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Case Report

Endometrial stromal nodule: a rare entity presenting as fibroid polyp

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ABSTRACT

Endometrial stromal sarcoma are rare malignant tumours of the uterus, mainly presenting in premenopausal women, make around 0.2% of all uterine malignancies. The annual incidence of ESS is 1-2 per million women. Diagnosis is usually made post operatively by pathological findings either in endometrial sample or in hysterectomy specimen done for some underlying pathology. Management is total hysterectomy with bilateral salpingo oophorectomy with hormone therapy in hormone sensitive cases. Ovaries can be preserved in young females with early-stage disease. We are presenting a case of endometrial stromal nodule in a 38 years old woman who presented to us with complaint of abnormal heavy uterine bleeding for one and half month.

Keywords: Pedunculated, Polypectomy, Immunohistochemistry

INTRODUCTION

Cancers arising from mesodermal structures like muscles and connective tissue are called sarcomas. Sarcomas of the uterus are uncommon, and may arise from connective tissue, smooth muscle or the endometrial stroma. ESS mainly affect younger women with mean age group 42-58 years. Local recurrence and metastasis can occur even 20 years after diagnosis.

CASE REPORT

A 38-year-old woman presented in our gynecology outpatient department with complaints of heavy irregular menstrual bleeding for 1.5 months associated with pain lower abdomen. She is para 3, with all normal deliveries, last child birth 8 years back and tubal ligation done in post-partum period with no history of any other contraceptive use. She had normal regular menstrual cycles previously. Her general physical and systemic examination was normal except for mild pallor. On genital examination she had a pedunculated fibroid polyp

of 4 by 3 cm with thick pedicle arising from uterus, uterus size was multiparous and adnexa was normal. So, decided for polypectomy and therapeutic curettage. All her routine hematological and biochemical investigations including chest X-ray and ECG were normal except for a Hb of. Ultrasound showed 3.9 by 3.08 cm endometrial polyp with 17.5 mm pedicle size with marked vascularity on doppler. CA-125 was 18.6 IU/ml. After informed consent and preanesthetic clearance she was taken up for vaginal polypectomy and endometrial curettage in operation theatre. Polypectomy was done from base of pedicle which was high up near uterine fundus. As the OS was dilated due to polyp worm like projections of the adjacent myometrium could be felt near base of the polyp. Endometrial curettage was performed and samples saved in formalin and send for histopathological reporting. HPE showed tumour showing proliferation of endometrial stromal cells in fascicles and around blood vessels, cells showing round to oval nucleus with finely granular dispersed chromatin and inconspicuous nucleoli, with few hemorrhagic areas. Endometrial biopsy showed normal proliferating endometrium. Tumour cells on immunohistochemistry was CD10 and desmin positive,

hence findings diagnostic for endometrial stromal sarcoma. Patient called back for further management and the need of surgery that is total abdominal hysterectomy with bilateral salpingo oophorectomy with lymph node dissection and requirement of post-operative hormonal therapy if needed, were explained. MRI abdomen and pelvis were done which showed no significant abnormality, minimal fluid in endometrial cavity with no obvious mass or thickening, no lymphadenopathy seen. The woman was taken up for total abdominal hysterectomy with bilateral salpingo oophorectomy and pelvic lymph node dissection procedure as ESS has high chances of recurrence and metastases. Peritoneal washings taken which showed no abnormal finding. Uterus, cervix, bilateral fallopian tubes, ovaries and bilateral pelvic lymph nodes were normal. No evidence of malignancy seen in the samples. Hence a final diagnosis of endometrial stromal nodule was made. We did not do markers of hormone receptors as final histopathological specimen was negative.

DISCUSSION

Endometrial stromal sarcoma is rare malignant tumour of mesenchymal origin. The WHO recognizes three categories of endometrial stromal tumours: Endometrial stromal nodule (ESN), low-grade endometrial stromal sarcomas (LGESS), and undifferentiated endometrial sarcoma (UES). ESN and LGESS presents mainly in premenopausal age group with mean age of 40-55 years. UES that is high grade ESS usually presents in postmenopausal age group. The common presenting symptoms are abnormal uterine bleeding, pelvic pain, pressure symptoms, and urinary abnormalities, the initial clinical impression is usually a leiomyoma.¹

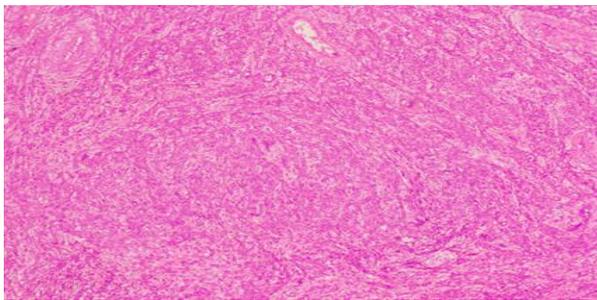


Figure 1: Photomicrograph of tumour comprising of proliferation of endometrial stromal cells in fascicles and around blood vessels, (H and E, 100X magnification).

Diagnosis is made usually post operatively by histopathology and immunochemistry. Tumour shows wide range of behavior and can spread locally to vagina, fallopian tubes, ovaries, bladder and ureters. Distant metastases is also seen to heart and lungs.^{2,3} Prognosis depends upon stage of disease. FIGO staging of ESS is similar to uterine carcinoma. ESN and ESS are difficult to diagnose and even more difficult to differentiate on basis

of curettage specimen, so hysterectomy specimen is must for differentiation and for further management. Myometrial and vascular invasion are the two main features that help us to differentiate ESS.

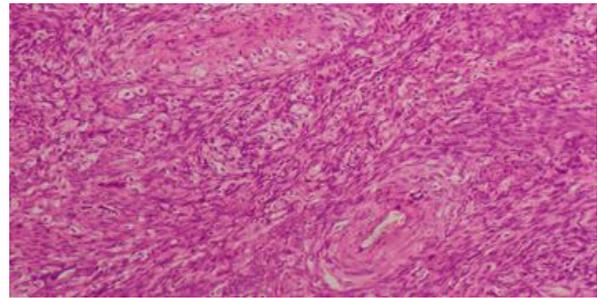


Figure 2: Photomicrograph of tumour cells with round to oval nucleus with finely granular dispersed chromatin and inconspicuous nucleoli, with few hemorrhagic areas (H and E, 400X magnification).

From ESN and the UES resembles the sarcomatous component of carcino sarcoma, hence extensive sampling of the tissues is required for confirmation of diagnosis.⁴ In contrast to ESS, ESN which is considered benign has smooth, expansile, non-infiltrating margins on histology whereas ESS has infiltrating irregular margins. Focal irregularities in the form of lobulated or finger like projections into the adjacent myometrium that are not >3 mm and are not exceeding three in number, however, may be seen in ESN.⁵ In low grade ESS, cords of tumor cells infiltrate between smooth muscles and lymphatics, hence extensive sampling of tumor margin for detection of myometrial involvement, vascular invasion and lymphatic invasion is required. Neoplastic stromal cells are monotonous in appearance with uniform shape and size (Figure 1), round to oval nuclei with fine chromatin and small nucleoli (Figure 2), and resemble to proliferative endometrium. ESS and leiomyoma are differentiated by immunochemistry with CD10 and smooth muscle actin and desmin (Figure 3), for surety of diagnosis.

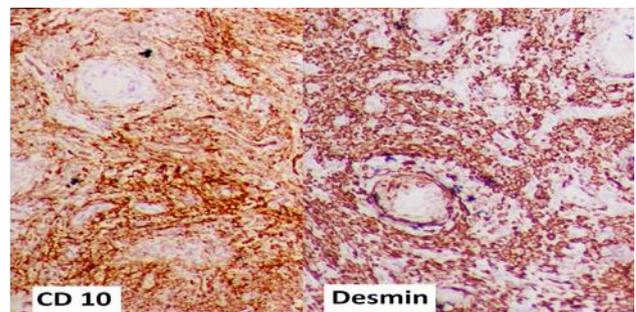


Figure 3: Photomicrograph of tumour cells positive for both CD10 and desmin on immunohistochemistry.

Management primarily involves surgery and extent of surgery depends upon stage of disease. Peritoneal washings are taken from pelvis and abdomen to see any

spread in cavity. Total abdominal hysterectomy with bilateral salpingo-oophorectomy and pelvic and para-aortic lymph node dissection is surgery of choice. In hormone receptor positive cases, low grade ESS stage 3-4, and in cases of recurrence medroxyprogesterone acetate, tamoxifen, GnRH analogues, aromatase inhibitor is suggested.^{6,7}

CONCLUSION

Endometrial stromal sarcomas are rare entity, diagnosis is often made post operatively, and high index of suspicion, histology and immunochemistry aid in diagnosis. Management involves extensive surgery and postoperative hormonal therapy. Because of its rarity multi analysis from larger group of patients is required for diagnosis, prognosis and proper treatment.

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Ethical approval: Not required

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