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EXPECTING THE UNEXPECTED: PARAOVARIAN LEIOMYOMA

Medical Education

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ABSTRACT

Leiomyomas are benign tumours which originate in the smooth muscle rest cells. The origin of leiomyomas at paraovarian site is extremely rare, and to date, only one case report of paraovarian leiomyoma has been published. In this report, we describe a case of 61 year old female who presented with postmenopausal bleeding since 1 year.A diagnosis of paraovarian leiomyoma was made after histopathological examination.The diagnosis was confirmed through immunohistochemistry.

KEYWORDS

Leiomyoma, Paraovarian leiomyoma, Immunohistochemistry

INTRODUCTION:-

Uterine fibroid or leiomyoma is one of the most common benign tumors of women in the reproductive age group, with an estimated prevalence ranging from 4.5% to 68.6%[1]. Despite being the most common tumor, the etiology still remains a speculation. Genetic and hormonal factors have been implicated. Although estrogen, growth hormone, and possibly human placental lactogen have been implicated, the role of estrogen in their growth is significant[2]. The uterine fibroids are classified into three categories according to their anatomical location: submucous fibroids- located in the muscle below the endometrium; interstitial/intramural fibroids are most common and located within the uterine wall; and subserosal fibroids located just below the serosal surface of the uterus[3]. At times fibroids are asymptomatic and do not require treatment, contrast to this sometimes severe symptoms like menorrhagia, dysmenorrhea and pressure symptoms occur which makes treatment necessary which can have a negative impact on different aspects of women's life[4]. These histologically benign tumors, which originate from smooth muscle cells, usually arise in the genitourinary tract (in the vulva, ovaries, urethra, and urinary bladder) but may arise in nearly any anatomic site[5]. Extrauterine fibroids are uncommon and paraovarian leiomyoma is an extremely rare condition with only one published report in the literature[6].

CASE REPORT:-

We report a case of a 61-year-old multiparous woman who presented with post menopausal bleeding past 1 year. On the physical examination, no mass was detected in adnexal area. The patient underwent ultrasound , which revealed senile atrophic uterus with no adnexal mass lesion. A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed by an experienced gynecological surgeon. No adnexal mass was detected intraoperatively. Specimen was sent to Department of Pathology for histopathological examination. We received a uterus with cervix with attached bilateral adnexa measuring 5.3X3.8X0.9 cm. On cut section of the uterus and cervix, no significant gross abnormality was detected. Right adnexa was unremarkable grossly. Left ovary measured 3.5 x 3 x2.5cm. Outer surface of left adnexa was smooth and congested. On cut section of the left ovary, inner surface was grey brown ,grey white and firm in consistency measuring 1.5x 1.2X1cm. Adjacent to this area, a well demarcated, well encapsulated solid homogenous white area was identified measuring 2x.1.8X1.5 cm. Fallopian tube was 4.5 cm in length and was unremarkable. Histopathological examination of sections processed from left ovary revealed an Ovarian Paraleiomyoma. An immunohistochemistry panel of Smooth Muscle Actin (SMA) and Desmin was employed. There was strong diffuse cytoplasmic positivity for SMA and Desmin in tumour cells.

DISCUSSION:-

Leiomyomas are considered as one of the most common mesenchymal neoplasms in the gastrointestinal tract and uterus[7]. Extrauterine fibroids are rare and paraovarian leiomyoma is an extremely rare condition. To the best of our knowledge, only one case has been published from ovarian leiomyomas,ovarian fibroma-thecomas, cellular fibromas, sclerosing stromal tumours, leiomyomas arising in the broad ligaments and uterine leiomyomas becoming parasites on the ovary (wandering leiomyomas).In our case the tumour was of paraovarian origin, as it was located adjacent to the ovary and ovarian stroma was completely discernible. Clinically, many patients are asymptomatic, and the tumour is discovered incidentally as in our case . When symptoms are present, they are related to the presence of an adnexal mass, which are often accompanied by an abdominal swelling or pain. In pure ovarian leiomyomas, no menstrual irregularities are encountered. Weight loss, ascites and an increase in the abdominal girth may complicate the large and fairly rapidly growing tumours[8]. The correct diagnosis of paraovarian leiomyoma requires identification of the smooth muscle nature of the tumour. Immunohistochemistry is must to confirm the diagnosis. The diffuse strong positive staining for SMA is characteristic of leiomyoma. [9].

CONCLUSION:-

This case report presents a rare case of Paraovarian Leiomyoma. Preoperative diagnosis of these tumours is difficult . A thorough histopathological examination along with immunohistochemistry is required for confirmation of diagnosis.

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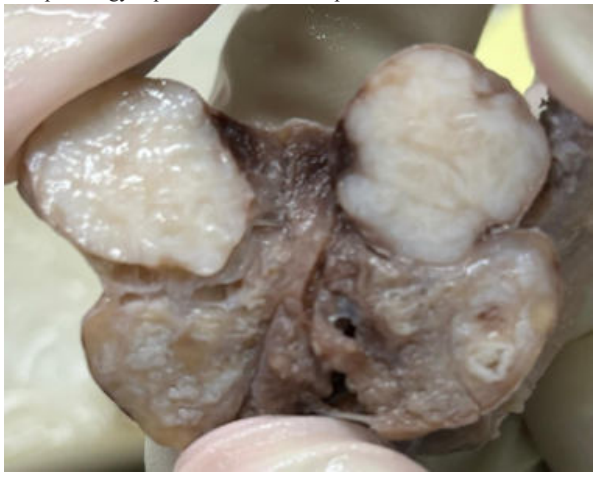

Figure 1: Gross image showing a well demarcated, well encapsulated solid homogenous white area adjacent to the ovary measuring 2x.1.8X1.5 cm.

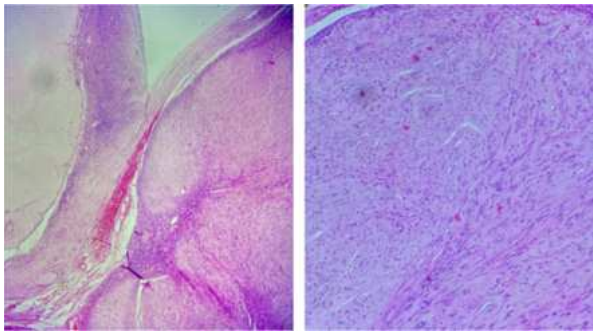

Figure 2: Hematoxylin and Eosin (H and E, 100X) section showing a well encapsulated lesion comprising of intersecting fascicles of smooth muscle cells adjacent to the ovary.

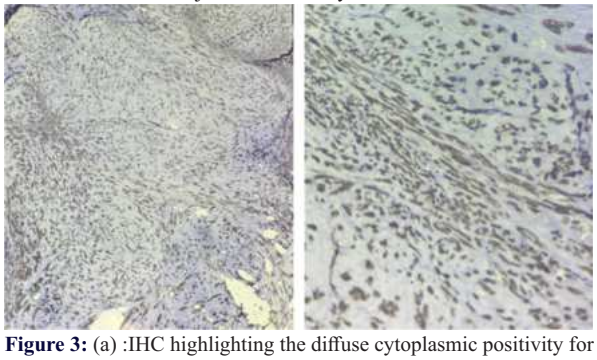

Figure 3: (a) :IHC highlighting the diffuse cytoplasmic positivity for SMA by smooth muscle cells.(b) IHC highlighting the diffuse cytoplasmic positivity for Desmin by smooth muscle cells.

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