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Vaginal Myomectomies in Patients with Pedunculated Myomas

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Abstract: ***Myomas or the fibroids are the commonest benign neoplasm of the uterus. It arises from the smooth muscle of the uterus or from vessel wall. They are commonly seen in women of reproductive age group. Majority of the fibroids are usually asymptomatic but some may cause symptoms depending on location, size, number and extent. They may cause variety of symptoms such as dysmenorrhea, dyspareunia, difficulty in micturition or irregular bleeding P/V. Ultrasound remains the main stay in diagnosing myomas. There are various treatment modalities available depending on location, size, extent and parity status. Vaginal myomectomy is one such approach discussed here.***

Keywords: Pedunculated myoma, vaginal myomectomy

1.Introduction

Myoma (also called fibroids) are benign tumours of uterine in origin composed partly of muscle tissue. According to different sites of myoma, it can be divided into the following three types: Intramural, submucosal and subserosal. It is a common gynecological disorder occurring in 20-50% of women, of late reproductive age. Myomas may bleed, become infected, block the urinary tract, cause dyspareunia or prolapse into vagina. Prolapsed myomas are smooth, benign tumours which are closer to organs such as bladder, ureter and rectum and are attached to the uterine wall by a stalk-like growth called a pedicle. Ultrasound (TAS & TVS) and MRI are the effective diagnostic tools for assessment of myoma and plan the management accordingly. Myomectomy or hysterectomy is indicated in cases of persistent bleeding with infertility despite medical therapy.

Case 1

A 30 yr, female, para1 living1 (previous FTND) with came c/o post coital bleeding since 6 months, with difficulty in micturition aggravated since 3 weeks with USG s/o-4.5 X 4.2cm submucosal fibroid in endocervix (figure2) with sagittal MRI s/o ~5X4cms intracavitatory pedunculated fibroid. Patient was anaemic with Hb 7 g%. Per speculum and per vaginal examination showed approximately 4X4 cm mass impacted into the cervical canal (figure1) with bleeding ++. Patient was transfused 1 pint PCV, Inj. Tranexamic acid and IV antibiotics course given and posted for vaginal myomectomy.

Intraoperatively, fibroid with capsule delivered, spontaneous enucleation of capsule occurred, 2 Kocher's clamps applied at the pedicle (figure3), myoma excised by twisting traction forces, followed by taking haemostatic sutures at the stump.

Histopathological report suggestive of Leiomyoma measuring 4 X 3.5 X 3 cm surrounded by endometrial tissue with inflammatory cells.

Figure1: showing Myoma

Figure2: USG showing impacted in cervix 4.5x4.2cm submucosal fibroid

Figure3: Intraoperative

Figure4: Showing excised image where pedicle is held myoma with psedocapsule with Kocher's, myoma with Alli's forceps

Case 2

A 37 year, female, Para3 Living3 (previous all FTND), came with c/o menorrhagia since 1 year with no known co morbidities. Diagnostic D&C was done s/o proliferative phase of endometrial tissue; PAP smear done s/o severe inflammatory cells with NILM; USG (TVS) done s/o 4X3.4cm lesion in cervical canal with vascular pedicle connecting into endometrium (figure6). Per speculum and per vaginal examination revealed ~ 4X3cm mass protruding through cervix and vagina extending upto internal os (figure5), which bled **on** touch and could be digitally reducible.

All blood parameters normal. Patient posted for vaginal myomectomy. Intraoperatively, fibroid held with Allis forceps and effortlessly excised by traction force. Finger inserted to look for pedicle and residual tissue followed by taking haemostatic sutures at the base.

Histomorphological features suggestive of leiomyoma ~4.5X3.5X2cms surrounded by edematous fibrous tissue with focal areas of inflammation and necrosis.

Figure 5: Showing myoma

Figure 6: USG showing impacted in cervix 4x3.4cm fibroid in cervix

Figure7: Showing excised myoma

Case 3

A 43 year, female, para2 living2 abortion2 (previous 2 LSCS, 18 and 12 years back) came with c/o pain in abdomen since 1 year and menorrhagia since 6 months. PAP smear taken s/o reactive cellular changes associated with inflammation with NILM. USG s/o ~3X2.4cm anterior wall submucosal fibroid (figure9). Per speculum and per vaginal examination showed approximately 3X2cms mass impacted in cervix with bleeding present (figure8).

Blood investigation were normal. Patient was taken up for vaginal myomectomy. Intraoperatively, on locating the myoma, vasopressin injected into fibroid wall, pedicles held with Kocher's clamp, myoma excised by dissecting it between the clamps, haemostatic sutures taken at the base of pedicle. Hysteroscope inserted to inspect the uterine cavity for any abnormality, no abnormality seen. Inj. Leuprolide 3.75 mg was given on post-operative day 3.

Histopathological report revealed leiomyoma ~ 3X3X3 cm surrounded by endometrial stroma with focal areas of inflammatory cells and haemorrhage.

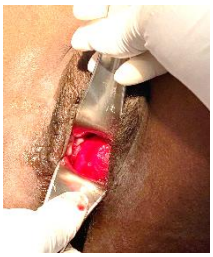

Figure 8: Showing

Figure 9: USG showing 3x2.4cm impacted myoma anterior wall submucosal fibroid

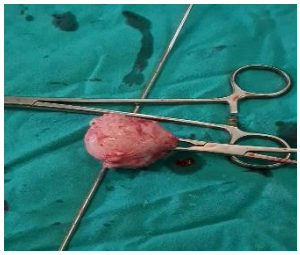

Figure10: Showing excised myoma

2.Discussion

Myomas are generally non-cancerous growths in the uterus and/or cervix that can develop during a woman's childbearing years. Premenopausal women are most likely to have endocervical myomas, and postmenopausal women are most likely to have ectocervical myomas [1]. Women most commonly present with heavy menstrual bleeding, pelvic pressure or pain, dyspareunia, difficulty in micturition, spotting or bleeding between periods (may also lead to anaemia). Prolapsed myoma can sometimes undergo necrosis due to reduced blood supply, and may get infected causing sepsis [2]. Heredity plays an important role and hence women having family history (first degree) of myoma are at increased risk of developing them. Black women have higher preponderance than any other racial groups. Hormones (estrogen and progesterone) and genetic changes seem to be responsible for development of fibroids [3].

Diagnosis often depends on pelvic examination and many are discovered incidentally. It is usually seen as a mass, which may/may not bleed, lodged inside the cervical canal or into the vagina or may protrude outside.

Complete blood count, thyroid profile in case of menorrhagia, are required to rule out any bleeding disorders [4]. Ultrasonography (transabdominal and transvaginal) may be needed for assessment of the location, extent, vascularity and drawing precise treatment options. MRI serves as an important diagnostic tool as it shows in more detail the position, dimensions and to identify different types, which is required for determining appropriate line of management.

Watchful waiting could be one of the options if the symptoms are mild, and also, they tend to shrink after menopause [5]. Norethisterone acetate can be used for menorrhagia caused due to myomas and to avoid intermenstrual bleeding. Leuoprolide acetate (GnRH analogue), suppresses gonadal sex steroidal production by suppressing LH and FSH secretion [6]. They temporarily slow the growth of fibroids or cause them to shrink in size. It also reduces dyspareunia, reduces post-surgical endometriosis, prevents recurrence of myoma. When impaction of myoma is observed, a progestin can be given to reduce vascularity and decrease intraoperative bleeding during myomectomy. GnRH can also be considered as pre surgical symptomatic therapy to reduce the size and vascularization of myoma [7]. However, this is not feasible at times because of lack of time interval when the patient presents with heavy bleeding in emergency, and also most of the prolapsed myomas already have undergone some amount of degeneration. These factors, therefore, renders the GnRH analogues ineffective.

Vaginal myomectomy stands as an ultimate minimally invasive procedure for prolapsed cervical myoma [8]. For a prolapsed myoma, devascularisation, detachment and removal are required. The location, size, mobility and ability to trace the pedicle by passing a finger around the prolapsed myoma play an important predictor for success of vaginal myomectomies. Infiltration of the myoma with diluted vasopressin also helps to decrease intraoperative blood loss. Myomectomy, generally, is done if fertility needs to be preserved. It is not necessarily a permanent cure for fibroids. Therefore, medical gonadectomy by use of GnRH analogues can bring about menopausal like state, thus preventing recurrence of myomas. Hysterectomy can be done if family is complete, and to avoid doing a re-procedure if fibroids grow back again [9]. Abdominal hysterectomy can also be performed as an emergency lifesaving measure in case of failed myomectomy, or if associated with severe haemorrhage or sepsis (with or without uterine inversion). Hysterectomy is a permanent solution for fibroids, and is an option if other treatments have failed or are inappropriate.

3.Conclusion

Vaginal myomectomy is the route of choice in pedunculated submucosal myomas along with accurate preoperative assessment of myoma's size, localization, and vascularization. Abdominal hysterectomy might be indicated in cases of narrow introitus, intractable cervix, inability to bypass the fibroid for devascularization of pedicle due to large myomas. In our case series, myomas impacted in cervix and it's likely prolapse on pressure with opportunistic tracing of its stalk was the indication for vaginal myomectomy. In order to reduce recurrence of myoma, reduce post-surgical endometriosis, improve dysmenorrhea and dyspareunia, improve haematocrit in anaemic patient, a GnRH analogue (leuprolide acetate) is recommended.

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