AN UNUSUAL HAZARD ENCOUNTERED DURING A PRESACRAL SYMPATHECTOMY

Report of a Case

by

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Introduction

In modern gynaecology, there is a definite place for the operation of presacral sympathectomy. Broadly speaking, the common indications are severe and intractable dysmenorrhoea not amenable to any other method of treatment, in connection with conservative treatment of endometriosis and for the relief of visceral pain in inoperable cases of carcinoma of the cervix. Other conditions for which this operation has been used are, pruritus vulvae, dyspareunia and for the cure of mittelschmerz. (Te Linde)

The operation was first performed by Jaboulay (1898), and was popularized by Cotte (1925), the latter reporting a large series of cases with favourable results. Since then a spate of literature has appeared on the subject.

There are certain well known difficulties and dangers that one may expect during the course of the operation. A case is reported herein in which an abnormal kidney caused considerable difficulty in the performance of the operation, and as I have not seen any reports in the literature of such instances, the following case has been considered worthy of reporting.

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Case Report

Miss D. W., 22 yrs., was first seen in the out-patients department on the 27th November, 1957.

Complaints: (i) Dysmenorrhoea, ever since menarche, and gradually getting worse. (ii) Pain in the right iliac fossa—for past 12 months.

Past history of illnesses—Nothing significant.

Menstrual history—Menarche—13 years.

Menstrual cycle—6/14 to 28 days; always irregular.

Loss—Average.

Pain—Premenstrual and continuing throughout the period.

Felt mostly in the lower abdomen and in sacral region.

Last menstrual period—18th November, 1957.

No subjective symptoms referable to gastrointestinal and urinary system.

On examination

General health—good. Well-developed adult female.

B.P.=110/65 mm. Hg.

Heart and lungs N.A.D. Pulse=76/min.

Breasts—Well-developed.

Per abdomen—Some tenderness over the McBurney's point. Otherwise normal.

Pelvic examination (rectally)

Uterus anteverted, normal in size and mobile.

Cervix healthy.

Adnexa and pouch of Douglas—normal.

Treatment

The patient was advised to follow

regular healthy life, to avoid constipation and to take things quietly during the periods. She was also given Placadol tablets to use during the painful episode of bleeding, and advised to report in two months.

After using the regime for two months patient reported no relief. Subsequently she was treated with various analgesics and antispasmodics such as codeine, A.P.C. tablets, Panadol, Buscopan and even atropin and pethidine. All these compounds gave her relief temporarily but immediately on cessation of the treatment the dysmenorrhoea recurred with the original severity. Pethidine was quite effective but because of its habit forming effects it was not used for more than three occasions. She was also treated with oestrogens for 3 months, which failed to give her relief permanently.

It was then decided to examine the patient under anaesthesia and to dilate the cervix. This examination confirmed the presence of normal genital organs and then the cervix was dilated to size 12 Hegar's dilator.

Following this procedure the patient remained almost free from pain for about four months but again the dysmenorrhoea recurred. She complained of feeling completely miserable during each period and that the dysmenorrhoea was definitely increasing. The question of marriage and pregnancy was discussed with her, to which she did not show any inclination.

Under these circumstances, in the best interest of the patient, a presacral sympathectomy was decided and the procedure was explained to the patient, to which she readily agreed.

Operation (2-2-60)

The abdomen was opened by a midline subumbilical incision. The intestines were packed off and the operating table was made Trendeleberg. Three points of Cotte were then idenfied, namely, the bifurcation of the aorta, the promontory of the sacrum and the inferior mesenteric artery. It was found that there was a swelling occupying the upper half of the triangle formed by the aortic bifurcation and the promontary of the sacrum, which contains the presacral or the hypogastric nerve (Fig. 1).

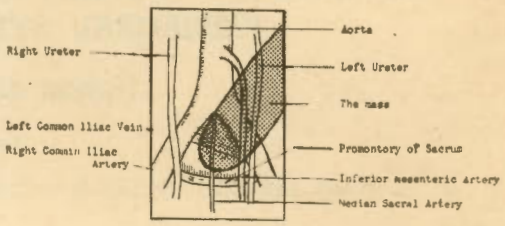

Fig. 1
Showing encroachment of the mass in the triangle Cotte.

The swelling was palpated and was felt continuous with the left kidney. The right kidney was then palpated and was found to be slightly elongated in shape. There did not seem to be any connection between the two kidneys along their upper poles. The uterus, tubes and ovaries were next palpated and were found normal.

The peritoneum of the triangle was incised in its lower half and its undersurface cleared of the areolar tissue which contains some nerve fibres. The ureters and the inferior mesenteric artery were drawn aside but even then the left common iliac vein was not exposed, as it was under the mass. The peritoneum over the mass was carefully incised for about an inch and it was found to have the same colour and texture of the kidney. The lower pole of the mass was separated from the subjacent structures by blunt dissection and all areolar tissue containing nerve bundles were removed. Thus all connective tissue was stripped and cleaned in front of the fourth and the fifth lumbar vertebra and along the left and the right common iliac arteries down to their bifurcations. The lower pole of the mass was then replaced in its place and the peritoneum was closed by continuous number 0 catgut suture. The appendix was then removed and finally the abdomen was closed in layers.

The post-operatve period was uneventful. Intra-venous and retrograde pyelograms were done after a month and a picture of the latter (Fig. 2) is reproduced. A cystoscopic examination revealed a normal blad-

der and two normally functioning ureteric orifices.

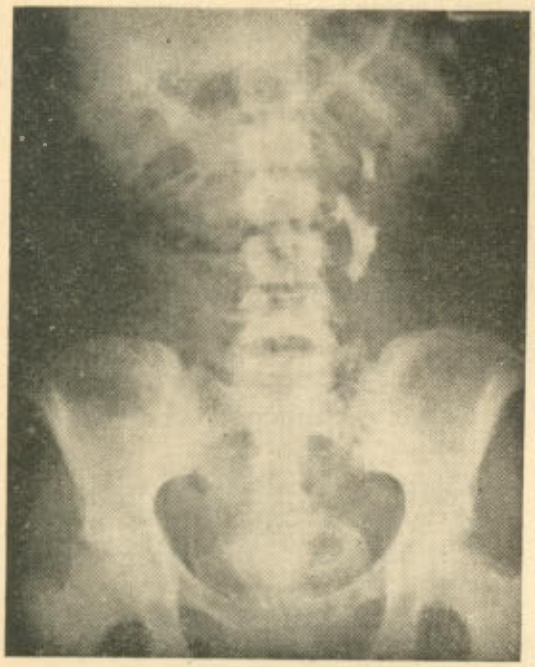

Fig. 2
Retrograde pyelogram to show the left kidney, which covered more than 2/3rd of the treangle of cotte.

Follow-up: The patient has remained well ever since although the first two periods were heavy. She is now able to do her duties during the period without any trouble whatsoever.

Discussion

In this paper I do not wish to discuss the results of this particular procedure but would concentrate on the hazards of the operation. Among the well recognised difficulties and dangers of the operation, injuries to the ureters, inferior mesenteric blood vessels, left common iliac vein and the median sacral artery are important. In addition to these, one has to take into consideration the dangers of general anaesthesia and the complications that may ensue after any abdominal operation in general.

Ureters can be saved by bearing their position in this situation in mind, by exposing them in the early part of the operation and by gently retracting the structures out of the way. The left common iliac vein lies in the upper part of the triangle of Cotte and can be avoided by carrying out blunt dissection. In this case this structure was particularly vulnerable to trauma because it was hidden almost entirely from view by the lower pole of the abnormal kidney (Fig. 1). Another hazard encountered was to avoid the mid-sacral artery which, again, was covered over by the mass. The artery lies in the fascia covering the fifth lumbar vertebra and the presacral nerve lies superficial to it, and extremely careful blunt dissection avoided the trauma.

The question arises whether the pressure of the abnormal kidney was responsible in any way for the occurrence of the intractable dysmenorrhoea. The patient was completely relieved when the nerve was removed. It is known that the presacral nerve carries constrictor and sensory fibres from the uterus. Cotte (1925) and Davis (1938) held that in majority of cases of dysmenorrhoea there is subacute or chronic neuritis in the sympathetic nerves of the uterus and in their ganglia. Cotte and Davis found the degenerative changes in 75 per cent and 70 per cent respectively. They believed that the pain was due to exaggeration of either motor or sensory impulses rendered hypersensitive by the inflammatory process. It is just possible that the abnormal kidney was pressing on the

nerves producing an effect akin to that of compression of nerve bundle by inflammatory oedema.

It is urged here that an intravenous pyelography should be done in all cases in whom the operation of presacral sympathectomy is contemplated. Besides showing the structure and disposition of the kidneys, it would disclose other abnormalities such as double ureter, megaloureter, or postcaval ureter and a foreknowledge of their presence is a forewarning to the operator who would be doubly careful. In addition to this, needless to say that cystoscopic examination is very helpful. Considering the fact that renal tract abnormalities are often associated with genital tract abnormalities, both systems should be investigated, when abnormality is found in either of them. In this particular patient the genital tract was normal on gynaecological examination and also when viewed at laparotomy. The presence of a septum in the uterus was excluded by means of the uterine sound, which is sometimes more useful than a hysterogram when the septum is a small one and partial.

Acknowledgement

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References

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3. Jaboulay (1898): Referred in Operative Gynaecology by R. W. Te Linde. J. B. Lippincott Company, Philadelphia, 1946.