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Study of Socio-Economic & Clinical Profile of Fibroids Undergoing Surgical Treatment in a Tertiary Care Hospital

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Abstract: Uterine leiomyomas (fibroids) are the commonest benign tumors in women. Leiomyomas are the most common tumors in women of reproductive age. Objective of this study is to assess socio-economic & clinical profile of fibroid cases undergoing surgical treatment. This cross sectional prospective study was conducted at Department of Obstetrics and Gynecology in DVVPF's medical college hospital, Ahmednagar, Maharashtra, over a period 4 years from June 2013 to may 2017.In this study 400 cases of uterine fibroid who were admitted & fulfilling inclusion criteria were included. The incidence of fibroid uterus was 12.34 % of all gynaecological admission. Most cases were seen in 41-45 years age group (47%),followed by 28% in 36-40 years age group. Parity ≥3 accounted for 83.25 % of all cases. Majority of cases were from lower socioeconomic class (53%), followed by lower middle class (29.75%). Most common presenting symptom was menorrhagia 45.25 %, followed by dysmenorrhoea (18 %). Most of the patients were having interstitial type of fibroid (66.5%). Uterine size was between 10-14 weeks (40.75%), followed by 6-10 weeks size (33.5%). Total abdominal hysterectomy with bilateral salpingo oophorectomy (TAH with BSO) was the most common surgical procedure done (37.75%). Post operative pyrexia was the most common complication seen post operatively (7%), followed by urinary tract infections (6.25%).Wound dehiscence was seen in 5 % of all cases. Uterine fibroid are commonly seen in women of reproductive age group and commonly present with menstrual disorders and may be associated with pelvic pain, infertility, pressure symptoms. The treatment is hysterectomy and myomectomy.
Keywords: Uterine Leiomyomata, Menstrual disorder, Hysterectomy, myomectomy.

INTRODUCTION

Uterine leiomyomas (fibroids) are the commonest benign tumors in women [1]. Leiomyomas are the most common tumors in women of reproductive age[2]. They are most commonly multiple & asymptomatic. Several etiological factors have been suggested, with subtle variations in clinical presentation. The incidence of uterine fibroid tumours increases as woman grows older and they may occur in more than 30 percent of woman between 40 to 60 years of age [3]. It is benign, monoclonal tumour of the smooth muscle cells of the myometrium. The incidence is about 30% to 70% according to different diagnostic methods [4,5].

Uterine fibroids are common in nulliparous or relatively infertile women, African population & it is often associated with excessive oestrogen stimulation.

Fibroids may occur in any of the three layers of the uterus, could be intramural, submucosal and serosal. They can occur at unusual locations such as the uterine cervix or within the layers of the broad ligament [6].

Woman with fibroids can be asymptomatic or may present with menorrhagia, pelvic pain with or without dysmenorrhoea or pressure symptoms, subfertility and recurrent pregnancy loss [7]. Diagnosis of fibroid is mainly clinical & can be confirmed by ultrasonography [8, 9]. Management of fibroid includes expectant management, medical management, myomectomy, and hysterectomy, embolotherapy depending on age, parity, location & presentation.

Objective of this study is to assess socio-economic & clinical profile of fibroid.

MATERIALS & METHODS

This was a cross sectional prospective study, carried out in Obstetrics and Gynecology Department of DVVPF's medical college & hospital, Ahmednagar, Maharashtra, over a period 4 years from June 2013 to may 2017.In this study 400 cases of uterine fibroid

who were admitted in this period were included after fulfillment of inclusion criteria.

Inclusion criteria

- Age 20-50 years
- Symtomatic patients
- Patients required operative procedure

Exclusion criteria

- Postmenopausal patients
- Asymptomatic patients
- Pregnancy

Each case was scrutinized for socio-economic, clinical profile, surgical procedure underwent and other necessary information. Data were collected in pre-designed form. Data were expressed as number & percentage in tabular form. Appropriate statistical analysis was done to interpret the results. Observations from this study were compared with other similar studies.

RESULTS

Table-1: Incidence of fibroid uterus requiring operative procedure

Total gynaecological admissions	Admissions due to fibroid requiring operative procedure	Percentage
3239	400	12.34

During the study period total number of admission was 3239.Out of which 400 fibroid cases were managed surgically. The incidence of fibroid uterus requiring operative procedure was 12.34 % of all gynaecological admission.

Most cases were seen in 41-45 years age group (47%),followed by 28% in 36-40 years age group (Table-2).

Table-2: Age wise distribution of cases

Age group(years)	Number of patients	Percentage
20-25	11	2.75
26-30	29	7.25
31-35	10	2.5
36-40	112	28
41-45	188	47
46-50	50	12.5
Total	400	100

Table-3: Parity wise distribution of cases

Parity	Number of patients	Percentage
Nullipara	18	4.5
Para 1	20	5
Para 2	29	7.25
Para 3	159	39.75
≥ para 4	174	43.5
Total	400	100

Majority of cases were having parity ≥3 i.e.333 cases (83.25 %).Only 18 cases (4.5%) were nulliparous (Table-3).

Majority of cases were from lower socioeconomic class (53%), followed by lower middle class (29.75%) (Table-4).

Table-4: Socioeconomic class wise distribution of cases

Socioeconomic class	Number of patients	Percentage
Upper	11	2.75
Upper middle	13	3.25
Middle	45	11.25
Lower middle	119	29.75
Lower	212	53
Total	400	100

Table-5: Distribution of cases according to clinical presentation

Clinical presentation	Number of cases	Percentage
Menorrhagia	181	45.25
Metrorrhagia	34	8.5
Dysmenorrhoea	72	18
Lump in abdomen	30	7.5
Infertility	20	5
Pain /discomfort in abdomen	96	24
Pressure symptoms	26	6.5

Most common presenting symptom was menorrhagia (45.25 %), followed by dysmenorrhoea (18 %).Lump in abdomen was seen in 7.5% of all cases. Infertilty was seen in 5 % cases (Table-5).

Table-6: Location of fibroid

Location of fibroid	Number of patients	Percentage
Interstitial	266	66.5
Submucus	61	15.25
Subserous	30	7.5
Cervical	5	1.25
Broad ligament	6	1.5
Fibroid polyp	11	2.75
Mixed	96	24

Most of the patients were having interstitial type of fibroid (66.5%).Submucus & subserous fibroids were seen in 15.25% & 7.5% cases respectively.11 cases were due to cervical & broad ligament fibroid.

Table-7: Distribution of cases according to uterine size

Size of fibroid (weeks)	Number of patients	Percentage
6-10	134	33.5
>10-14	163	40.75
>14-18	62	15.5
>18-24	28	7
>24	13	3.25
Total	400	100

Most of the patients were having uterine size between 10-14 weeks (40.75%), followed by 6-10 weeks size (33.5%).10.25% cases were having fibroid size more than 18 weeks.

Table-8: Modality of surgical treatment given

Operation	Number of cases	Percentage
Total Laparoscopic Hysterectomy(TLH)	52	13
Laparoscopic Assisted Vaginal Hysterectomy (LAVH)	18	4.5
Total Abdominal Hysterectomy (TAH)	112	28
Total Abdominal Hysterectomy with Salpingo- oophorectomy	151	37.75
Subtotal hysterectomy	2	0.5
Vaginal hysterectomy	34	8.5
Myomectomy	20	5
Polypectomy	11	2.75
Total	400	100

Total abdominal hysterectomy with salpingo-oophorectomy was the most common surgical procedure done (37.75%), followed by Total abdominal hysterectomy (TAH) done in 28 % cases.17.5 % cases underwent laparoscopic procedure.20 cases (5%) required myomectomy.

Table-9: Postoperative complications

Complication	Number of cases	Percentage
Pyrexia	28	7
UTI (Urinary Tract Infections)	25	6.25
Paralytic ileus	12	3
Wound dehiscence	20	5
Blood transfusion due to intra-operative blood loss	14	3.5
Blood transfusion reaction	4	1
Post dural puncture headache	4	1
Others	12	3

Post-operative pyrexia was the most common complication seen post operatively (7%),followed by urinary tract infections (6.25%).wound dehiscence was seen in 5 % of all cases.14 cases (3.5%) required blood transfusion post-operatively due to intra operative blood loss. Blood transfusion reactions were seen in 4 cases.

DISCUSSION

During the study period total number of admissions was 3239. Out of which 400 cases were of fibroid managed surgically. The incidence of fibroid uterus was 12.34 % of all gynaecological admission. This incidence is more than that of Verma *et al.* (6.8%) [10], Okogbo *et al.* (9.3%) [11], Rinku Das *et al.* (9.3%) [12].

In present study, most cases were seen in 41-50 years age group (59.5%),followed by 31-40 years age group(30.5%). Higher incidence in these age groups was also noted in other studies. Verma *et al.* [10] reported incidence of 42.12 % in 31-40 years & 37.7 % in 41-50 years age group. Rinku Das *et al*. [12] reported incidence of 18 % & 40 % in 30-39 years & 40-49 years age groups respectively .So from all these studies it is evident that incidence of fibroid is higher in third & fourth decade of life.

In our study majority of cases were having parity ≥2 (90.5 %).These findings were consistent with that of seen in study of Verma *et al.* [10], where 88.9 % cases were having parity ≥2.

In this study, most common presenting symptom was menorrhagia (45.25 %), followed by dysmenorrhoea (18 %).Lump in abdomen was seen in 7.5% of all cases. Infertilty was seen in 5 % cases. Similar findings were documented by Okogbo *et al.* [11], where menorrhagia, dysmenorrhoea & metrorrhagia accounted for 30.6 %,18.9% & 17.1% cases respectively. Verma *et al*. [10] also reports menorrhagia as a most common presenting symptom seen in 60.4 % of all cases.

Most of the patients in present study were having interstitial type of fibroid (66.5%). Submucus & subserous fibroid were seen in 15.25% & 7.5% cases respectively.11 cases were due to cervical & broad ligament fibroids. Similar pattern is seen in study of Rinku Das *et al.* [12] who have reported incidence of 62.4%,18.4 %,7.6% in interstitial, submucus & subserous fibroids respectively.

Most of the patients in this study were having uterine size between 10-14 weeks (40.75%), followed by 6-10 weeks size (33.5%).10.25% cases were having fibroid size more than 18 weeks. Verma *et al*. [10] also report similar findings regarding uterine size. In that study 36.9% & 35.2 % cases were having uterine size between 6-10 weeks & 10-14 weeks respectively. Okogbo *et al.* [11] reported maximum uterine size between 13-20 weeks in 74.4 % of cases.

Total abdominal hysterectomy with salpingo-oophorectomy was the most common surgical procedure done (37.75%), followed by Total abdominal hysterectomy (TAH) done in 28 % cases.17.5 % cases underwent laparoscopic procedure.20 cases (5%) required myomectomy. These findings were different from study of Verma *et al.* [10], where total abdominal hysterectomy with bilateral salpingo- oophorectomy was the most common surgery done in 94.8 % of all cases. Verma *et al.* [10] reported myomectomy done in 4.3 % of all cases, which is consistent with our study. Findings in our study were very much dissimilar with study of Okogbo *et al*. [11], where myomectomy was the common operation performed (65.41%). Rinku Das *et al*. [12] reported operation rates of 64 %, 24% & 12% for TAH, myomectomy & LAVH respectively.

Post-operative pyrexia was the most common complication seen post operatively (7%) in our study ,followed by urinary tract infections (6.25%).Wound dehiscence was seen in 5 % of all cases.14 cases (3.5%) required blood transfusion postoperatively due to intra operative blood loss. Blood transfusion reactions were seen in 4 cases. Rinku Das *et al.* [12] documented higher incidence of post operative complications compared with present study, where post operative pyrexia was seen in 12 % ,followed by wound infection (10%), intraoperative blood loss requiring blood transfusion(8%),prolonged hospital stay(6%). Okogbo *et al*. [11] reports complications like postoperative pyrexia (13.5%), blood loss warranting transfusion (12.8%), postoperative anaemia (10.4%),

wound infection (8.7%), vault infection (5.1%) and prolonged hospital stay (4.2%). Other complications recorded were wound dehiscence (2.5%), vesicovaginal fistula (0.3%), ureteric injuries (0.3%), bladder injuries (0.6%), and death (0.2%).

CONCLUSION

Uterine fibroid is commonest benign tumour in female body, mostly asymptomatic. Uterine fibroid are commonly seen in women of reproductive age group. Menstrual complaints are the leading presenting symptoms. The treatment is usually hysterectomy. Myomectomy may be considered choice when family is not complete.

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