The Inguinal Route (Lotheisen's Operation).

The inguinal route for femoral hernia, while being technically a more difficult operation, is relatively immune to those dangers referred to above. Resection and anastomosis can be carried out within this area as readily as through a laparotomy wound. The only danger peculiar to this route is the proximity of the femoral vein; but if the simple precaution is taken of protecting the vein with the finger during the insertion of the deep sutures the danger fades into insignificance. It has been my privilege to discuss the merits of this operation with a number of the younger surgeons, some of whom had lately embarked upon actual operative work. When asked what they found to be the difficult part of the operation there was a general consensus of opinion that it was placing the sutures through the periosteum and Cooper's ligament which overlies the ilio-pectineal line. This information emboldens me to describe a method of inserting these sutures which simplifies the operation. The femoral artery is located by its pulsation with the left index finger in the wound. The finger is now shifted 2 cm. to its inner side, where it will rest upon the femoral vein. Here the finger comes to rest and remains throughout this critical stage of the opera-

Method of placing the deep sutures referred to in the text.

tion. In order that the ilio-pectineal line may be clearly visible good retraction is necessary, and a valuable instrument for this purpose is Sargent's retractor. Its shining surface helps also to reflect light into the depths of the wound. It is held by the assistant in such a way as to keep back both the internal oblique and the peritoneum (see figure). With a rather small curved needle mounted on a holder three sutures are passed through the periosteum and Cooper's ligament overlying the ilio-pectineal line—the first being near the finger guarding the femoral vein and the last near the insertion of Gimbernat's ligament. After each suture has been placed the needle is removed, and the two free ends of the suture clipped together with a haemostat. The accompanying figure will make this stage of the operation clear. The detempered bendable needle, made by Philip Spencer of Redditch, which I described elsewhere,³ is very useful in passing these deep sutures. It may be bent up into a U shape, which materially aids matters when working in a confined space. Furthermore, it does not readily break if bone is encountered. The remainder of the operation is simple. Retractors and the guarding finger are removed. The free ends of the three sutures are passed through the conjoint tendon from its deep to its superficial surface, and tied in pairs. Thus the conjoint tendon is approximated to the ilio-pectineal line—the essential step in the repair by Lotheisen's method.

Analysis of Cases Treated by the Lotheisen Principle.

Number of cases	...	...	...	...	...	32
Died	...	...	...	...	...	1
Died two years later, no recurrence up to time of death	...	...	...	...	...	1
Untraced	...	...	...	...	...	4
Recurrence	...	...	...	...	...	2
Alleged recurrence; no hernia found on examination	...	...	...	...	...	1
No recurrence between one and six years after operation	...	...	...	...	...	22

Hey Groves's Operation.

To those of us who were taught and brought up in the belief that to sever Poupart's ligament was permanently to weaken the abdominal wall Hey Groves's operation, which the originator described in 1923,⁴ was something of a surprise. His results, however, were so good as to compel attention. Personally I have used the method in only a small number of cases, but these have been the very worst subjects for any operation—namely, those who were so fat that Lotheisen's operation would probably have been very difficult, or those who were so ill or old that life was almost despaired of. The operation is quick and efficient, and the end-results are exceedingly good. It combines the simplicity of the older operation with the safety and good end-results of the new. Resection and anastomosis is not quite so readily performed through this exposure as in Lotheisen's operation.

Number of cases	...	...	...	...	...	7
Died	...	...	...	...	...	2
Untraced	...	...	...	...	...	1
No recurrence	...	...	...	...	...	4

Conclusions.

1. Owing to the better exposure of the seat of the strangulation, Lotheisen's operation is less likely to be attended by operative accidents than the lower operation. Hey Groves's operation shares with Lotheisen's method this advantage.

2. The end-results of both Lotheisen's and Hey Groves's operations are very considerably better than the old lower operation.

3. The technique of Hey Groves's operation is easier to understand and to master than that of Lotheisen's operation.

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CANCER TREATED IN GENERAL PRACTICE BY COLLOIDAL LEAD.

BY

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I WAS very much interested in the proceedings of the International Conference on Cancer, especially in the discussion relating to the treatment of this disease by lead salts. The pessimistic conclusions of some members who were present appear to justify a report of my treatment of two cases of cancer which, two years ago, were condemned as hopeless and inoperable. Although my experience has been limited to two cases only, the results have been both illuminating and encouraging.

CASE I.—Carcinoma of the Right Breast.

The patient was 49 years of age and unmarried. In February, 1924, I performed a radical amputation of the breast. The tumour was examined microscopically, and reported to be definitely carcinomatous. In June, 1925, definite cancerous nodules appeared in the scar. The patient was now admitted to the Ashton-under-Lyne Infirmary, where Mr. Marcus Mamourian made a wide excision of the skin involved. In the following month she began to attend twice a week for x-ray treatment, but in spite of this the cancerous nodules reappeared in the skin and extended rapidly. In May, 1926, the whole of the right anterior chest wall was one mass of cancerous nodules. A further excision was suggested to her, but she declined to undergo any further operative intervention, and x-ray treatment was continued. By this time the patient had become very cachectic, and there was definite dullness on percussion over the upper right lobe of the lung and the mediastinum. She complained of difficulty in swallowing. There were undoubtedly secondary deposits of growth within the chest wall. As a last resort I began to give injections of colloidal lead. In June, 1926, the first injection of 1 c.cm. was given intramuscularly into the gluteal region. This was repeated every four days, the dose being gradually increased, until by the end of a month she was having 15 c.cm. After six months' treatment the scars on the chest wall instead of being fixed became more movable, the nodules in the skin had disappeared, and she had gained 14 lb. in weight. There was no albuminuria, and the patient felt very much better. During this time 166 c.cm. of colloidal lead were injected into the gluteal region. In the next two months only one injection of 10 c.cm. was given. At the end of this period there was a reappearance of the cancer nodules in the skin of the right

anterior chest wall, and they continued to increase in number. Injections of 12 c.cm. were now given at intervals of one week, and in addition small injections were made locally into the cancer nodules. Again the cancerous nodules began to show what I regarded as a reactionary stage, the nodules gradually becoming red in colour, then pink, and, later still, pale and glistening. A marked diminution in size was obvious, and they ultimately disappeared altogether. The pain had gone from the chest, and she could breathe and swallow with comfort.

I continued the injections monthly for four months. Then three small nodules reappeared in the scar. The period between each injection was shortened again, and the nodules began to go through the same reactionary changes as before. In consequence the intervals were lengthened, but apparently they were too long to keep the cancerous nodules under control, as these increased in size and number. Again weekly injections were given, and it was necessary to persevere in this treatment for a further six months before all the nodules disappeared for the third time.

What appears to me to be the most striking fact in the course of the treatment of this case is that undoubtedly the cancerous cells can be definitely influenced and controlled for a considerable period by the injections of collosol lead. As soon as the injections were diminished, either in amount or frequency, then did the cancerous growth regain its activity. In this particular case the effect of the injections on the cancerous nodules was apparent and clearly demonstrated.

During the whole period of twenty-seven months the total amount of lead injected intramuscularly was 804 c.cm. (or 12 grains). No albuminuria occurred at any time. So far there has been no further recurrence of the nodules in the skin, although only three injections have been made during the last two months, but her weight has decreased 6 lb. Whether the progress made in this case can be maintained remains for the present a matter of doubt.

The second case has been even more striking in view of the vast general improvement noted in the patient's health and appearance.

CASE II.—*Carcinoma of the Rectum.*

In October, 1926, the patient, a woman aged 41, was found to be suffering from an advanced carcinoma of the rectum. The surface of the growth was excavated and involved the whole circumference of the bowel. Its edges were raised, everted, and indurated, and bled when examined. The growth was high up in the rectum (5 in. from the anal orifice) and the surrounding tissues were infiltrated. Marked cachexia was present, her weight being 7 st. 10½ lb. There was a definite trace of albuminuria.

In November, 1926, I started a course of intramuscular gluteal injections of collosol lead, commencing with 5 c.cm., and a week later giving 10 c.cm. These were repeated about once a week, the amount varying from 8 to 14 c.cm. Occasionally the patient complained of slight abdominal pain of a colicky nature. Sometimes the injections were followed by a small increase of the albuminuria. With the occurrence of slight abdominal discomfort or an increase of the albuminuria the amount of the lead injected was decreased, or the interval between the injections lengthened. By this means she was enabled to take the injections without any real discomfort. At the end of six months' treatment the patient had gained 14 lb. in weight. She said she felt very much better, and certainly her statement was supported by her general appearance. Her appetite improved and the abdominal pain was practically absent. There had only been slight haemorrhage from the bowel. Examination at this stage indicated that the edges of the ulcer were softer, the rectum itself could be moved more freely and it did not feel so fixed as formerly. The ulcerating process had extended downwards an inch further in the rectal wall, and the lumen of the bowel directly above was narrowed and fibrosed. In addition to the intramuscular injections the patient was instructed to inject into the rectum two drachms of the lead solution with a urethral syringe, this to be carried out once a week. During the first six months 300 c.cm. of lead solution were given intramuscularly.

The patient was very satisfied with her progress and anxious for further treatment. The very definite improvement in her general health and appearance, and consideration of the rectal condition still present, encouraged me to persevere. The injections were omitted for one month, and then continued, varying the interval between each injection, or the amount given, according to the response.

The patient has been under treatment for twenty-two months and has gained 24 lb. in weight. The improvement in her looks has been so marked that some of her friends scarcely recognized her as the same woman, and she is now able to perform her household duties.

Rectal examination indicates that the ulcerated edge of the growth has extended downwards much further, and practically involves the anal canal. The lumen of the rectum is greatly reduced and is about the diameter of a lead pencil. The rectal wall itself appears to have been replaced by a solid mass of fibrous tissue. The rectum is not so fixed as before and can be moved more freely over the sacrum.

The question which arises is: Will the growth be defeated and exterminate itself when it reaches the anal margin? Should this be the case and the glandular involvement

(which undoubtedly must have been present earlier) have been influenced in a similar manner to the rectal growth, then one might look hopefully for a cure of the condition. It seems remarkable that with such diminution in the size of the lumen of the bowel the patient has not developed obstructive symptoms. With this in mind she has been kept on a modified though nourishing diet, and has taken regularly sufficient cascara and liquid paraffin to ensure a daily action of the bowels. There have been no bladder symptoms. The amount of albumin in the urine has varied slightly from time to time, but even now is no greater than when the treatment was begun. General tonic treatment has been given in the form of syr. ferri iod. and syr. glycerophos. co. The total amount of collosol lead given intramuscularly to date is 632 c.cm., or 10 grains of lead.

The first patient had very small and insignificant superficial veins of the arm, and it would not have been possible to give a prolonged series of injections, so the intramuscular method was substituted. This patient stood the procedure so well that I decided to repeat the method with the second case. Both patients stood these injections well, and by giving them alternately into either buttock no untoward results occurred locally, except that the site of injection sometimes remained a little indurated. Occasionally slight tenderness was complained of for a day or two. The patients were treated at the surgery, and were advised to rest quietly for twenty-four hours, after which time they went about as usual.

Generalization regarding two cases only is not possible, but the results achieved and the observations made in the case of the secondary carcinoma of the breast, where the growth could be kept under direct observation, emphatically proves that lead has a very definite and detrimental action upon cancer cells. Intramuscular injections appear to produce the desired effect without causing acute toxic symptoms, and the patient can be brought more gradually, and with greater safety, under the influence of lead.

The encouraging response in these cases appears to warrant a more general consideration of the treatment. The lives of these two patients have been undoubtedly prolonged and made more comfortable and hopeful. One can only trust that by reporting these cases a little further encouragement may be given to the pioneers in the fight against cancer with lead salts. Moreover, the treatment does not appear to merit such wholesale condemnation and adverse criticism as it has recently received.

TREATMENT OF HAEMORRHOIDS BY THE GALVANO-CAUTERY.

BY

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In October, 1925, I read a paper at a meeting of the Harveian Society on the treatment of haemorrhoids by the galvano-cautery. A synopsis of it was published in the *British Medical Journal* of November 28th, 1925 (p. 992), and attracted a good deal of attention. It seems advisable, therefore, that I should make public the new experiences I have encountered during the past three years, with notes of exceptional cases.

My records during this period are in entire accord with the opinion I expressed in 1925—namely, that the method I then advocated is the best means of curing haemorrhoids known at the present time; it has been adopted by many of my colleagues in the treatment of their own patients.

The subject-matter of this communication falls into three categories.

General Observations.

The rotating speculum, made to my design by Messrs. Allen and Hanburys, has proved of inestimable value. It ensures quick, accurate, and neat work. It is not necessary to withdraw this speculum and reinsert it, as had to be done when the older patterns were used. The cut-away gap can be revolved in a second to catch any portion of protruding mucosa which may drop into it.

I find, however, that for some cases in which haemorrhoids are high up, above the internal sphincter, it is