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The Management of Uterine Fibroids in the Rhodesian African

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Uterine fibroids are a common cause for admission to the Gynaecological wards in Harari Hospital, comprising 15 per cent. of our admissions. They are the most common reason for performing major gynaecological surgery.

They are known to occur more frequently in Africans throughout this continent and also in those of African origin in the West Indies and America. It is interesting to consider this condition in relation to the pattern of other gynaecological disorders in the Rhodesian African. Endometriosis and carcinoma of the uterine corpus are very rare whereas carcinoma of the cervix is very common. Dysfunctional uterine bleeding is seldom seen but this may be because the symptoms are not grave enough to bring the patient to hospital. Prolapse is very rare indeed.

The age of marriage amongst the Rhodesian African is early, usually between 16 and 19 years. Voluntary infertility is very rare and only in the last few years has family planning become accepted.

It is a disaster of the gravest magnitude if an African woman fails to bear children for if she fails she may be divorced by her husband. For many it is almost as important that she should menstruate for menstruation is often regarded as

a form of purging; if during normal marital life she does not menstruate, and this is not due to pregnancy, there are those who believe that the husband's semen and various poisons will become dammed up inside her body.

Failure to menstruate may also become a cause for divorce and social ostracism. For these reasons many women are most unwilling to undergo hysterectomy, and it is important to explain in simple terms what the physiological state will be before operation.

There is no word in Shona, the language spoken by the African people in this area, for fibroids. There is a loose word referring to a tumour in the abdomen which is used and would appear to include all types of central and lower abdominal tumours.

MATERIAL:

One hundred and sixty seven patients, who were admitted to the Gynaecological wards between January, 1967, and May, 1968, with a primary diagnosis of fibroids, are reviewed in this paper. Cases where fibroids were not the primary cause for admission are excluded.

METHOD:

A retrospective study has been made of the records of these patients with particular reference to the age, parity, presenting symptoms, haemoglobin, method of treatment, degree of infection complicating the case, the size of the tumour and the presence of bilharzia in the cervix.

RESULTS

(1) Age

| Years | 15-20 | 21-25 | 26-30 | 31-35 | 36-40 | 41-45 | 46+ |
|--------------|-------|-------|-------|-------|-------|-------|-----|
| No. in group | 4 | 8 | 33 | 37 | 45 | 24 | 16 |

(2) Parity

| Para | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|--------------|----|----|----|----|----|---|---|---|---|---|----|----|
| No. in group | 53 | 37 | 25 | 20 | 13 | 6 | 6 | 5 | 2 | 1 | 4 | 1 |

(3) *Presenting Symptoms*

| | Primary Symptom | Second Symptom |
|----------------------------|-----------------|----------------|
| Lower abdominal pain | 90 | 19 |
| Menorrhagia | 35 | 41 |
| Abdominal mass | 22 | 12 |
| Infertility | 17 | 8 |
| Other | 2 | 15 |

(4) *Methods of Treatment*

A. OPERATIVE—

| | |
|---------------------------------------|----|
| Total abdominal hysterectomy | 87 |
| Subtotal abdominal hysterectomy | 2 |
| Vaginal hysterectomy | 1 |
| Abdominal myomectomy | 24 |
| Vaginal myomectomy | 5 |

B. CONSERVATIVE—

| | |
|--------------------------------------|----|
| Antibiotics | 15 |
| Blood, haematinics, etc. | 5 |
| No treatment | 6 |
| Refused operation | 15 |
| Failed to return for operation | 7 |

(5) *Size of Tumour*

| Compared with size of pregnancy in weeks | 8-10 | 11-14 | 15-18 | 19-22 | 23-26 | 27-32 | 32+ |
|--|------|-------|-------|-------|-------|-------|-----|
| No. in each group | 21 | 38 | 50 | 24 | 13 | 7 | 5 |

(6) *Bilharziasis:*

Of 75 hysterectomy specimens in which the cervix was examined 14 showed bilharziasis. The cervixes in these cases were macroscopically normal and we believe the finding of ova to be an incidental finding of no great gynaecological significance.

(7) *Infection:*

In 103 cases definite evidence of infection was present as shown either at operation or clinically with fever, tenderness and adnexal masses.

In a further 12 cases there was evidence of minimal infection.

In 31 cases there was no evidence of infection.

In 19 cases there was insufficient information in the case notes to exclude the possibility of infection.

At Operation — Of the 113 cases subjected to laparotomy 81 showed marked evidence of infection, 13 showed slight evidence and 19 showed no evidence of infection. Of the 81 cases showing marked infection 7 had pyosalpinges, 30 had hydrosalpinges and 44 had multiple adhesion with the tubes and ovaries stuck down on the posterior wall of the uterus.

(8) *Anaemia:*

In 115 of the 167 cases there had been either an increase in menstrual flow or prolongation of the periods. Forty three patients had a haemoglobin of less than 8.5 g./100ml.

| | | | | | | |
|---------------|------|--------|--------|--------|---------|-------|
| Haemoglobin | 3 g. | 3-5 g. | 5-7 g. | 7-9 g. | 9-11 g. | 11.0+ |
| No. in groups | 1 | 6 | 16 | 28 | 47 | 70 |

DISCUSSION

The Occurrence of Fibroids at a Relatively Early Age

As will be seen from the series, 45 cases out of 167 (26.9 per cent.) occurred in the 30 and under age group and 82 (49.1 per cent.) in the 35 and under age group. The frequent occurrence of fibroids, especially in young patients, appears to be a racial characteristic of the negro. It would appear that the race is particularly prone to produce fibrous tissue, since keloid scars are also very common. It has been suggested that this ability to produce fibrous tissue may protect the negro against prolapse which is so rarely seen here.

The Frequent Association of Pelvic Infection

One hundred and fifteen of the 167 cases showed evidence of past or present infection. It is therefore not surprising to find that 53 patients had borne no children and a further 37 had only one; bearing children is of paramount importance to the African women and it is reasonable to believe that in no case was any method used to prevent conception.

Is there a particular relationship between infection and fibroids? Pelvic infection is very common here, but the incidence in this group of patients is out of all proportion to the rest of the population. Jeffcoate (1967) states that the general view is that the uterus which is deprived of pregnancies consoles itself with myomata. Tubal blockage from infection is by far the most common cause of infertility here, so perhaps the course of events in many of these patients is infection, tubal blockage, infertility and then fibroids. Possibly also the venous congestion associated with inflammation encourages the growth of fibroids. It is also of interest that in three cases there was evidence of pelvic tuberculosis, another condition associated with infertility.

Ninety of the 167 patients (53.9 per cent.) gave pain as their primary symptom. Fibroids are normally not painful, but may become so when undergoing degeneration or infection or when they are very large and producing pressure symptoms. In most cases in this series pain was probably due to the associated pelvic infection.

though in some cases pain was certainly due to the very large size of the mass.

In patients where the normal menstrual cycle is disturbed, a curettage should be performed before hysterectomy to exclude carcinoma of the corpus, though this is a very rare condition in the Rhodesian African. Curettage may cause an exacerbation of quiescent infection. Therefore the patient should be sent home after the curettage and arrangements made to return some weeks later. The alternative is to perform curettage and proceed immediately to hysterectomy. In most cases a decision can be made on the macroscopic appearance of the curettings. If they appear normal, then it is safe to proceed to hysterectomy, as carcinoma is unlikely to be present. If they appear abnormal, then it is wiser to defer hysterectomy until a histological report is available.

The high incidence of infection complicating our cases has made the operation of hysterectomy difficult and potentially hazardous. There are some important points in the management of such cases that warrant emphasis.

The Relationship of Fibroids to Hypertension

Essential hypertension is a common finding in the middle-aged African woman. We have seen a number of patients who have had hypertension of the order of 170/110 for several days before operation, who have become completely normotensive after operation. The possible explanations are that an upset in hormones is responsible for both fibroids and hypertension, or that pressure on the ureters leads to unilateral renal disease and hypertension.

TREATMENT

Surgery is not necessarily the treatment of choice in every case. Where the symptoms are not severe and the menopause near, treatment with iron preparations, and frequent observation is satisfactory. When infection and anaemia are present these must be treated first. It is our experience that many patients who agree to operation in the first instance will refuse subsequently when antibiotics and blood transfusion have relieved their initial symptoms.

As there is a very real danger in these cases of precipitating cardiac failure by overloading the circulation with transfusion of whole blood, we make the following recommendations. Where the haemoglobin is below 9 g./100 ml. we transfuse slowly with packed cells. Where it is below 6 g./100 ml. we give one unit of packed cells per day with an intramuscular injection of 40 mgm. of Frusemide. If the haemoglobin is below 3.5 g./

100 ml. or the patient is already in cardiac failure we carry out an exchange transfusion using the method of Fullerton and Turner (1962).

In all these cases of severe anaemia we wait for two weeks after transfusion has brought the haemoglobin level to 11.5 g./100 ml. before embarking on major surgery.

Operative

Infection was the major pre-operative problem. A number of patients were admitted because of the concomitant pelvic infection, and treated with antibiotics and bed rest.

When elective surgery is indicated it is wise wherever possible to first control any pelvic infection and then to wait about two or three weeks before operating. In a few cases where there have been large co-existent pyosalpinges we have performed major surgery after localising the main infection by antibiotic therapy.

In a few cases it has been necessary to use a variety of antibiotics to control a virulent pelvic infection in the pre-operative phase. This has produced problems in the post-operative period as organisms have by then become resistant to available antibiotics and post-operative infection becomes difficult to control. Wise selection of initial antibiotic therapy is therefore of importance.

The routine pre-operative investigations consisted of haemoglobin estimation, midstream urine examination for pus cells and bacteria, cervical cytology and chest x-ray. In a few cases where the fibroids were large or in such a place that the ureters might have been displaced an intravenous pyelogram was performed.

Most of the younger patients with fibroids will fall into one of three groups; the first group is where hysterectomy is the obvious choice of operation and the patient agrees. The second group is where infertility is the main problem, the tubes are patent and myomectomy is the correct procedure. The third group is where there is no possibility of pregnancy but the patient is anxious to retain menstrual function. In such cases we are often prepared to do a myomectomy and bilateral salpingectomy regarding such conservative surgery as being in the patient's all round interests. Careful preparatory explanations must be given to all patients since so many believe that with the loss of the uterus they will be unable to participate in sexual activities.

Total abdominal hysterectomy was the operation most frequently performed. Because of the size of the tumours (49 out of 167 [29.0 per cent.] being larger than an 18 week pregnancy), and the

degree of infection in so many cases, most of the operations were not easy. The two guiding principles that we employ are firstly to restore normal anatomy by dividing adhesions and preliminary dissection and secondly to confirm the position of the ureters by palpation or direct vision at each stage of the operation.

(A) Restoring Normal Anatomy

Adhesions between the uterus, bowel and omentum are separated, with care taken to ligate omental pedicles. The rectum is often adherent to the posterior wall of the uterus and requires careful dissection. The ovaries and tubes in the presence of infection become plastered to the uterus. Blunt dissection with the fingertips usually frees the adherent ovary and tube but care must be exercised as it is not difficult to avulse the infundibulo-pelvic ligament. The operation should not proceed until the normal anatomy has been satisfactorily restored, otherwise vital structures will be damaged later in the operation.

(B) Confirming the Position of Ureters

Crichton (1965) in discussing 45 cases of damage to the ureter at operation shows how the ureter becomes hitched up above the utero-sacral ligament in cases of infection. He recommends palpation of the utero-sacral ligaments and if they are found to be thickened from infection this is a warning sign that the ureter may be displaced. The ureter is defined immediately after the broad ligament is opened and before any further clamps are placed. The exact position of the ureter is confirmed by palpation of the structures in the base of the medial leaf of the broad ligament. Where there is difficulty in defining the ureter it should be traced down from the pelvic brim. After opening the layers of the broad ligament and defining the ureter, the posterior leaf of the broad ligament is cut next to the uterus until the ureter can be deflected laterally. Only then is the uterine artery clamp positioned. Further confirmation of the position of the ureter is obtained before each clamp is placed.

In two instances a subtotal hysterectomy was performed because of difficulty at operation. In each of these cases the cytological smear was Grade 1. Although total hysterectomy is the operation of choice, a subtotal may in certain circumstances be safer for the patient. For example where there is dense cellulitis around the cervix, subtotal hysterectomy can be performed and then the cervix "cored" out. Though some lateral cervical tissue is left behind, the area where carcinoma is most likely to arise is removed.

We have found advantage in draining the vaginal vault in cases where the operative procedure

has been extensive or when there has been evidence of chronic infection. The vault is left open sufficiently to allow a corrugated rubber drain to be inserted into the vagina. This prevents the development of a vault haemotoma and can be removed after 48 hours.

In 24 cases abdominal myomectomy was performed. We agree with Pinkerton and Stewart (1967) that no patient should ever be promised beforehand that she will certainly have a myomectomy rather than a hysterectomy, as the surgeon must be free to use his discretion.

SUMMARY

A series of 167 Rhodesian African women with uterine fibroids are reviewed. An analysis is made of their age, parity, presenting symptoms and method of treatment. There is a very high incidence of concomitant pelvic infection in these cases which adds greatly to the hazards of surgery. The particular safeguards which are important when doing an abdominal hysterectomy are emphasised.

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