It is interesting to recall Goldthwait's (1911) report of a case made worse by manipulation. The following is a brief extract.

A man aged 39 developed a severe attack of "lumbago" after a fairly long car journey and carrying a heavy suitcase for over half a mile. A previous similar attack seven years before had been treated with a surgical corset and had resulted in complete recovery. After a restless night the patient got up and took a tub bath. "On trying to get out of the tub, in bending forward and straining to get up, something slipped in his back, entirely different from anything he had before experienced. The body was drawn forward and to the left; there was intense pain, so that it was with great difficulty that he was able to get back to his room, and the suffering continued until he was seen by the doctor four hours later. At that time the body was held bent forward and to the left. There was extreme tenderness in the sacral region, with pain extending into the legs, the right being worse than the left." The condition was regarded as a sacro-iliac displacement and two manipulations were given, the first under general anaesthesia and the second without an anaesthetic. A cauda-equina lesion was produced, the patient having urinary and faecal incontinence and a flaccid paraplegia.

The case stimulated Goldthwait to much thought and research, from which he concluded that intervertebral disk prolapse played a large part in the production of "lumbago," "sciatica," and cauda-equina lesions.

I wish to thank Mr. B. H. Burns and Mr. R. H. Young for their permission to publish this case, treated under their care at St. Peter's Hospital, Chertsey.

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Medical Memoranda

Prostatic Obstruction and Inguinal Hernia: A New Approach

Straining at micturition and the weakening of the tissues which accompany advancing age are well-recognized factors in the aetiology of inguinal herniae. It is not surprising, therefore, that cases of prostatic obstruction are often complicated by herniae. McDonald and Huggins (1949) found the incidence to be 15%. These herniae are liable to the serious complication of strangulation, itself a more lethal malady than prostatic obstruction. It thus behoves the surgeon to cure both conditions.

Now that asepsis, stressed by me (Moore, 1939) and by Wilson Hey (1945), has been more generally observed in urology, prostatectomy has become a safe operation. Wilson Hey has already stated that it can be safely combined with other procedures, including herniorrhaphy. It has become my routine to deal with the inguinal hernia at the same time as the prostate. For this reason, when the patient has a hernia I recommend open operation, even in those types of prostatic obstruction in which I would normally carry out a transurethral procedure. For the past 12 years I have used almost entirely only the transverse suprapubic incision for operations on the prostate and bladder. Through this incision I also carry out inguinal herniorrhaphy—often on both sides.

Although many patients who present with prostatic obstruction are found on examination to be suffering from inguinal hernia, one also encounters cases of inguinal hernia in old men who make no complaint of urinary symptoms. On direct inquiry and investigation many are found to be suffering from prostatic obstruction. If the prostate is not treated they often develop post-operative retention of urine

which fails to respond to conservative measures. Eventually they have to be submitted to prostatectomy, in either one or two stages, with all the dangers of the sepsis which has developed during the interval. There is no question that the period in hospital after a one-stage operation dealing with both conditions is far shorter than that following prostatectomy performed some time after herniorrhaphy. In fact, the period in hospital after a combined prostatectomy and herniorrhaphy is no longer than that after a prostatectomy alone.

TECHNIQUE

In old bad-risk cases I always employ low spinal anaesthesia and a local block of the abdominal wall. A transverse incision 4-6 in. (10-15 cm.) long is made a finger-breadth above the pubis. If only a one-sided hernia is to be done more of the incision is placed on that side of the midline. The skin, superficial and deep fascia, and the anterior rectus sheaths are opened in the line of the incision, which extends a little lateral to the rectus into the aponeuroses of the external and internal oblique muscles on the side of the hernia. In the midline the rectus sheath is separated from the linea alba down to the pubis and up towards the umbilicus for 2-3 in. (5-7.5 cm.). The rectus muscles are then separated in the midline and the type of prostatectomy preferred is carried out. In my practice this is almost always a Millin prostatectomy.

When this procedure has been completed the retractors are removed and the muscles allowed to fall together. The inguinal canal is then approached lateral to the rectus muscle between the internal and external obliques, where they are fusing to form the rectus sheath. When these are gently separated the arching fibres of the internal oblique forming the cremasteric muscle are soon visible. These are divided in the length of the canal and the cord and its contents exposed. The sac, whether direct or indirect, is dissected free and dealt with in the ordinary way. If the canal is weak and requires strengthening, any of the usual methods can be used. When the Bassini procedure or one of its modifications is adopted it is evident that the conjoined tendon can be brought down to the inguinal ligament with much less tension than in the more direct approach, because the internal oblique has already been incised at the level of the suprapubic wound. It is important in closing the transverse incision that the upper leaves of the external and internal obliques should be sutured to the lower one of the external oblique only, otherwise the relaxation of the internal oblique already obtained is lost. During the operation I often divide the vas as near the external ring as possible, preferably on the external side. Before the wound is finally closed the cave of Retzius is usually, but not always, drained.

Post-operative Course.—Sulphadimidine, 1 g. six-hourly, and penicillin, 200,000 units intramuscularly eight-hourly, are given two days before the operation, and are continued for five days after it. In cases with urinary infection due to organisms insensitive to these agents streptomycin is sometimes used, 0.5 g. being given by intramuscular injection 12-hourly for four to five days. Normally, patients are allowed up on the second day after operation. The cave of Retzius drain is also removed on that day. The catheter is removed on the fifth day. When a hernia has been done at the same time as the prostatectomy the patient is usually kept in bed for seven days. Patients are discharged from hospital 10 to 12 days after the operation.

COMMENT

I have carried out this operation many times and have had no cause to regret it. Many of the patients have been of the poor, old, municipal-hospital type. The results of the cures of the herniae have been as good as those obtained by any method of treatment in people of this age. The patients are delighted to get rid of their ruptures at the same time as their urinary trouble; surgically they are very much safer. It may be objected that leakage of urine may lead to infection

of the inguinal canal. In modern prostatectomy, however, practically speaking, no leakage occurs. Whatever theoretical objections may be raised against the method, in practice it works.

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Paralaryngeal Actinomycosis in a Child

Actinomycotic infection in childhood is a rarity. The following case is of interest in view of the mode of presentation, the early stage at which actinomycotic infection was discovered, its occurrence in a rarely encountered site of the cervico-facial region, and the peculiar eosinophilic inflammatory reaction.

CASE REPORT

The patient, a girl aged 8, attended as an out-patient under Mr. W. R. S. Hutchinson on March 4, 1950. She had had a small painless left-sided cervical swelling for the past four months, clinically diagnosed as tuberculous adenitis. There

Photomicrograph of abscess, showing felted mass of actinomycotic hyphae lying within.

was no history of any serious illness or contact with tuberculosis, and she was otherwise quite healthy. X-ray films of the chest revealed nothing abnormal, the mouth and upper respiratory passages were free from disease, and there were no carious teeth.

On April 4 she was admitted for removal of the supposed lymph nodes. At operation, performed by Mr. B. Courtice, a mass, approximately 1 by $\frac{1}{2}$ in. (2.5 by 1.9 cm.), was found in the lower half of the anterior triangle of the neck lateral to the trachea and the infrahyoid muscles deep to skin, which was not involved, and deep to the cervical fascia. It was not encapsulated. A fibrous band was found passing from the mass upwards in the neck towards the angle of the jaw.

Histological examination revealed that the mass was not of lymph nodes, but consisted of fibro-muscular tissue surrounding a small central abscess. Lying within the abscess was a discrete felted mass of actinomycotic hyphae (see illustration). The surrounding cellular reaction infiltrating the muscle around showed polymorphs, lymphocytes, and

plasma cells, with a strikingly large number of eosinophils. Numerous further sections of the tissue submitted failed to reveal any other actinomycotic masses.

Investigations into the staining reactions of the organism were limited by the minute amount of available material. It was found to be Gram-positive, non-acid-fast. An unsuccessful attempt was made to culture the organism from a slight discharge from the wound following its discovery in the abscess. The child was treated with penicillin, 500,000 units daily for three weeks. The wound healed rapidly, and so far there has been no recurrence.

COMMENT

It is suggested that the case was one of the primary paralaryngeal or parapharyngeal group of cervical actinomycosis first described by Hoffmann (1906). The situation in the neck, the absence of any external wound or history of trauma in this region, and the lack of any evidence of actinomycosis in the mouth or elsewhere in the neck all fall in with this view.

Hoffmann's first case presented sinus formation and swelling of the arytenoid cartilages; in 1909 he described a further nine cases of paralaryngeal actinomycosis and stated that laryngeal involvement was not constant. Beysiegle (1933) found in the literature 19 cases of laryngeal actinomycosis and considered that there were very few cases of actinomycosis of the neck related to the larynx without evidence of perichondritis. Vogel (1935), in a review of 14 cases, describes one case without involvement of the skin or of the larynx. Peter Childs (1948) describes a case of paralaryngeal actinomycosis without involvement of skin or larynx which he considers to be only the second to be recorded. Both Hoffmann and Vogel found paralaryngeal cases commoner on the left side, adding that lymph-node involvement was not a feature, and that there was no relation to carious teeth. Lamb, Lain, and Jones (1947) review cervico-facial actinomycosis. They mention the rarity of primary cervical cases, restricting this group to cases in which infection does not obviously spread from neighbouring mucous membrane or from systemic infection. They describe one primary case only, and in this the patient had infiltration at the base of the left lung, which may have been actinomycotic.

There are three views on the mode of entry of the fungus in the paralaryngeal group: (1) Entry through the lateral pharyngeal wall via the inferior constrictor muscle is suggested by Hoffmann; he constantly found an indurated band from the angle of the jaw to the upper end of the swelling in the neck. This band was found in my case. (2) Entry via the tonsils is suggested by Vogel. (3) Schütz (1938) concludes that infection travels directly through the mucous membrane of the pharynx or hypopharynx. The point of entry of the organism in my case is unknown.

As to why a parasitic organism becomes pathogenic, Mathieson *et al.* (1935) suggest that it results from repeated absorption of toxins, ultimately causing allergic sensitization. The very marked eosinophilic cellular reaction which was so striking a histological feature in my case may be relevant to this view.

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