International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Sunanda N et al. Int J Reprod Contracept Obstet Gynecol. 2022 Oct;11(10):2705-2708
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20222466

Original Research Article

A five-year retrospective study of cervical fibroids in a tertiary care centre

Sunanda N.*, Sudha R.

Department of Obstetrics and Gynaecology, MMCRI, Mysuru, Karnataka, India

Received: 05 August 2022
Accepted: 02 September 2022

***Correspondence:**
Dr. Sunanda N.,
E-mail: sunanda_n@rediffmail.com

ABSTRACT

Background: Cervical leiomyomas or fibroids are rare benign pelvic tumors. The symptoms vary from urinary retention, frequency, dyspareunia, intermenstrual bleeding, rarely mimicking procidentia or can cause uterine inversion. This study was conducted in a tertiary hospital to find out clinical presentation, prevalence of cervical fibroids.
Methods: This study is a retrospective study where Women ranging from 20 to >60 years age attending gynecology OPD of Cheluvamba hospital tertiary care centre attached Mysuru medical college and research centre, Mysuru for abdominopelvic mass, pain, menstrual abnormalities over a period of 5 years (January 2012 to December 2016) were included the study. Socio-demographic profile, detailed menstrual history, reason for attending hospital and previous treatment taken prior to the hospital visit were recorded. Pregnant women with fibroids were excluded from the study. Parameters like type and size of cervical fibroid, mode of treatment, postoperative morbidities, histopathological reports were studied and interpreted in this study.
Results: In this study total 20 women who presented with menorrhagia or with abdominopelvic mass had cervical fibroid. Of 20 patients 10 (50%) belonged to age group 31-40 years, 9 (45%) patients were of 41-50years age and 1 (5%) patient was >60 years age. The 16 (80%) patients presented with menorrhagia. Metrorrhagia was the commonest menstrual pattern seen in 15 (75%) women. Asymptomatic fibroids with abdominopelvic mass were seen in 4 (20%) women. The size was 12-28 weeks. Polypectomy was done in 1 (5%) woman and abdominal hysterectomy was done in 19 (95%) women. None of the patient had postoperative morbidity or mortality. histopathological reports in 17(85%) showed leiomyoma without degeneration while 3 (15%) cases showed degenerative changes.
Conclusions: Further research is needed to find out biological factors causing fibroids including diet, stress, environmental and racial influences. Routine screening, early detection, increase awareness by early reporting to the hospital will reduces morbidity and improves quality of life socioeconomically.

Keywords: Cervical fibroid, Menorrhagia, Polypectomy, Hysterectomy

INTRODUCTION

The incidence of leiomyoma in the reproductive period is 20%. Only 2% of these arise from the cervix.[1] Cervical fibroids are classified depending on their location as anterior, posterior, lateral and central. They can be further classified as interstitial, subserosal and submucosal polypoid.[2] They may be asymptomatic or present with pressure symptoms like urinary retention or constipation, abdominopelvic mass or menstrual disturbances.

Growth of leiomyoma is dependent on estrogen production, especially continuous estrogen secretion when uninterrupted by pregnancy and lactation, it is thought to be the most important risk factor for the development of myomatous fibroid.[2] Fibroids occurs in 20-40% of women during reproductive age and 11-19% in perimenopausal age.[2]

The site-size-numbers vary from one woman to another. Microscopic as well as giant-size fibroids have been reported in the literature.

Fibroids increase in size as women grow older and cause pressure symptoms and majority needed surgical interventions like hysterectomy or myomectomy.[2] Excision of the cervical fibroid- myomectomy or hysterectomy are a little difficult to handle due to the close proximity of the enlarged cervix to the important structures like the uterine, the ureter, the bladder and the rectum.[3] So, they pose risk of injury and bleeding during surgery due to distorted anatomy. Sometimes, cervical fibroid with degenerative change mimics an ovarian tumor and cause dilemma presenting as lump abdomen.[4] Ultrasound imaging helps in diagnosis but MRI is an important diagnostic tool when in doubt. Frequent visit to hospital for heavy bleeding PV or pressure symptoms, not responding to treatment, have profound negative impact on life emotionally and socio economically. By creating awareness, early detection of tumors and proper guidance for treatment will reduce morbidity and improve quality of health.

METHODS

This is a retrospective observational study for period of 5 years (January 2012-December 2016), where the records of women ranging from 20 to > 60 years who had undergone the management for cervical fibroid were retrieved from medical record section operation theater registers minor ot registers and particular case sheets.

Inclusion criteria

Women between 20 to > 60 years age attending gynecology OPD of Cheluvamba hospital, a tertiary care centre attached Mysuru medical college and research institute, Mysuru for abdominopelvic mass, pain, menstrual abnormalities werte included in the study.

Exclusion criteria

Women with fibroid and pregnancy were excluded from the study.

During the five-year study period between January 2012 to 2016 December, characteristics with respect to Socio-demographic profile, detailed menstrual history, reason for attending hospital and previous treatment taken prior to the hospital visit were recorded. Parameters like type and size of cervical fibroid, mode of treatment, postoperative morbidities, histopathological reports were studied and interpreted in this study. SPSS software was used to analyse the date with respect to relevant clinical information.

RESULTS

In this study of 5years duration, total 20 women who presented with menorrhagia or with abdomino pelvic mass had cervical fibroid.

Majority of them-10 (50%) belonged to age group 31-40 years, 9 (45%) patients were of 41-50 years age and 1 (5%) patient was >60 years age.

Table 1: Age distribution of patients.

Age (Years)	N	Percentage (%)
31-40	10	50
41-50	09	45
>60	01	05

Table 2: Parity.

Parity	N	Percentage (%)
1	01	05
2	16	80
3	03	15

Out of 20 women, most of them-16 (80%) were of parity 2, 3 (15%) women had parity of 3 and more. A 1 (5%) woman was primipara.

Table 3: Various presentation.

Symptom	N	Percentage (%)
Mass per abdomen	01	5
Mass per vaginum	03	15
Bleeding per vaginum	16	80
Bowel and bladder symptoms	Nil	

Majority-16 (80%) patients presented with menorrhagia. Metrorrhagia was the commonest menstrual pattern seen in 15 (75%) women. Abdomino pelvic mass was seen in 4 (20%) women. None presented with bowel and bladder syptoms

Table 4: Duration of symptom.

Duration of symptom (Months)	N	Percentage (%)
6-12	08	40
12-24	09	45
>24	03	15

Out of 20 women, 8 (40%) women had symptoms for duration of 6 -12 months, while 9 (45%) had symptoms for 12-24 months and 3 (15%) had symptoms for >24 months duration.

Table 5: Associated morbidity.

Associated morbidity	N	Percentage (%)
Hypertension	6	30
Diabetes	4	20
Hypothyroidism	2	10
None	08	40

The 12 (60%) 0f 20 women had associated comorbidity. Six (30%) women had hypertension, 4 (20%) women were diabetic and 2 (10%) women had hypothyroidism

Table 6: Location of fibroid.

Type of fibroid	N	Percentage (%)
Anterior	09	45
Posterior	04	20
Lateral	02	10
Central	05	25

Majority were anterior cervical fibroid, seen in 9 (45%) women. Four (20%) women had posterior cervical fibroid. Two (10%) had lateral cervical fibroid while 5 (25%) women had central fibroid.

Table 7: Size of fibroid.

Size of fibroid (centimetres)	N	Percentage (%)
<5	14	70
5-10	06	30

The 14 (70%) women had fibroid of less then 5 cm size while 6 (30%) had cervical fibroid of size of 5-10 cm.

Table 8: Mode of treatment.

Mode of treatment	N	Percentage (%)
Polypectomy	01	05
Myomectomy	00	00
TAH+BSO	19	95

Polypectomy was done in 1 (5%) woman and abdominal hysterectomy was done in 19 (95%) women. None of the patient had postoperative morbidity or mortality.

Table 9: Degeneration in fibroid.

HPR	N	Percentage (%)
No degeneration	17	85
With degeneration	03	15

Histopathological reports in 17 (85%) showed leiomyoma without degeneration while 3 (15%) cases showed degenerative changes.

DISCUSSION

Uterine myoma is the most common indication of hysterectomy. Presence of isolated fibromyoma in cervix with intact uterus is infrequent. Cervical fibroids with excessive growth are uncommon. They can arise from supra-vaginal or vaginal portion of cervix. Supra-vaginal fibroids can be central surrounding the entire cervical canal and lying centrally in pelvis displacing the ureters superiorly.

Pedunculated fibroids arise from endocervical canal or from uterine cavity and protrude through cervix. Sessile cervical fibroids arise from cervical lips of vaginal portion and are rare.[5] Cervical fibroids are rare and can be anterior, posterior, lateral and central. It commonly occurs as a single fibroid but can also multiple and is either interstitial/ subserous. Rarely can it be sub mucosal/ polypoidal.

They can change the shape of the cervix or may lengthen it. If cervical fibroid gets bigger, it may even push the uterus upwards. In some cases, cervical fibroid may grow rapidly and can obstruct the cervix. A cervical fibroid can lead to infertility, urinary retention, urinary frequency, constipation, menstrual abnormalities, dyspareunia, and sometimes post coital bleeding.[6]

Anterior fibroid bulges forward and undermines the bladder while posterior fibroid flattens the pouch of Douglas backwards, compressing rectum against sacrum. Lateral cervical fibroid, starting on the side of the cervix burrows out into the broad ligament and expands it. Their relation to the ureter is important. Wherever the ureter and uterine artery may be in relation to the fibroid, they will always be extracapsular. The knowledge of this fact can turn potentially dangerous procedure into a relatively safe operation. Central cervical fibroid expands the cervix equally in all directions. Upon opening the abdominal cavity, a central cervical myoma can be recognized at once because the cavity of the pelvis is more or less filled by a tumour, elevated on the top of which is the uterus like the Lantern on the top of St Paul's.[7]

These masses can be evaluated by various modalities of imaging such as ultrasonography, computed tomography and MRI. To accurately localize leiomyomata and surgical planning for myomectomy MRI plays a superior role.

The surgical treatment of cervical myomas can be challenging and, therefore, require a great experience and expertise of the surgeon; in fact, the presence of a cervical leiomyoma has been identified as an independent factor affecting operation time in minimally invasive surgery.[8] The surgical risks are related to the position of the cervical leiomyoma in the pelvis; in fact, myomas can be very close to the pelvic organs, anteriorly to the bladder, posteriorly to the rectum and bilaterally to the ureters. The leiomyoma can have close relations with these structures, and they can often be strongly adherent and difficult to separate from them, making difficult the identification of a correct cleavage plane for the surgeon; procedures can be further complicated by more restricted and inaccessible surgical space.[9] Furthermore, cervical myomas, in particular when large, can alter the position of these structures, subverting the anatomy of the pelvis. Indeed, they can shift the position of the ureter, and engorge the uterine artery and vein, resulting in a high degree of difficulty in performing the surgery.[10] The dislocation of the structures associated with restricted surgical access increases the risk of injuries to the pelvic organs as well as a further difficulty to control major bleeding. Another risk of the surgical treatment of cervical myoma is the intraoperative hemorrhage caused

both by the anatomical position that places the cervical myoma adjacent to the arterial and venous uterine vessels and by the neovascularization of the myoma itself.[11] Because it is well known that intraoperative hemorrhage is a significant concern, especially during a myomectomy, various methods were developed to reduce the risk of bleeding.[12] These procedures include the use of preoperative GnRH agonist, tourniquet method, intraoperative injection of vasopressin into the myometrium, and permanent occlusion of the uterine artery. The permanent occlusion of the uterine arteries has been reported to give benefit in reducing hemorrhage during myomectomy as well as achieving a lower rate of disease recurrence; however, it can negatively impact uterine and ovarian function in comparison to the effects of temporary occlusion. Moreover, ligation of the uterine artery can be challenging and sometimes impossible in case of large cervical leiomyomas occupying the entire pelvic cavity and thus causing extremely limited access to the retroperitoneal pelvic space.

A study done by Ferrari et al among 214 women including pregnant women, average age was 39.4 years, in our study majority of patients (50%) in age group of 31-40 years. Chronic pelvic pain and lower back pain found 19 women (14.6%), dysmenorrrhea in 14 (11%), AUB 57 (44%), urinary complaints in 14 women (11%), bulk related symptoms in 26 (20%), asymptomatic in 10 (7.7%). In our study similar results were obtained where 80% presented with vaginal bleeding, 5% presented with mass per abdomen and 15% presented with mass per vaginum.

Out of the 188 (88%) women who underwent surgical intervention, 127 (67.5%) underwent myomectomy, 54 (28.7%) underwent hysterectomy and 7 (3.7%) underwent trachelectomy compared to our study where 95% underwent hysterectomy, 5% underwent polypectomy

Majority of cervical fibroids diagnosed require surgery as the first line of management by skilled gynecologists because of the alteration in the anatomy giving rising to surgical difficulty

CONCLUSION

Cervical fibroids are rare and their management can be quite challenging. They present with varied manifestations posing difficulties in diagnosis and management. Good anatomical and clinical judgment is critical to successful management. Thorough pre-op evaluation and anticipation of operative challenges lead to judicious treatment.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Tiltman AJ. Leiomyomas of uterine cervix: A Study of frequency. Int J Gynaecol Pathol. 1998;17(3):231-4.
2. Munusamy MM, Yadav BB. Epidemiological study of uterine fibroids: our experience from urban Maharashtra. Int J Reprod Contracept Obstet Gynecol. 2017;6(12):5596-601.
3. Kumar S. One-year continuation of postpartum intrauterine contraceptive device: findings from a retrospective cohort study in India. Int J Reprod Contracept Obstet Gynecol. 2016;5(11):4070-72.
4. Garg D. Indian J Appl Res. 2019;9(5).
5. Kumar P, Malhotra N. Tumours of the corpus uteri. In: Jeffcoat"s Principles of Gynaecology. 7th Ed.; Jaypee Brothers Medical Publisher (Pvt.) Ltd. New Delhi. 2008;487-516.
6. Katke RJ, Thakre M, Acharya S. Cervical fibroids with its management and review of literature: an original article. Southeast Asian J Case Report Rev. 2017;6(1):5-9.
7. Swati S, Priyakshi C. Central cervical fibroid mimicking as chronic uterine inversion. Int J Reproduct Contracept Obstet Gynaecol. 2013;2(4):687-88.
8. Del Priore G, Klapper AS, Gurshumov E, Vargas MM, Ungar L, Smith JR. Rescue radical trachelectomy for preservation of fertility in benign disease. Fertil Steril. 2010;94:1910.e5-7
9. Chang WC, Chen S, Huang SC, Chang DY, Chou LY, Sheu BC. Strategy of cervical myomectomy under laparoscopy. Fertil Steril. 2010;10.
10. Giannella L, Mfuta K, Tuzio A, Cerami LB. Dyspareunia in a Teenager Reveals a Rare Occurrence: Retroperitoneal Cervical Leiomyoma of the Left Pararectal Space. J Pediatr Adolesc Gynecol. 2016;29:e9-11.
11. Liu WM, Wang PH, Chou CS, Tang WL, Wang IT, Tzeng CR. Efficacy of combined laparoscopic uterine artery occlusion and myomectomy via minilaparotomy in the treatment of recurrent uterine myomas. Fertil Steril. 2007;87:356-61.
12. Kilpatrick CC, Adler MT, Chohan L. Vaginal Myomectomy in Pregnancy: A Report of Two Cases. South. Med J. 2010;103:1058-60.

Cite this article as: Sunanda N, Sudha R. A five-year retrospective study of cervical fibroids in a tertiary care centre. Int J Reprod Contracept Obstet Gynecol 2022;11:2705-8.