansed with peroxide, and replugged with iodoform gauze soaked in weak cyllin lotion. Evening temperature 100.8° F. At 5.30 in the afternoon, sixteen ounces of milk were given by the tube, and at 11.30 another, ten ounces.

December 7th.—Suppuration now established and gauze plug soaked with stinking pus. Saturated solution of magnesium sulphate given the
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previous evening produced a good effect. In the morning ten ounces of milk were given by the tube, and in the evening a pint. Morning temperature 100.8°F., evening 100.2°F. Very comfortable. Little or no pain. Frequent cyllin gargles.

December 8th.—Dressed twice. Comfortable, though wound flooded with stinking pus. Cyllin lotion and peroxide used for cleansing wound. A pint of milk given morning and evening by tube. Frequent cyllin gargles.

December 9th.—Slight leaking of oesophageal slit with appearance of a small quantity of milk in wound after feeding. Small quantities of cyllin lotion swallowed to clean depths of wound. Temperature, morning 99.4°F., evening 99.8°F. Dressed after morning and evening feed. Allowed to pass tube himself, which he does most skilfully.

December 10th.—Temperature dropping. Dressed thrice daily. Pus very foul. Skin sutures removed as a point of pus in every track. No pain. Sleeps well.

December 11th.—Still improving. Dressed four times in twenty-four hours.

December 12th.—Morning temperature reached normal. Four dressings in twenty-four hours. A good deal of fluid on swallowing appears in wound.

December 13th.—Dressed six times in twenty-four hours. Pus less foul. Ends of incision healing rapidly.

December 16th.—Morning temperature subnormal, evening normal. Dressed six times. A small slough, probably of the edge of the oesophageal incision, with embedded chromic gut suture came away. Very little fluid now comes through the wound on swallowing.

December 17th.—Factor of wound has disappeared. Fistula closed to-day.

December 18th.—Allowed a little thin arrowroot by mouth to-day. Tube feeding discontinued. Dressed four times.

December 19th.—Dressed twice. Wound rapidly closing.

December 20th.—Dressed once only. Sarcely any discharge. Allowed up two hours.

December 23rd.—Up all day. Allowed oatmeal porridge.

December 25th.—Minced chicken diet.

December 30th.—Discharged to-day. Wound healed.

Comments.

It is usually recommended that in these cases only rectal feeding should be followed for two days, and that only at the end of that period should tube feeding be commenced. In this case tube feeding was commenced on the evening of operation, for the following reasons: We have in the oesophagus, unlike the bowel, no muscular tube covered by a membrane possessing adhesive properties of so pronounced a character,
that if partially immobilised for a short time in contact with similar tissue, firm union will take place between the two opposed surfaces.

The healing of an oesophageal wound is of a much slower description. Like an intestinal wound, an oesophageal one is septic from its making; unlike it, its exterior is not bathed in a fluid of such markedly phagocytic character as the peritoneal exudation. For these reasons the wound will in all probability become septic by infection from its depths, no matter what precautions may be taken in making the external wound, in which case healing must take place by secondary union of granulations and be necessarily slow. Why weaken the patient by denying him anything but rectal nourishment for the first couple of days? To be effective, the rest of the oesophagus should extend over a much longer period. Should a septic union take place a certain amount of union would take place in that time, but such an event is unlikely. The passage of a tube is supposed to disturb the parts and favour leakage from the oesophagus. The smooth rounded end of a soft rubber catheter cannot hitch at any point of a well-sutured wound, cannot from its small size distend the wounded tube unduly. The resistance which is felt when passing a tube through such a wounded portion is quite unlike the "grip" of a stricture. It is much more probable that in such a case the loss of the "carrying on" power of the oesophagus, due to its muscular contraction, is lost when the neighbourhood of the wounded portion is reached, and that the tube then only moves forward on pressure from above. The difference between the ease of its motion under the two conditions gives rise to a false impression of tightness. On these grounds I would submit that rectal feeding for some days in these cases is probably a useless precaution and productive of little good. The factor of the discharge from the wound in the case here recorded is scarcely an argument against early tube feeding, as it was due to a small slough of the edges of the wound, probably caused by strangulation of its edges by the double continuous suture employed, when the part became swollen by septic inflammation. Had ordinary catgut been used for suturing the oesophagus, its rapid softening under septic influences would have prevented such an occurrence taking place.

NASAL OBSTRUCTION IN ADULTS.

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There are few affections of the nasal passages during the course of which the symptoms of obstruction are not complained of by the sufferer: whether the stenosis be due to hypertrophy of the turbinate bones, nasal polypi, irregular, abnormal, or deflected septa, or kindred causes, the symptoms are very similar.