Dear Sir,

Hyperreactio luteinalis refers to benign enlargement of bilateral ovaries due to multiple theca lutein cysts, mostly associated with hydatidiform mole or choriocarcinoma and rarely with normal pregnancy (1). Generally it is asymptomatic, but patient can present as acute pain abdomen due to torsion or ruptured cysts.

We describe a case of a 28 year old pregnant women with 32 weeks of gestation who presented in emergency with acute pain abdomen. General examination revealed hirsuitism, excessive stria, acne all over the body and deepening of voice (figure 1a). Per abdominal examination showed 36 weeks gestation. On ultrasonography right ovary was enlarged measuring 11x11x8 cm with multiple thin walled cysts. Left ovary showed simple cyst measuring 5.7x3.3 cm. Fetal ultrasonography demonstrated a normal fetus, appropriate in size for gestational age. An emergency cesarean section with right sided salpingo oophorectomy and left sided cystectomy was done. A female baby was delivered. No virilisation of baby was seen. Gross examination showed enlarged ovary measuring 10x8x8cm along with attached fallopian tube which was unremarkable. Cut section showed multiloculated cysts filled with mucous and hemorrhagic fluid. Sections from right ovary showed follicular cysts of variable sizes with prominent luteinization of theca interna layer (figure 1b). Corpora lutea, stromal edema, hemorrhage and vascular congestion were also noted. Attached fallopian tube showed no significant pathology. Left ovary showed follicular cysts with luteinized theca interna layer. Based on clinical and histopathological findings a diagnosis of Hyperreactio Luteinalis was made.

Hyperreactio luteinalis (HL) is a rare disease characterized by marked cystic enlargement of the ovary due to multiple benign theca lutein cysts. These cysts arise due to abnormal response of atretic follicles in the ovaries to circulating βhcG. It is usually associated with gestational trophoblastic disease, multiple pregnancies and rarely in normal pregnancy (1,2). Our patient had normally conceived pregnancy. An abnormally rapid rise in βhcG the first trimester or abnormal sensitivity of the βhcG receptor due to gene mutation can lead to HL in a spontaneous singleton pregnancy (2).

It can occur at any stage of pregnancy but typically seen in third trimester (3). Patient may be asymptomatic or they present as acute abdominal pain due to intra-abdominal pressure, torsion or intracystic haemorrhage. 25% of affected patients can develop hyperandrogenism due to elevated level βhcG as in our patient (4).

It is a benign condition, so should be managed conservatively, but surgical management is indicated to remove infarcted tissues following torsion, to control haemorrhage or decrease androgen production in virilised patients (6).

To conclude, HL is a benign entity which regresses after delivery, its recognition is important since misinterpretation at laparotomy can result in unnecessary surgery. Oophorectomy is necessary only to remove infarcted tissue or to control haemorrhage.

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Fig. 1a. Hirsuitism on the neck

Fig. 1b. Follicular cyst with luteinization of theca interna (40x H&E)

Reference


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