Online Journal of Health and Allied Sciences
Peer Reviewed, Open Access, Free Online Journal
Published Quarterly : Mangalore, South India : ISSN0972-5997
Volume 12, Issue 4; Oct-Dec 2013

Case Report:

Preoperative Surprise of a Mass per Abdomen Mimicking Ovarian Neoplasm in a 50 Years Old Woman.

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Citation
Sailaja S, Rathod PS, Umadevi K, Shruti S, Bafna UD. Preoperative Surprise of a Mass per Abdomen Mimicking Ovarian Neoplasm in a 50 Years Old Woman.*Online J Health Allied Scs.* 2013;12(4):12. Available at URL: http://www.ojhas.org/issue48/2013-4-12.html

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Submitted: Oct 12, 2013; Accepted: Jan 5, 2014; Published: Feb 20, 2014

Abstract: We report a large cystic tumour of about 40cms size in a perimenopusal woman mimicking ovarian tumour, with peroperative surprise of finding it as degenerated fibroid arising from fundus of the uterus.

Key Words: Ovarian neoplasm; Leiomyomata uteri; Degenerated

Introduction:

The most common gynaeclological cause of distension of abdomen in a perimenopausal woman is ovarian neoplasms. We present an unusual presentation of massive degenerated fibroid mimicking a ovarian tumour in a perimenopausal woman. Fibromyomas are benign neoplasms, commonly encountered in gynaecological practice in the reproductive age group. As a result of diminsished vascularity after menopause they shrink in size. Hyaline, cystic, calcareous, carneous and fatty degenerations are described. Sarcomatous degenerations are rare and occur in 0.5% of all myomas. This patient diagnosed as ovarian neoplasm underwent laparotomy and was surprisingly found to have a cystic tumour arising from the fundus of the uterus.

Case Report:

A 50 years old lady presented with chief complaint of gradual distension of abdomen and back pain since 8 years. She was a parous woman with two children and her menstrual cycles were regular with normal flow. Her last child birth was 25 years back. On examination (Fig.1), her abdomen revealed a large cystic mass of 40x38x40cms size, pervaginal examination showed cervix flushed with vagina, uterus and adnexa were not felt separately, mass was high up, parametria was supple.

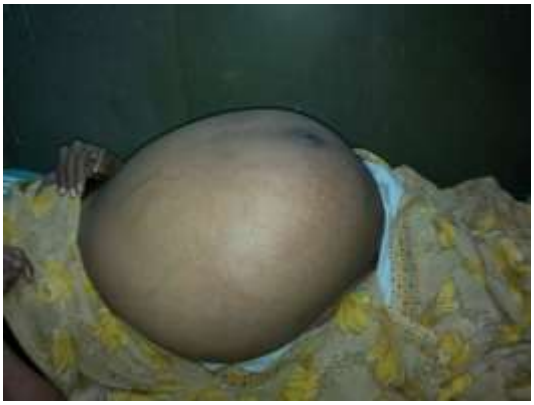

Figure 1: Preoperative photograph

Ultra sound revealed a 24x27cm cystic mass, arising from the pelvis with thick septa and solid components. CT abdomen revealed a large multiloculated mixed solid cystic lesion with predominantly cystic component involving pelvis and abdomen measuring 38x32x50cms with multiple thin and thick septa(Fig.2).

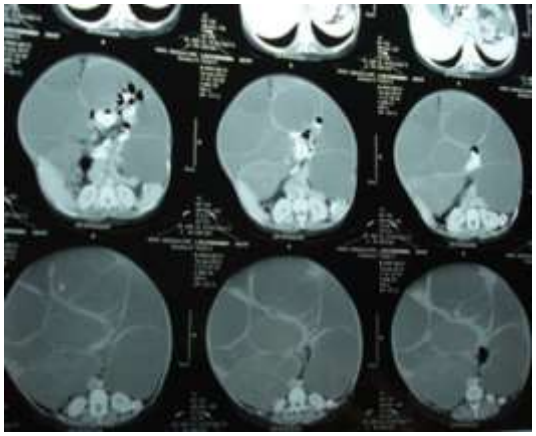

Figure 2: CT Scan showing cystic mass

Mass was abutting uterus with loss of fat plane and displacing it towards right side. Both ovaries were not separately visualized. There was no lymphadenopathy. An impression of ovarian malignancy was given. Her CA 125 was 253.30U/ml. A provisional diagnosis of ovarian malignancy was made. The patient was admitted and underwent laparotomy. Per operatively surprisingly the mass was found arising from fundus of uterus, multicystic, rubbery in consistency with no solid areas (Fig.3). It was well encapsulated with flimsy adhesions to omentum and peritoneum, weighing 19kgs. Both adnexa were grossly normal and uterus was atrophic. Total abdominal hysterectomy and bilateral salpingoopherectomy was done along with the excision of the tumour (Fig. 4).

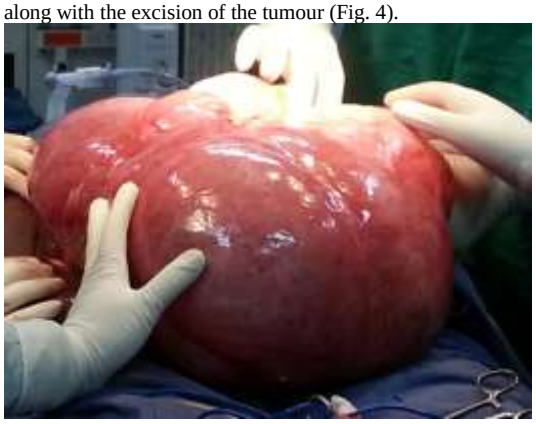

Figure 3: Peroperative photograph

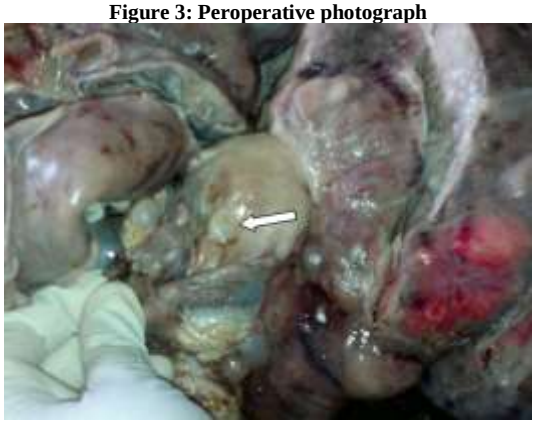

Fig 4: Gross view showing ovaries and tumour arising from fundus of uterus

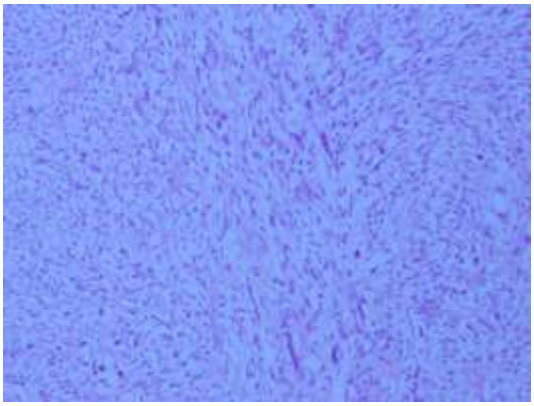

Fig 5: Histopathological examination showing small round cells, thick walled vessels, spindle cell areas with myxoid change.

Microscopic examination showed small round cells, thick walled vessels, spindle cell areas with myxoid change, few nuclear atypia, mitosis less than 5/10 hpf, omentum was normal. Immunohistochemistry revealed neoplastic cell positive for SMA, desmin, H-caldesmin, ER, PR, WT1 and focally positive for CD10 suggestive of cellular leiomyoma with areas of myxoid and cystic degeneration (Fig. 5).

Discussion:

Leiomyomata are the common tumours of uterus and the female pelvis. They are benign tumours composed mainly of smooth muscle cells but containing varying amounts of fibrous connective tissue. The tumour is well circumscribed but not encapsulated they have an incidence of around 50% seen in postmortem examination.[1] It is seen in women of childbearing age group, 30-40years (rarely before 20years), nulliparous or of low parity, only 20-30% are multiparous. The incidence was the same in premenopausal and postmenopausal uteri, although the average number of leiomyomata and the average size of the largest leiomyoma were greater in the premenopausal women.[1]

The growth of leiomyomata is dependent on estrogen production.[2] Continuous estrogen secretion, especially when uninterrupted by pregnancy and lactation, is thought to be the most important underlying risk factor in the development of myomata. After menopause, with regression of ovarian estrogen secretion, growth of leiomyomata usually ceases. There are rare instances, however, of postmenopausal growth of benign leiomyomata, suggesting the possibility of postmenopausal estrogen production either in the ovary or elsewhere. Post menopauasal ovarian cortical stromal hyperplasia may be associated with an increase in estrogen secretion by the ovary. The postmenopausal ovarian stroma in a variety of presumably inactive ovarian tumours, including mucinous cysts and brenners tumours can also produce estrogen. When a pelvic tumour presumed to be uterine leiomyomata enlarges after menopause, one should think of the possibility of malignant change in the leiomyoma itself or in the adjacent myometruium, or of the growth of a new pelvic tumour of extrauterine origin.

Leiomyomas are all interstitial or intra mural in the beginning and as they enlarge they extend in an internal or external direction, the tumour eventually become subserous or submucous in location. A subserous tumour can become pedunculated and occasionally parasitic, receiving its blood supply from another source, usually the omentum. Subserous leiomyomata may be pedunculated and simulate adnexal masses.[3,4] Submucous leiomyomata contain more smooth muscle tissue than subserous leiomyomata, sarcomatous change is more common in submucous tumours.[1]

The most common change in leiomyomata is hyaline degeneration found in 60% of tumours.[5] Eventually these

may become liquefied and form cystic cavities filled with clear liquid or gelatinous material. Some times the cystic change is so great that the leiomyoma becomes a mere shell and is truly cystic tumour1 like in our case.

Calcified degeneration of leiomyomata may present as calcified cyst or womb stones they are most often seen in elderly women, black women and in women who have pedunculated subserous tumours. Carneous or red degeneration is seen occasionally in association with pregnancy due to necrosis caused by interference with its blood supply.[6] Fatty degeneration occurs occasionally. The most important but rare, change in a leiomyoma is sarcomatous degeneration with incidence given by Novak is 0.7%.[1] Sarcomas unlike fibrous tissue do not grate when scraped with knife, the tissue is soft and homogenous, and is described as resembling raw pork. All tumors with less than five mitotic figures per 10high power fields are considered benign. More than 10 mitotic figures per 10high power field area called malignant, those in between can be called smooth muscle tumors of uncertain malignant potential.

In conclusion cystic degeneration with solid areas and septae in a fibroid mimics a ovarian malignancy in clinical presentation. In these cases even tomography may be mileading.[4] Magnetic resonance imaging may be helpful in reaching accurate diagnosis preoperatively[7,8] The knowledge of differential diagnosis helps us in peroperative decisions and post operative managment of the patient.

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