

Case of Retention of Urine Caused by Incarcerated Myoma

Case Report

Presented by Doctor T. A. Sinnathuray.
Case No.:—451B—L.S.M.—Chinese. Aet.
50. Para 5.

The patient was transferred from the General Hospital with a diagnosis of "left ovarian cyst."

CLINICAL HISTORY:—

She had been married for 34 years and a widow for the past ten years. All her 5 pregnancies and labours had been normal. She was complaining of:—

1. Progressive swelling of the left lower limb for 2 to 3 weeks.
2. Swelling of the lower abdomen for 1 week.
3. Vaginal staining for 3 weeks following 16 months amenorrhoea.
4. Constipation and inability to pass water for 3 days.

On interrogation she admitted having dysuria for about 2 months and passing water less often and only small amounts at a time. She had found it difficult to start the act and for 3 days could not micturate at all though the urine dribbled away.

CLINICAL EXAMINATION:—

She was afebrile. Pulse rate 88/minute. B.P. 120/80. Heart and lungs were normal.

A tense, oval, tender, centrally situated cystic mass was palpable in the lower abdomen apparently arising from the pelvis and extending to the level of the umbilicus.

There was obvious oedema of the whole of the left lower limb and the superficial veins were prominent.

Vaginal examination:— The bladder was catheterised and 52 ounces of clear

urine withdrawn and the abdominal mass disappeared.

The vulva was healthy. There was a small cystocele and rectocele. The cervix looked healthy. Bimanual examination revealed a uterus symmetrically enlarged to the size of an 8 weeks pregnancy, semi-solid in consistency, retroverted and fixed in the cul-de-sac of Douglas.

TREATMENT:—

The uterus was pushed upwards and maintained in an anteverted position by a ring pessary. A self-retaining catheter was left in the bladder and chemotherapy was exhibited.

INVESTIGATIONS:—

1. Urinalysis:—Albumen +; E.C. 1-2; P.C. 20-25; R.B.C. 4-5.
2. Blood urea:—17 mgm. %
3. Haemoglobin:—80%

PROGRESS:—

The catheter was removed after 48 hours and she was able to pass urine normally with a residual amount of only 2 ounces. Her general condition was satisfactory and a panhysterectomy and appendicectomy were performed on 14th February 1957.

The uterus showed a soft interstitial myoma, about 6" in diameter, in the posterior wall of the uterus. The cut surface of the myoma showed marked hyaline changes with cystic areas in several places. The uterine mucosa appeared normal. The appendages seemed normal apart from a slightly cystic right ovary. Histological examination confirmed the tumour to be a leiomyoma. The appendix was normal.

CONVALESCENCE:—

This was normal and the swelling of the left leg gradually subsided. Residual urine 2 days after operation was 1 ounce. An I.V.P. taken 4 days after operation was normal.

Discussion

This was opened by Dr. J. W. F. Lumsden. He said that he did not intend to review the literature but would draw the attention of the meeting to the symptoms and treatment of fibroids. He classified the symptoms as follows:—

1. None.
2. Abdominal swelling.
3. Vaginal bleeding and delayed onset of the menopause.
4. Pain.
5. Pressure symptoms on various organs.

He said that although uterine fibroids seldom caused death, they were associated with much chronic ill-health e.g. anaemia, constipation, dyspepsia, psychosomatic symptoms etc. There was also the possibility of sloughing, degeneration, torsion, infection and, more rarely, sarcomatous changes occurring.

The case under review presented symptoms of post-menopausal bleeding, pressure on the bladder and possibly pressure on the blood vessels of the left lower limb. It was interesting to note that ovarian cysts impacted in the pelvis almost never caused urinary retention. One wondered why the myoma in the present case should have caused retention 16 months after the menopause. Doctor Lumsden continued by saying that urinary retention in women is rare except in cases of impacted fibroids or patients with an incarcerated gravid uterus. Moore (Proc. R.S.M. July 1953) reviewed 100 cases of retention caused by diseases of the bladder neck e.g. glandular hypertrophy, fibrosis, inflammation and muscular hypertrophy.

Continuing his discussion in relation to treatment, Doctor Lumsden mentioned that Lockyer, (Lockyer, C., 1928, *Myoma of Uterus: Lewis' System of Surgery*: W. F. Prior Co.) stated that 50%, and Greenhill (Ed. comment; Year Book of Obstet. & Gynec. 1951) that 66% of myomata require no treatment. For those cases with complaints symptomatic treatment may be indicated e.g.:—

1. Menorrhagia may be treated by bed rest, oxytocic drugs, blood transfusion and iron therapy.

2. Pain and pressure symptoms by heat and analgesics.
3. Urinary retention by catheterisation, following which the congestion in the tumour would be eased with possible freedom from symptoms for some months

Some authorities recommended treatment by irradiation. This produced effects mainly by suppression of ovarian function and also, to some extent, by causing direct atrophy of the myoma. It may be used in women of 45 or over with small or medium sized fibroids not undergoing degenerative changes.

Surgery was indicated when:—

1. The myoma was larger than a 20-week gestation.
2. When there was rapid increase in size of the growth, pain or irregular uterine bleeding.
3. When symptoms developed after the menopause.
4. When there was urinary retention or other pressure symptoms.

As regards the operation the choice lay between myomectomy and hysterectomy. Bonney (*The Technical Minutiae of Extended Myomectomy and Ovarian Cystectomy*. London Cassel & Co. 1946) stated that:—

1. The mortality rate for the 2 operations was similar. It was 1.1% in his series of 806 myomectomies.
2. Of those complaining of sterility, 38% became pregnant and 75% of these had normal deliveries.
3. Recurrences of the growth in his cases were sarcomatous.

Hysterectomy could be total or subtotal, with or without salpingo-oophorectomy. His feeling was that the current popularity of the total operation will wane because of its detrimental effect on a woman's sexual function and also because of interference with bladder function. Lewington (J.O.G.B.E. December 1956) showed this to be so in the case of the Wertheim hysterectomy and the extended operation for carcinoma of the corpus. In these malignant cases the disability had to be borne but it was not justified in benign condition.

Professor Sheares asked whether it had been difficult in the case under discussion to pass the urinary catheter as in a large proportion of cases of urinary retention complicating incarcerated fibromyomata the external urethral orifice was drawn well into the vagina and was at times rather difficult to find.

Doctor Lumsden said there was no difficulty in catheterising this particular patient.

Professor Sheares next asked whether there had been any precipitating factor which caused the retention of urine, such as an episode of alcoholic indulgence as the woman was already post-menopausal.

The answer was no, and that the aberration in micturition had been in existence for several months before the final block.

Doctor Manion suggested that in cases of retention of urine due to a retroverted gravid uterus or an incarcerated fibroid all that was necessary was to empty the bladder rapidly and replace the uterus. He thought that using an indwelling catheter with antibiotic cover had been unnecessary and might even have been harmful.

In acute retention of urine he thought that it was quite the correct procedure to empty the bladder rapidly by using a catheter. It was only in cases of long standing retention of urine, such as might be caused by an enlarged prostate, that the bladder should be emptied slowly.

Retention of urine due to an impacted fibroid was usually associated with certain precipitating factors or certain physical activities. In U.K. it was well known that this phenomenon tended to occur more often in the fruit bottling or pickling season, the probable reason was that, when the woman reached for the upper shelf of her cupboard, her fibroid flopped backwards into the pelvis.

Doctor Lumsden in reply said that the bladder had obviously been grossly over-distended for a number of days and possibly had lost its tone. The catheter was left in to allow the bladder to regain its tone; antibiotics were given because the urine had pus cells in it.

Doctor Manion went on to express disagreement with Dr. Lumsden's view that

the increased menstrual bleeding associated with myomata was due to thickened endometrium. He believed that it was dysfunctional in type.

He continued by saying that intestinal obstruction as a complication of fibroids suggested the presence of parasitic or neoparasitic growth, and the factor was the bands of adhesions associated with these types of fibroids. He did not think that pressure between the fibroid and certain bony prominences could cause intestinal obstruction.

By and large he thought that the mortality, and certainly the morbidity rate, was higher with myomectomy than with hysterectomy. He did not agree with the argument that one of the advantages of subtotal hysterectomy over total hysterectomy was that in the former operation bladder function is less interfered with. In the straight-forward total hysterectomy the bladder function was seldom impaired. Extended hysterectomies, such as the Wertheim hysterectomy, were usually followed by a certain degree of impairment of bladder function.

He thought that inability to pass urine in cases of fibromyomata due not so much to pressure on and stretching of the urethra as to an alteration in position and function of the first part of the urethra. One got the desire to micturate due to intravesical pressure, but the ability to initiate micturition depended on the presence of urine at the vesico-urethral angle and a shift in a position of this portion of the urinary tract could cause inability to micturate.

Doctor Sinha pointed out that in most cases of the type under discussion the cervix uteri was drawn well up and asked if it was so in this particular case. The answer was in the affirmative.

He next expressed doubt on the explanation that the unilateral oedema of the lower limbs was caused by the myoma as in his opinion pressure by the tumour would be more likely to be exerted on the internal iliac vessels than on the external iliac vessels.

Doctor Lumsden in reply said that, as the oedema did not disappear after catheterisation but did so after hysterectomy, he was quite convinced that the myoma was the cause of the oedema.

Professor Sheares maintained that the unilateral oedema could not be explained on the grounds of mechanical pressure of the tumour. Recent work had shown that, in the case of large non-malignant cystic tumours of the ovary, the unilateral oedema often present was due not to mechanical pressure but to phlebo-thrombosis of the iliac veins on the affected side. Though no mention of this has been made in the literature with regard to fibromyomata, he saw no reason why the same explanation should not apply. In the case under review, the oedema subsided gradually, suggesting gradual resolution of the venous clot rather than the dramatic recovery one would expect had the cause been merely the pressure of the tumour. This, he thought, was an important point to bear in mind both at the time of operation and in the post-operation management of the case.

He stressed that retention of urine was not due to the size of the fibromyoma but stemmed from the site of origin of the growth relative to the anatomical divisions of the uterus. Thus, urinary retention was associated with cervical fibroids or those arising in the region of the isthmus which is fixed in the pelvis by the fascial attachments of the uterus, and therefore, the growth cannot mount out of the pelvis as it enlarges. Furthermore, these portions of the uterus are in firmer relationship to the bladder neck and first part of the urethra and growths from these areas are very likely to alter the anatomical relations of the urethra and vesico-urethral junction.

Doctor T. K. Chong remarked that it was rather interesting that in the case under review the I.V.P. readings were normal and the uterine adnexae were quite normal too, because in at least 30-50% of myomata or any other pelvic tumours there were associated changes in the architecture of the renal tract, and 15% of myomata were associated with inflammatory disease of the adnexae.

Doctor Lumsden in reply said that the myoma was situated near the uterine fundus. Alterations in renal architecture were usually associated with cervical or isthmal fibroids.

Professor Sheares said that about 1 in 3 fibroids large enough to fill the true pelvis (or larger) caused hydronephrosis

Smaller fibroids complicated by pelvic inflammatory disease might cause pressure on the ureters. Dilworth, Mays and Locke (New Orleans Med. & Surg. Journ. 104: 228, 1951) in their series found that 31.26% of their cases of fibroids large enough to fill the pelvic cavity caused hydronephrosis. In all but one of their cases, the hydronephrosis cleared following removal of the tumour.

Doctor Manion said that in deciding on the type of treatment for uterine fibroids the following classification was worth considering:

1. (a) Fibroids with symptoms
(b) Fibroids without symptoms.
2. (a) Fibroids in the multiparous woman.
3. (a) Fibroids in the premenopausal woman.
(b) Fibroids in the post-menopausal woman.

Doctor Lumsden next said, besides the usual symptoms one usually associates with uterine fibroids, the psychosomatic aspect should be considered. He instanced the case of the British county lady who, when she was aware that she had a uterine fibroid, started complaining of various aches and pains until she became a complete hypochondriac. However, all her complaints ceased and she became a normal healthy woman again after the fibroid had been removed.

Professor Sheares said that in view of the fact that the incidence of endometrial carcinoma was much higher in the fibromyomatous uterus of the pre- and post-menopausal age he would prefer to remove the uterus if the fibroid were, say the size of a tangerine orange, even if it were symptomless at the time of examination.

Referring to the mortality rate of 1.1% of Bonney for myomectomy, quoted by Doctor Lumsden, he said it was interesting to note the much more recently quoted mortality rate of 0.04% in a series of study of 6,248 hysterectomies in 35 California hospitals collected by Doyle (J.A.M.A. 151: 360, 1953). The most striking feature in this article was that 4,459 women complained of menstrual aberrations and yet 86% of these had no benefit of a diagnos-

tic D. & C. which in many cases might have proved to be curative especially with the current widespread use of oestrogens. In 584, chronic cervicitis was as an indication for the hysterectomy. 81.5% did not have pre-operative cervical biopsy. There were 45 cases of fundal carcinoma and 20 cases cervical carcinoma which were missed pre-operatively and in none of these was a curettage, cervical biopsy or Papanico-

iaou smear study done. In the opinion of Doyle only in about 60% of the cases reviewed was the hysterectomy justifiable, and he remarked that not only was too much gynaecological surgery done, but too much of it was too radical. The first author to analyse a large series of hysterectomies from the point of the indications and post-operation pathological findings was Norman Miller in 1945.