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Recurrent Large Complex Ovarian Cyst Requiring Resurgery Resembling Ovarian Fibroma with A Twist of Report: A Rare Case Report

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ABSTRACT

Polycystic ovary is a highly prevalent disease seen in women of reproductive age group and a complex multifactorial genetic disorder. The quality of life as well as the fertility for as women with polycystic ovary are significantly hampered as it contributes to the morbidity and mortality due to the altered endocrinal system giving rise to various metabolic syndromes. We report a very rare case, first time in literature of a nulligravida recurrent large adnexal cyst who previously underwent a cystectomy for a large ovarian mass now presented with a symptomatic large complex adnexal cyst requiring a re-surgery grossly mimicking ovarian fibroma, confirmed to be a case of large bilateral polycystic ovary requiring surgical exploration and removal of enlarged ovarian tissue.

KEYWORDS

Complex ovarian mass; enlarged polycystic ovary; mimicking ovarian fibroma; polycystic ovary requiring surgery; case report.

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Introduction

Ovarian cyst is a common gynecological problem. It can be physiological or pathological. Luteal and follicular cyst are considered to be physiological. Pathological cyst are considered as ovarian tumors, which are benign, malignant and borderline[1]. Most patients with ovarian cyst are asymptomatic. Some cysts, however may be associated with a range of symptoms such as pain, discomfort, menstrual irregularities, pelvic pressure symptoms, changes in the bowel movements, abdominal fullness, bloating, sometimes severe including torsion and rupture[2]. Transvaginal ultrasound is the preferred modality for assessment of a suspected pelvis mass. The definitive diagnosis of all ovarian cyst is made based on histopathological analysis[3]. Laboratory test though not diagnostic may aid in differential diagnosis. Serum biomarker testing with Cancer antigen 125 (CA125) when combined with ultrasonographic investigation while assessing a postmenopausal women[2,4] and hcg, L-lactated dehydrogenase, alpha fetoprotein, and inhibin done in less suspected histology[3]. Persistent simple ovarian cyst of >10cm and complex ovarian cysts should be considered for surgical removal[3].

Case Presentation

A 28 year old unmarried nulligravida presented in Gynaecology OPD with complaints of lower pain abdomen for 6 months with disturbances of menses since menarche. She gets her menses once in every two months, bleeds for 3-4 days with severe dysmenorrhea. History of right sided cystectomy amounting to a size of ~ 6cmx6.7cmx6cm six months prior. She had also complaints of presence of multiple small nodules on her arms and trunks for a duration of 10 years for which she was evaluated, history of ear surgery two times due to perforated tympanic membrane, history of ventricular septal defect repair at 2 years of age. No history of other significant chronic illness. No history of recent weight gain/weight loss nor excessive hair growth/hair loss however she was found to be overweight with BMI of 27.78kg(m2) her vitals were stable, bilateral deformity of the great toe was noted with cubitus varus deformity of the elbow. She was evaluated and advised.

Per abdomen examination, a multilobulated non tender, freely mobile mass on the left iliac was palpated.

Investigatory reports showed deranged Thyroid function test with TSH of 7.86 mIU/L. Echo cardiography showed mildly dilated Right Atrium, grade 2 diastolic dysfunction with Ejection fraction of 60%. Ultrasonography showed bilateral grossly bulky (left>>right) fused ovaries with ill-defined cysts and solid areas within it with left adnexa cyst showed in Figure 1. Tumor markers were normal. Fitness for surgery taken. Upon opening up the abdomen bilateral hard consistency of the ovary with few cystic spaces that gave an appearance of a benign ovarian tumor resembling ovarian fibroma as shown in Figure 2 with lobulation over the left ovary measuring ~6cm x5cm each with cystic spaces and ~4cm x 4cm over the right ovary. Partial ovariotomy of bilateral ovary was done due to gross enlargement of the whole ovary with maximum salvaging of ovarian tissue. Histopathological examinations were sent.

On cut section grossly seen as a grey white irregular ovarian tissue with nodular outer surface in appearance. Cut surface showed solid to cystic in appearance with variable sized cyst as seen in Figure 3. Histopathological examination revealed Cystic follicles with luteinized theca layer in Figure 4 suggestive of polycystic ovary.

Patient was followed up after three months post procedure and sonography of pelvis was done where normal ovarian tissue over the right

ovary was clearly documented as shown in Figure 5(with an arrow).

Figure 1. Mass marked in arrow

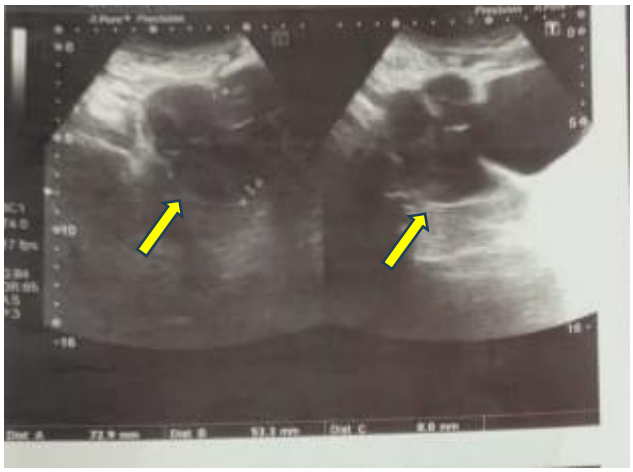


Figure 2. Chalky bulky bilateral ovary with cystic spaces

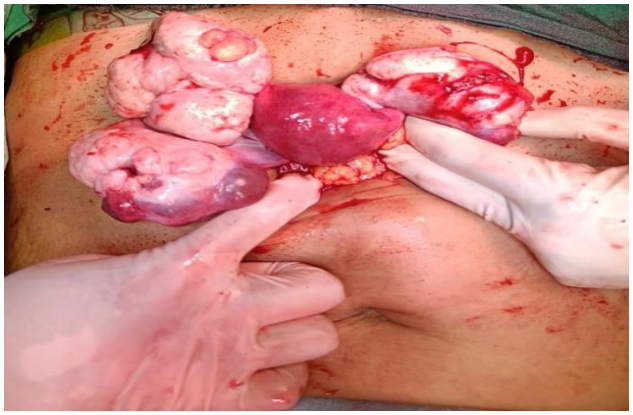


Figure 3. Cut section solid appearance with cystic filling

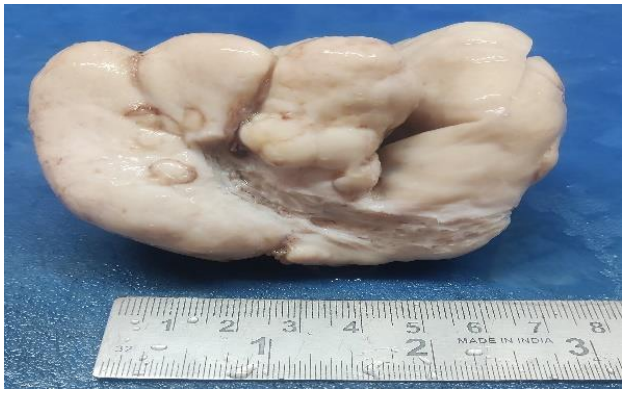


Figure 4. Cystic follicles with leuteinized theca layer

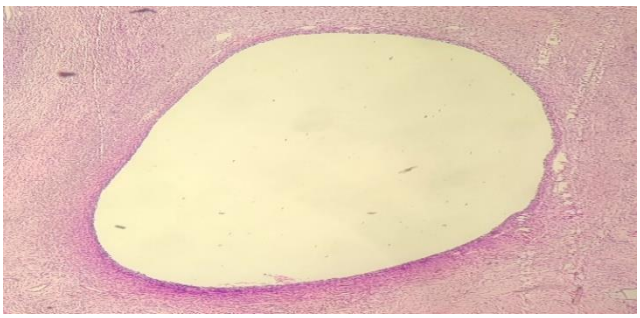
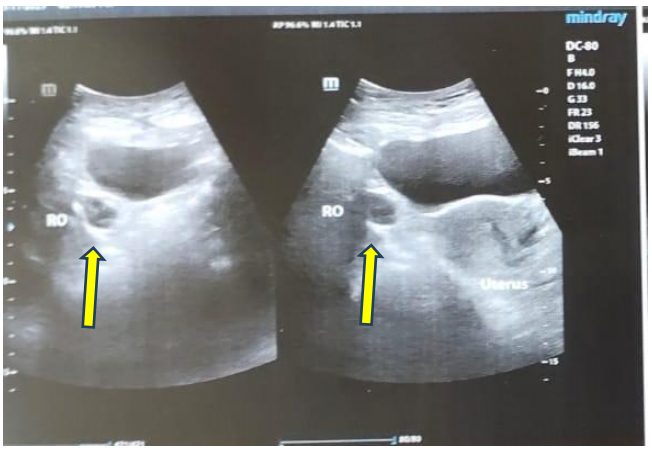


Figure 5. Post operative USG scan



Discussion

Polycystic ovary syndrome is a highly prevalent disease seen in women of reproductive age group. It is a hyperandrogenic disorder with the approximate prevalence of 15 to 20% and despite being a common disease an estimated 68% of the total cases remain undiagnosed[5]. Late diagnosis and no timely measures increase the risk of progressing to avoidable, adverse consequences associated with the syndromes. 30% of adolescent female with PCOS are risk for metabolic syndrome[6] and three-four fold times increased risk of developing early onset endometrial cancer[7].

Treatment targeting metabolic abnormalities includes lifestyle changes, medication and sometimes even bariatric surgery for the management of obesity. Timely diagnosis and

appropriate management to prevent metabolic complications are of paramount importance[8].

First line medical therapy usually consists of an oral contraceptive to induce regular menses. The contraceptive not only inhibits ovarian androgen production but also increases sex hormone binding globulin (SHBG) production. ACOG recommends use of combination low dose hormonal contraceptive agents for long term management of menstrual dysfunction[3]. Metformin, an antidiabetic drug, improves insulin resistance and decreases hyperinsulinemia in patients with PCOS[9]. As per RCOG, Metformin also serves a small beneficial effect on metabolic syndrome as well as potentially causing a modest reduction in androgen level (11%)[10].

Surgical management of polycystic ovarian syndrome is aimed mainly at restoring ovulation. In our case report, the sonogram revealed a complex adnexal mass with multiloculated cyst, intraoperatively chalky white hard consistency with lobulated surface was seen as shown in Figure 2 which resembled ovarian fibroma like however confirmed to be a case of polycystic ovary. Multiple literatures on surgical management with laparoscopic ovarian drilling for the management of polycystic ovary with infertility were reported however this is the very first case in literature where a polycystic ovary that grossly mimicked an ovarian fibroma with symptomatic palpable mass later confirmed to be polycystic ovary by histopathology requiring a surgical exploration and removal of the enlarged ovarian tissue. Preoperative differential diagnosis of a multiloculated cyst should be considered. To reflect typical features of ovarian malignancies, a study using IOTA framework can be used where the identification of a multiloculated solid cyst has a positive predictive value for malignancy of 43%, a sensitivity of 42.1%, and specificity of 79.6%[11].

The definitive and correct diagnosis however remains with histopathological examination and diagnosis in our reporting case was confirmed as a polycystic ovary with solid areas showing luteinised theca cells requiring surgical removal.

Conclusion

PCOS is a chronic complex disease affecting women's health throughout their lives in which the genetic, endocrine, environmental and behavioral factors are interwined affecting the psychological and quality of women's life. To ensure quality care, psychological distress also needs to be addressed. In addition to medical therapy, inculcating a healthy life style, good nutrition, physical activity, support from family and friends can enable thrive despite the disease.

Conflicts of Interest

There is no conflict of interest reported by the authors.

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