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AUDIT OF LEIOMYOMA UTERUS AT KHYBER TEACHING HOSPITAL PESHAWAR

Shamshad Begum, Sameera Khan

Department of Obstetrics and Gynaecology, Ayub Medical College & Teaching Hospital, Abbottabad

Background: Fibroid is the commonest tumor of the reproductive tract and frequently encountered problem in gynecological practice. This study was carried out to observe the frequency of fibroids in relation to age, parity and clinical manifestations along with a critical review of its management. **Methods**: This study was carried out over a period of one year from 1st January to 31st December 2000 in Gynae "A" unit of Khyber teaching hospital, Peshawar. All patients presenting with fibroid uterus were included in the study. Data collection included age, parity, menstrual pattern, presenting symptoms, medical and surgical treatment history. Diagnostic criteria were clinical and ultrasonography. Evaluation of medical treatment and surgery were carried out. Management outcome of minimal invasive surgery was also observed. **Results and Conclusion:** Total 146 cases were observed. Greater frequency was found in late reproductive and perimenopausal years (65.7%). There were 34.2% cases in reproductive age group. Majority was multiparous (72%) and 28% were nulliparous. Infertility was noticed in 16%. Myomas were mostly symptomatic (70%). Menstrual symptoms were commonest (81.5%), pain was second common symptom (27.3%). About 24% presented with abdominal mass and hyaline degeneration were in 50% of cases. Leiomyomas were multiple in 63.1% and commonest variety was interstitial (60.4%). Familial factor noticed in 5.4%, clinical diagnosis was made in 58.2% of cases, while ultrasound was used in 40.4% of patients, conservative treatment was given in 37.6% including medical therapy (8.2%), Surgery was performed in (62.3%). .Myomectomy (10.2%) and hysterectomy was carried out in 52.05%. Minimal invasive surgery was not possible in our set up.

KeyWords: Leiomyoma, menorrhagia, degenration, myomectomy, hystrectomy, Fibroid uterus

INTRODUCTION

Leiomyomas are the commonest tumors in female genital tract and in the body as a whole. These benign tumors of smooth muscles occur in 20-30% females of reproductive age group[1] and tend to be symptomatic. Their growth is considered to be dependent upon estrogens excess,[2] as leiomyomas contain more estrogen receptors than normal myometrium[3,4] and they usually regress after menopause.

They are asymptomatic in more than 50% of cases, the most important clinical manifestation is menorrhagia (in 30% of cases), Dysmenorrhoea, abdominal pain, mass, pressure symptoms, infertility and repeated miscarriages may be the presenting symptoms. Bimanual pelvic examination is more revealing where uterine size, consistency, contours and mobility can be easily assessed. Ultrasonography is a simple diagnostic modality for leiomyomas.[5] Hysterosalpingogram, magnetic resonance imaging, (MRI) computed tomography, hysteroscopy and endohyesterosonography are other important diagnostic aids.[6,7]

Management is either conservative or surgical. Conservative treatment is used where myomas are asymptomatic, not leading to complications and in menopausal patients with the hope of spontaneous regression. Surgical treatment includes hysterectomy, myomectomy and minimally invasive surgery. Hysterectomy is the traditional surgical treatment for leiomyomas. Myomectomy involves removal of myoma while conserving the uterus for future reproductive capability. It gives good results and 50% pregnancy rate.[8] While symptoms improvement is 75-80%.[9] The relative morbidity of myomectomy has been reported greater than hysterectomy[8], specially intraperitoneal bleeding and febrile morbidity. Recurrence rate of leiomyoma is 30% after myomectomy.[10] New techniques involve shorter and comfortable recovery, less disfigurement, short hospital stay and financial savings. These are laparoscopic myomectomy, hysteroscopic submuc-ous myomectomy and myoma coagulation. Hystero-scopic resection and myoma coagulation are performed as out patient procedures.

The alternative of surgery is medical treatment e.g. Gonadotrophin releasing hormone analogues (GnRHa). A 20-50% decrease in myoma size occurs within three months treatment,[11] but due to reversal of tumor size to pre treatment size after stopping therapy and post menopausal symptoms has limited wide spread use of GnRHa analogues. The objectives of this study were to observe the frequency of fibroid in relation to age and parity, clinical manifestations and critical review of its management.

MATERIAL AND METHODS

This study was carried out in Gynae 'A' unit of Khyber teaching hospital, Peshawar. All cases of leiomyoma uterus encountered between 1st January and 31st December 2000 were included in this study. A total of 146 women with diagnosis of leiomyoma were seen. Detailed history and clinical examination was performed in all cases. About 100 of those were admitted through out patient clinic and rest were reassured or given medical treatment. Data collection included age, parity, menstrual pattern current and previous, presenting symptoms, medical and surgical history. Diagnostic criteria were based on clinical examination and ultrasonography. Those put on medical therapy were followed by serial ultrasonic measurements of fibroids. Those admitted in ward were either given conservative treatment where myomas were associated with pregnancy or subjected to surgical treatment. All routine investigations and preparations were carried out. Myomectomy was performed in cases where fibroids were the cause for infertility while few other patients were advised to take a chance for conception. Husband semen analysis and tubal patency were checked in all cases where myomectomy was performed. After surgery all the removed leiomyomas and uteri with or without adnexae were examined macroscopically and were sent for histopathology as well. Morbidity was assessed in all cases and all were followed in out patient clinic later on.

RESULTS

Table-1: Symptoms (n=146)

Symptoms	No of Cases	%
Menstrual abnormality	**119**	**81. 5**
a. Menorrhagia	52	35.6
b.Intermenstrual bleeding	19	13.00
c. Continous bleeding	8	5.40
d Dysmenorrhoea	40	27.30
Postmenupausal bleeding	3	2.05
Post coital bleeding	6	4.10
Blood stained discharge	3	2.00
Pain	40	27.30
Pressure symptoms	26	17.00
Mass abdomen	36	24.00
Urinary retention	1	0.60
Infertility	24	16.10
Pain associated with pregnancy	6	4.10

A total of 146 cases of leiomyoma uterus were seen during the study period. The greater frequency was found between 30-50 years age group (50 cases 34.2%). The majority of patients were parous 105 cases (72%) and perimenopausal. Nulliparous were 41 cases (28%). The familial frequency of leiomyoma was 5.4%. This could be coincidental finding due to common nature of leiomyomas. The frequency of symptomatic myomas was 70% while asymptomatic were 30% this means majority present with symptoms. The symptoms have been summarized in table-1. The rest of results have been summarized in tables2-6.

Table-2: Number and types of fibroids

No. of fibroid	No. of cases	%
Single	38	36.8
Multiple	65	63.1
Type of fibroid		
Interstitial	55	60.4
Subserous	7	7.6
Submucous	20	21.0

Fbroid Polyp	9	9.8

DISCUSSION

Multiparous patients were found to have fibroids more frequently than nulliparous in their perimeno-pausal years which shows their characteristics slow growth rate. Infertility with leiomyoma is a definite factor in 2-10% of cases.[12] Which is quite comparable with our study where infertility was found to be 11%.

The most common manifestation was menorrhagia. Increased vascularity, altered uterine contractility and increased endometrial surface area lead to excessive blood loss. A 30% incidence of abdominal pain is reported[13] due to degenerative changes. Our observation also revealed abrupt pain of severe intensity due to degenerative changes among fibroids. Carneous dgeneration occurs in 8% of tumors with pregnancy.[14] Hyaline degeneration was commonest degeneration noticed and reported incidence is 60 %.[15] Calcification was found in subserosal myomas in patients well beyond menopause. Degeneration usually occurs in old mature tumors which needs careful evaluation to rule out malignant degeneration.

Diagnosis of myomas was mostly clinical because of characteristic nature of tumor. Ultrasonography is the most useful confirmatory method with 80% accuracy. Computed tomography and Magnetic resonance imaging can not be used as routine tests because of high cost. Regarding management of fibroids, expectant management in asymptomatic, incidentally diagnosed and menopausal patients was useful but watchful waiting requires frequent consultations and follow-up with ultrasonography.

Non-steroidal anti-inflammatory drugs (NSAIDS) decrease menstrual flow by 20 to 30 % in menorrhagia[16] but response is less consistent with myomas as our study revealed effective relief of dysmenorrhoea and 20% relief of menorrhagia. So NSAIDS can help where conservative management is selected.

Table-3: Secondary changes in leiomyomas

Type of degeneration	**No. of cases**	**%**
Hyaline degeneration	46	50
Cystic degeneration	5	5.4
Septic degeneration	8	8.7
Carneous degeneration	4	4.0
Calcification	6	6.5
Myxomatous degeneration	Nil	0.0
Sarcomatous degeneration	Nil	0.0

Table-4: Method of diagnosis

Method	**No. of cases**	**%**
Clinical examination	85	58.2
Ultrasonography	59	40.4
Laproscopy	2	1.3
per-operative	3	2.0

Table-5: Management of leiomyomas

Type of management	No. of cases	%
Conservative	55	37.6
a. Re-assurance	43	29.0
b. Medical therapy	12	8.2
Surgical procedure	91	62.3
Myomectomy	15	10.2
Hystrectomy	76	52.05

Table-6: Post operative morbidity

Type of morbidity	No of cases	%
Total Morbidity	28	30.7
a. Fever	8	28.0
b. Wound sepsis	2	7.1
c. Urinary tract infection	10	35.7
d. Anemia	3	10.7
e. Prolong hospital stay	5	17.8

The role of contraceptives in controlling menorrhagia with fibroids is satisfactory[16] but degeneration and infarction can occur therefore careful medical supervision is need. The use of progesterone in our study was limited to patients with excessive bleeding awaiting surgery as recent studies suggest role of progesterone in pathogenesis of myomas.[17,18] Our experience also supports increase in myoma size with progesterone. Danazole decreases myoma size with three months therapy[16] but our study didn't reveal satisfactory decrease in myoma size with three months Danazole and ultrasound follow-up. Its role in myoma regression has been inconsistent and lacks patients satisfaction because of androgenic side effects.

GnRha cause 30 to 50 % reduction in myoma size[16,19] by producing hypoestrogenic state and cause pseudomenopause. Reversal of myoma size to its pretreatment size (88%) within three months of discontinuation therapy is a major disadvantage.[16] Our experience with GnRha is less satisfactory because of its high cost, poor follow-up concept of patient and inability to wait till satisfactory improvement occurs.

Symptomatic myomas usually need surgery. Myomectomy is recommended in reproductive age where fertility is mainly concerned. It gives 50% pregnancy rate[20] and 75% subjective relief of menorrhagia. Though myomectomy is associated with higher morbidity than hystrectomy[21] but by experienced surgeons it compares favorably to hysterectomy.[22] Our study found it to be a safe procedure and its morbidity was equal to that of hysterectomy. Febrile morbidity was found to be surprisingly low and overall transfusion rate was not higher than other major procedures. Mechanical haemostasis with tourniquet was quite satisfactory. Laproscopic myomectomy is less invasive but technical difficulties, hemorrhage, perforation, fluid imbalance, prolong operating time and failure to complete proposed surgery disfavors it as routine procedure. In our setup it has not gained value as cosmetic surgery as our patients are not cosmetically conscious and enough cosmetic safety of Pfannensteil incision is better then multiple portals of entry for laproscopic surgery. Satisfactory closure of serosal surface is difficult laproscopically[23] which leads to post-operative adhesions. Complications rate is 31%[24] the substantial benefit of laproscopic surgery are reduced postoperative pain, faster recovery and short hospital stay but myomas more than six cm in size and more than four in number require abdominal approach.[25] Hyesteroscopic is less invasive but hazardous due to limited exposure and difficulty in controlling bleeding. It cures menorrhagia in submucous myomas unto 90 % and pregnancy rate of 64 % is reported.

Our audit reveals preference of abdominal myomectomy as compared to endoscopic procedures because importance of adequate exposure can not be overemphasized and it enables surgeons to feel for smaller inconspicuous myomas that might otherwise be missed. Hysterectomy was found to be treatment of choice for perimenupausal patients and was found more effective to give complete symptom relief. Prevention of carcinoma by removing cervix and endometrium and easing future estrogen replacement therapy without endometrial cavity monitoring favored hysterectomy as management option for myomas. Although hystrectomy has morbidity rate of 42/100[20] but improvement of general heath, correction of anemia, prophylactic antibiotic therapy, optimum sterilization, good homeostasis, good analgesia and early mobility greatly reduces its morbidity. Our morbidity with hysterectomy was quite low than reported rate. Depression, anxiety and sexual dysfunction can occur with hysterectomy which can be avoided by proper pre-operative counseling, good understanding of symptoms and medical advice.

CONCLUSION

Leiomyomas are found frequently in late reproductive and perimenupausal years. Ultrasonography is most simple and effective diagnostic tool. Expectant treatment is only helpful in asymptomatic myomas. Medical treatment does not give complete cure and gives partial symptom relief till definite treatment is decided. The definite treatment is surgery. Conventional surgery though old fashioned gives direct approach and good results.

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Address for Correspondence:

Dr. Shamshad Begum, Assistant Professor, Department of Obstetrics and Gynaecology, Ayub Medical College & Hospital Complex, Abbottabad.