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PREGNANCY LUTEOMA- AN UNUSUAL CASE REPORT

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ABSTRACT Pregnancy luteomas are rare, benign neoplasms of the ovary thought to be caused by the hormonal effects of pregnancy. They are usually unilateral. Most of the patients are asymptomatic. The ovarian enlargement is incidentally discovered during imaging or surgery. Some patients may develop hirsutism or virilization during late pregnancy. Luteomas spontaneously regress after pregnancy. It can be a diagnostic and management challenge as they mimic the presentation of malignant ovarian tumors. I present a 21-year-old female with an enlarged ovary discovered incidentally at the time of caesarean section.

KEYWORDS : Pregnancy luteomas, Caesarean section, Virilizing tumor of ovary

INTRODUCTION

Pregnancy luteoma is a rare nonneoplastic tumor-like lesion of the ovary that was first described by Sternberg and Barclay in 1966, and to date, fewer than 200 cases have been reported in the literature.[1] It is usually discovered incidentally at the time of a caesarean section or during postpartum tubal ligation. Most cases resolve completely postpartum.[2] An accurate diagnosis is important for both mother and fetus since it can be confused with ovarian malignancy leading to unnecessary oophorectomy, with concomitant risk to both mother and fetus.[3]

Case Report

The present case report is about a 21-year-old primigravida who conceived spontaneously with one year of marital life. She was a primi with passed dates with hypothyroidism admitted in the obstetrics ward for safe confinement. Her menstrual cycles were normal, with an average number of bleeding days, except for dysmenorrhoea. Her past medical history and family history were not significant. She was diagnosed to be hypothyroid in the 3rd month of gestation started on Tab.Thyronorm 25mcg OD. Her CBP and other blood investigations, including thyroid profile and blood sugars, were within normal limits. On general physical examination, she was 154 cm, had facial hair and hoarseness of voice. On pelvic examination, she had a borderline pelvis with an average interspinous diameter. Her recent ultrasound revealed an estimated fetal weight to be 4010 gms. She underwent elective caesarean section in view of a big baby, i.e., primi with term gestation with unengaged head with cephalopelvic disproportion. A male baby of birth weight 3.8 kg was delivered uneventfully. Intraoperatively, left-sided cystic ovarian mass was observed. Initially, we suspected it to be endometrioma by gross examination, and unilateral oophorectomy was performed. The specimen was submitted for histopathological examination in 10% formalin.

Gross appearance:

Macroscopic examination showed a cystic swelling adjoining the left ovary, approximately measuring 5x 3x2 cm with the fimbrial end of the left fallopian tube and omentum adherent to it. Increased vascularity is also noted. The cut surface of the ovary was circumscribed, soft, fleshy, and gray-brown [Figure 1, 2].

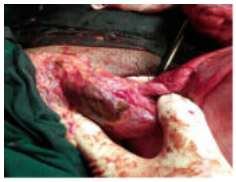

Figure 1: Left ovarian mass found incidentally at caesarean section

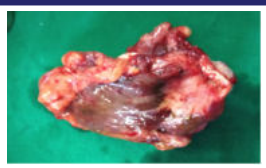

Figure 2: Gray-brown cystic swelling with omentum and fimbrial end of left fallopian tube adherent to it

Histopathology:

Microscopically, sections from the left ovarian mass revealed a lesion composed of diffuse masses of cells arranged in sheets, nests, and cords [Figure 3]. The cells were polygonal in shape and had an abundant amount of finely granular eosinophilic cytoplasm. Nuclei were small, round, vesicular with prominent nucleoli. Occasional mitotic figures, areas of necrosis, and focal areas of hemorrhage were noted.

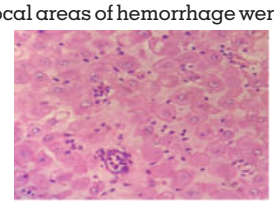

Figure 3: Microscopic section of the mass

Based on the clinical and histopathological findings, a diagnosis of pregnancy luteoma was made. Reinke crystals were not found in the sections studied; therefore, Leydig cell tumor and steroid cell tumor were ruled out, and a final diagnosis of pregnancy luteoma was made.

DISCUSSION:

Pregnancy luteomas are benign tumors of lutein-like cells and are variable in size, ranging from microscopic to over 20 cm in diameter[4]. Large luteomas rarely can cause torsion, resulting in acute abdominal pain. On gross examination, cut surfaces of luteomas are solid, soft, tan, or flesh-coloured, with haemorrhagic foci. Microscopically, luteomas are sharply circumscribed nodules composed of polygonal cells arranged in sheets, cords, or small clusters or form follicles containing colloid-like material. The cytoplasm is abundant eosinophilic and finely granular. The nuclei may be slightly pleiomorphic. In 25% of the cases, luteomas are hormonally active, leading to secretion of androgens causing maternal hirsutism and virilization[5]. Virilization of the female fetus occurs in half of the patients with maternal hirsutism, which results in clitoral enlargement and ambiguous genitalia. Male fetuses are not affected by this condition. The index case did not show any signs of virilization in either mother or baby; hence, hormonal studies were not done in our case.

There are some conditions that predispose a woman to form a luteoma during pregnancy. Polycystic ovary syndrome is one

such condition.[3] The high levels of hormones in polycystic ovary syndrome seem to be the predisposing factor for pregnancy luteoma. Other risk factors associated with luteomas are multiple pregnancies and advanced maternal age. Women who have already had a luteoma during a previous pregnancy have a higher risk of having another luteoma.

The differential diagnosis for pregnancy luteomas includes granulosa cell tumors, thecomas, Sertoli-Leydig cell tumors, pure Leydig (hilar) cell tumors, stromal hyperthecosis, stromal luteomas, and hyperreactio luteinalis. Because of the solid nature of the mass, it is impossible to differentiate luteomas from other solid ovarian neoplasms such as luteinized thecoma, granulosa cell tumor, or Leydig cell tumor based on imaging characteristics alone.

Malignant ovarian neoplasms are rare in pregnant women. Since luteomas regress spontaneously following a drop in chorionic gonadotropin after delivery, observation of an adnexal lesion compatible with luteoma in the short-term postpartum period could be considered in the proper clinical setting. Ovaries and serum testosterone usually return to normal size and levels at 2–3 weeks postpartum.[6]

CONCLUSION:

Pregnancy luteoma is a rare condition that probably represents an unusual response to the altered hormonal environment in pregnancy. These present a diagnostic and management challenge in that they can simulate the presentation of malignant ovarian tumors. When there is a high clinical suspicion for pregnancy luteoma, conservative management is appropriate since these tumors will usually regress spontaneously.

REFERENCES:

1. Spitzer RF, Wherrett D, Chitayat D, Colgan T, Dodge JE, Salle JL, et al. Maternal luteoma of pregnancy presenting with virilization of the female infant. *J Obstet Gynaecol Can*. 2007;29:835–40.
2. Garcia-Bunuel R, Berek JS, Woodruff JD. Luteomas of pregnancy. *Obstet Gynecol*. 1975;45:407–14.
3. Phelan N, Conway GS. Management of ovarian disease in pregnancy. *Best Pract Res Clin Endocrinol Metab*. 2011;25:985–92.
4. Clement PB. Tumor-like lesions of the ovary associated with pregnancy. *Int J Gynecol Pathol*. 1993;12:108–15.
5. Zander J, Mickan H, Holzmann K, Lohe KJ. Androluteoma syndrome of pregnancy. *Am J Obstet Gynecol*. 1978;130:170–7.
6. Joshi R, Dunaif A. Ovarian disorders of pregnancy. *Endocrinol Metab Clin North Am*. 1995;24:153–69.