ON THE METHOD OF OPERATING FOR UMBILICAL HERNIA, WHETHER FOR RADICAL CURE OR WHEN STRANGULATION HAS OCCURRED.

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In almost all the surgical handbooks of the day in which the subject is mentioned, the following, in brief outline, is the operation recommended in uncomplicated cases of umbilical hernia, whether for radical cure or when strangulation has occurred. The sac is opened by a vertical incision over the middle of the tumour; the omentum is turned aside, and the intestine—after such adhesions as confine it within the sac have been separated, and, when strangulation is present, the stricture has been divided—is returned into the abdominal cavity; the omentum is detached from the interior of the sac wherever it is adherent, and, when thus completely freed, is tied in strands; these strands are divided on the distal side of the ligatures; the stump thus formed is returned into the abdomen; the sac is cut away after its neck has been closed; the abdominal opening itself is securely closed by deep sutures, and the edges of the external wound are adjusted.

This proceeding may be altered in two particulars, with the result that it occupies less time, is more easy, and, as experience shows, safer for the patient. The first point concerns the treatment of the sac; the second the management of adherent omentum. 1. As to the sac: As a first step, this, as I believe, was originally suggested by Mr. Treves, is stripped entirely of all the surrounding tissues, and completely isolated down to the opening through which it leaves the abdomen—that is to the level of the linea alba. The isolation of the sac is thus effected. A curved incision starting from the middle line above is carried over the right side of the swelling to the middle line below, and a similar incision is made on the left side, the two together forming an elliptical wound. These two incisions are so planned that they include the skin which covers all the front of the swelling, only enough being left to allow of the closure of the wound, without tension, in the middle line, when the hernia shall have been reduced and the sac removed. Next, the whole thickness of the subcutaneous fat is separated on either side from the outer surface of the sac, including its neck. This is easily carried out by a sweep of the finger and a few touches of the knife.

The operator now has the hernial sac and its contents clearly defined and under control. The sac is opened by an incision in the middle line long enough to afford free access to its interior. The omentum—any part of which, not in the neighbourhood of the neck of the sac, may be freely divided, provided it has been first either tied or securely clamped above and below—is unfolded and the intestine exposed. This, when such adhesions as tether it within the sac have been divided, is returned. In cases in which extensive and firm adhesions have formed between the intestine and the omentum or the sac, it is safer and quicker to cut through these structures at a little distance from the gut, so that portions are left adherent to it, than to persist in dissecting them off. The intestine having been returned into the abdominal cavity the omentum is taken in hand.

In dealing with this structure the usual method is to detach it at what may be termed its periphery from the sac wherever it is adherent. This, if the hernia is large and the adhesions are extensive, is a tedious proceeding which occupies considerable time. The following is a more expeditious method. The operator makes his way to the omentum where its neck emerges from the abdomen. This neck or stem he defines and isolates so that he can pass his finger completely around it. If it is adherent to the ring the adhesions must be separated. The stem is now tied in strands in the usual way, divided beyond the ligatures and returned into the abdomen. There will now remain the sac containing, perhaps, a large mass of more or less adherent omentum. The sac is cut away by dividing its neck at the level of the ring. Its edges are brought together with sutures, and the peritoneal cavity is thus closed. The ring itself is next obliterated by strong buried sutures and the external wound is closed.

The dangers formerly attending operations on large umbilical hernia which had become strangulated is well known. The mortality in these cases only a few years ago was between 60 and 80 per cent. When, however, it became the practice to close the opening into the abdomen, and so shut off the peritoneal cavity from the external wound, and when, furthermore, the aseptic method was established, the mortality was very largely reduced. The death-rate, however, still reached a high figure, and was due, to some extent at least, to the character of the operation which was performed. As the hernia was often very large, and as the adhesions present were extensive and firm—the intestine, the omentum, and the sac being laced together into a confused mass—a long and tedious dissection had to be performed which occupied so extended a period that the patient, already exhausted, passed into a condition of collapse. It was, therefore, very desirable that the operation should be modified so that it could be carried out more expeditiously. To this end (1) the method of isolating the sac, as above described, was an important contribution. While the sac is as yet unopened it forms a well-defined and more or less firm tumour, from which the surrounding structures can be stripped off—just as in a femoral hernia—with the greatest facility, and very much more quickly than when the sac has been emptied and rendered flaccid. Moreover, to have the sac defined and isolated makes it much more easy to deal with its contents. (2) The clamping and free division of such portions of omentum as cover over and obscure the intestine saves much time; while (3) to deal at once with the omentum, where its neck emerges from the abdominal ring, instead of first separating, one after another, the adhesions which connect it at numerous points with the fundus of the sac, curtails the length of the operation by probably one half. In the last three years I have performed the operation I have endeavoured to describe nine times—four times for radical cure, and five times for the relief of strangulation. All the patients recovered. Two patients, in whom strangulation had existed for three and four days respectively were in a grave condition for the first twenty-four hours. The remainder bore the operation well, and gave no anxiety from the first.

MYXCEDEMA TREATED WITH "COLLOID" MATERIAL.

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THE following case was treated with "colloid" material from the thyroid gland prepared according to Dr. R. Hutchison's formula.¹ The material used was Messrs. Oppenheimer's preparation put up in "palatinoid" form, each palatinoid being equivalent to 5 grs. of the fresh gland.

J. F., aged 54, on January 7th, 1898, when first seen by me, complained of weakness, lassitude, pains in the limbs, uncontrollable sleepiness, and loss of memory. There was nothing special in his family history with the exception that his mother had died, aged 49, of what had been termed "dropsy." His only illness had been due to a carbuncle in 1896, followed by an abscess in the left side of the neck. There was no history of venereal disease. His habits had always been temperate. As a young man he was thin. He had noticed a gradual increase in body weight during the previous six years with a definite increase of 21 lbs. during the last two years. During the latter period of time also his hair, which had been abundant, had gradually thinned and almost completely fallen off, together with his eyebrows and eyelashes, and to a certain extent his beard and moustache; the hair that remained had turned almost white, brittle, and void of lustre. From a tenor his voice had changed during the previous eighteen months, and had become very rough and deep in tone. His speech had become very slow and laboured. His face and body generally had become puffy and swollen, his lips thickened, and the facial lines marked by translucent folds. Lachrymation, and particularly salivation, had become profuse, and the saliva was with difficulty swallowed. His hands and feet had become enlarged. His collar had to be increased from size 15 to 17, and his boots from size 7 to 9. During these two years he had suffered from increasing pains in the hips and back, great lassitude and weakness, with feelings that his legs were a "dead weight," and especially had he great difficulty in mounting stairs. Five years previously he could walk as many as five miles with comfort, but recently he had to rest very often even during a short walk of about half a mile. His general movements had become laboured and slow, and he had found great difficulty in performing fine movements with his fingers, and stated that his "fingers" had become "all thumbs." The symptoms on examination were characteristic of myxœdema; the principal were as follows:—The skin was almost like lizard skin, dry and fissured, with complete absence of sweating; his face was waxy-looking, with a pink blush on each cheek. The hair was scanty, brittle, dry, and white on the head, absent from the

EXPLANATION OF PLATE.

Fig. 1.—Taken January, 1898. Before commencing treatment.

Fig. 2.—Taken January, 1898. Before commencing treatment.

Fig. 3.—Taken June, 1898. After treatment. The hair is an entirely new crop, and brown in colour. Compare with Fig. 2.

Fig. 4.—Taken June, 1898. After treatment, to show the new growth of hair.

Fig. 5.—Taken June, 1898. After treatment. Compare with Fig. 1.

Fig. 6.—Taken January, 1898. To show the cracked skin and the swelling of the hands. Circumference, wrist, 7 inches; hand, 8½ inches.

Fig. 7.—Taken June, 1898. The skin is soft and the fingers more tapered. Owing to the position—that is, turned under—of the hand, the improvement looks less than it really is. Circumference, wrist, 6½ inches; hand, 7½ inches.

eyelids and partially from the brows, pubes, and axillæ; the beard and moustache were stubbly. The circulation was slow, the pulse ranging from 54 to 60; the hands and feet much affected by cold, the fingers turning quite white. The temperature ranged from 96.5° to 97° F. Tactile sensibility was slow, and the expression was vacant and fixed. He stated that he never laughed because his face was "too stiff"; talkativeness was marked, with a monotonous voice and the use of many qualifying phrases. His memory was poor for recent events. There was extreme sleepiness, so that, although he slept twelve hours at night, he fell asleep at any time if unoccupied or left alone; he said that he dreamed constantly during sleep. The digestive system was normal with the exception of almost complete anorexia. The lips, tongue, and fauces were greatly thickened, and salivation was extreme. The urine had a specific gravity of 1020; it was acid, and free from albumen and sugar; 300 gr. of urea were excreted in twenty-four hours. Owing to the myxedema, no reliable examination of the thyroid could be made.

On January 25th, 1898, he commenced treatment with "colloid" material, taking one palatinoid at night. The dose was gradually increased to four in twenty-four hours by February 22nd, it was then reduced to two, and by June to one in twenty-four hours. No symptoms of "thyroidism" arose during the treatment. The result was a rapid disappearance of all symptoms and a return to normal health. The hair during the treatment fell off; the absolute baldness was followed by a thick crop of brown hair, which required cutting on three occasions before June. The pulse and temperature returned to normal; the skin also, with normal perspiration;

the mental inactivity disappeared; inflection and modulation of the voice returned, all the movements became easy, and walking was no trouble. The body weight gradually sank. Sleepiness disappeared, and the appetite increased almost to voracity. So distressing had been his condition before treatment that he was unable to attend to his daily business in anything like a satisfactory manner, but since treatment he has followed his occupation with increasing pleasure and good results. At the present time (May, 1899) he remains in excellent condition, taking a daily dose of one or two palatinoids of the "colloid" material. His appearance has so altered that he has repeatedly to explain to his customers that he is the same person they knew before, and that the stout old gentleman with the white hair was not his father, who had, as they believed, died of "dropsy."

From March until June I did not see him, and no record was made. The table on p. 1462 is necessarily incomplete, as it was found inconvenient to collect the urine during every twenty-four hours; the patient attending business during the whole period of treatment. It is interesting to note that with loss of body weight there was an increase in the output of urea up to a certain point, then, although the body weight went on decreasing, the urea diminished in quantity, and at this period the maximum dose of "colloid" was being

administered. At present the weight remains at 12 st. 7 lbs., and the patient is taking one or sometimes two palatinoids per diem.

I append a table of some of the changes observed during treatment:

1898.	Weight.		Urine.	Urea.	Palatinoids Ordered.
	st.	lbs.	ozs.	grs.	
Jan. 25	14	8	50	300	1 at night
" 29	—	—	54	337	2 "
Feb. 7	14	7	58	580	3 in 24 hours
" 14	14	3	—	—	3 "
" 22	13	13	70	560	4 "
Mar. 1	13	7	72	468	4 "
" 13	13	1	—	—	2 "
" 15	12	11	54	364½	2 "

NOTE.¹

For a full account of the chemistry and preparation see BRITISH MEDICAL JOURNAL of March 21st, 1896, January 23rd, 1897, and February 17th, 1897; *Journ. Physiol.*, vol. xx., p. 474.

PULSATING TUMOUR IN THE SUBMAXILLARY REGION.

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C. B., aged 32, was sent to me for operation suffering from a pulsating tumour in the left submaxillary region. Ten years ago he fell and struck his chin violently, and since then has noticed a swelling in his neck which has gradually increased in size.

A tumour the size of a golf ball lay just below the left ramus of the jaw. The swelling pulsated visibly, and on holding it between two fingers the pulsation was distinctly expansile. Pulsation was most marked at the posterior end, but could be felt all over the tumour. On pressure the swelling could be partly reduced, but regained its former size directly the pressure was removed. There was some lateral movement, but none in the long axis. Pressure over the line of the facial artery did not stop the pulsation. The facial artery itself

could not be felt. The position of the tumour is shown in the accompanying photograph.

I was of the opinion that the tumour was an aneurysm, and decided to dissect it out and ligature the artery at each end.

On reflecting the skin and dividing the fascia a layer of thinned-out muscle was exposed and divided. Beneath this another layer appeared, and finally the sac wall was exposed. Through this the nature of the swelling could be seen, and proved to be a mass of pulsating varicose veins. The dissection became rather difficult as the tumour extended a considerable distance up behind the ramus, and was firmly connected to the lower edge of the bone by strong fascial covering. Several vessels were ligatured, and the complete mass was removed. It was impossible to determine to which trunk these veins belonged, but from its situation I think that the lingual vein was the rent vessel.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

ACUTE THYROIDITIS: SUPPURATION: OPERATION, RECOVERY.

G. G., a French Canadian, aged 39, always healthy, both parents living, visited me on April 13th. He complained of a swelling outside the throat, also of stiffness of the neck. He stated that on April 8th he had been in the sugary gathering sap, and upon returning home first noticed the swelling. It rapidly increased and gave him some inconvenience, though swallowing did not incommode him, nor was inspiration embarrassed. Still, he was compelled to hold his head in one position, as turning it from side to side pained him considerably.

Examination disclosed an enlargement of the thyroid gland. There was a thickening of the tissues in the region of this structure extending downwards to the clavicles, and laterally to the borders of the mastoid muscles. The gland was hard to the touch, and slightly painful on pressure.

He visited me on the two following days. Tenderness was increasing, there was no rise in temperature, and the patient did not complain of chills. He suffered, however, from headache, stiffness of the neck, and loss of appetite. On April 16th he summoned me to attend him at his house. I found him in much the same condition, but he was vomiting, and showed symptoms of marked constitutional disturbance—coated tongue, fetid breath, and insomnia. The temperature was still normal. On April 17th the constitutional disturbance was more pronounced, the expression was anxious, the breath very offensive, the swelling was very tender, and the temperature was 102.5°. Some fluctuation could now be detected. I was satisfied that suppuration had taken place, and operated the following morning without administering an anæsthetic. A large quantity of stinking pus escaped. This gave immediate relief. An hour after my departure the patient declared he was very hungry, and demolished a plateful of beans and bacon.

This case appears to me to be interesting inasmuch as the disease is not frequently met with, and we have also a clear history of the causation, namely, exposure to cold. As a rule I believe thyroiditis is usually associated with infectious diseases or traumatism. In this instance, however, a history of neither was present.

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TROPICAL OEDEMA ON SHIPBOARD.

DURING the summer of 1884, I left England on account of my health, for residence in New Zealand. Amongst other troubles I knew that I had dilatation of the ventricles with imperfect closure of the valves. I felt much better as the voyage proceeded, and on arriving in the tropics was under the impression that I was rapidly gaining flesh, until, on closer examination, I found what I took for flesh was fluid; my legs and feet had become cedematous considerably. I communicated my unpleasant discovery to Dr. B. G. Corney, a fellow passenger, on his way to Fiji, where he holds a Government post of con-