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Conservative Management of Theca Lutein Cyst Accident: A Case Report

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ABSTRACT

Theca lutein cysts can occur in 20-25% of molar pregnancies. These cysts can undergo complications such as torsion, rupture, and haemorrhage. As these are functional cysts, when there are complications such as torsion they can be managed conservatively by aspirating the cysts under ultrasound guidance or by detorsion at the time of laparoscopy. By simple detorsion, ovaries can be preserved in 80-90% of cases. In order to prevent recurrence adnexal fixation can be undertaken by plicating the ovarian ligament.

Keywords: Theca lutein cyst, Torsion, Conservative management, Aspiration

Abbreviations: hCG: Human Chorionic Gonadotropin; LMP: Last Menstrual Period; TSH: Thyroid Stimulating Hormone; USG: Ultrasonography

INTRODUCTION

Theca lutein cysts can occur in 20-25% of molar pregnancies. These cysts can present with acute abdominal pain due to torsion, rupture, haemorrhage, and tension within the cyst. In order to achieve symptomatic relief in these functional cysts, especially in large cysts, there have been reports of aspirating these cysts under USG/laparoscopy guidance. Here we report a case of theca lutein cyst which presented with acute abdomen on two occasions following evacuation of the vesicular mole. On both the occasions the patient was managed conservatively by aspiration of the cyst, thus preserving the ovarian function.

CASE REPORT

A 19 years old Mrs. S, married for 8 months, a primigravida, presented with a history of 3 months amenorrhoea with bleeding per vaginum of 2 days duration and excessive vomiting for the past 1 month, more severe for 1 week. Her previous menstrual cycles were regular and her LMP was on 1st August 2016. On examination there was no pallor, she was thin made weighing 45 kg. There was mild thyroid enlargement, her cardiac and respiratory systems were normal. On abdominal examination, the uterus was enlarged to 16 weeks size and was soft. On vaginal examination, there was mild bleeding per vaginum, the cervical os was closed and the uterus was enlarged to 16 weeks size and there was no internal ballottement. Fullness was felt in the fornices. She was sent for an USG examination which showed the uterus to be enlarged to 13 × 09 × 07 cm and was filled with an echogenic mass measuring 9.3 × 6 cm with small cystic spaces. A diagnosis of vesicular mole with bilateral ovarian cysts was made. The right ovary measured 7 cm and the left ovary measured 10 cm in size. Her haemoglobin was 11.5 gm, blood group was O Rh positive, and the serum β-hCG was 45,810 mIU/mL. Her thyroid function test showed low TSH levels of 0.11, normal being between 0.28 and 5.8. Her chest X-ray was reported normal. All other investigations were found to be normal.

With adequate pre-operative precautions suction evacuation was done and her post-operative period was uneventful. Histopathological examination was reported as vesicular mole with chorionic villi showing hydropic degeneration with areas of necrosis. In view of the presence of large bilateral theca lutein cysts and raised beta hCG levels it was decided to start her on prophylactic chemotherapy. She was started on injection methotrexate 50 mg IM on alternate days for 4 doses on Day 1, 3, 5, and 7. Injection leucovorin 6 mg IM was given on Day 2, 4, 6 and 8. As the patient continued to bleed for nearly 5 days after the evacuation, she was sent for a repeat USG which showed the uterus to be filled with ill-defined echogenic areas measuring 4 × 3 × 3 cm and the Doppler showed internal vascularity.

The ovaries measured 7.6 cm and 10.2 cm on the right and left side respectively, complex with internal septations. A diagnosis of retained products was made and she was taken up for re-evacuation. About 24 hours after the second evacuation patient developed severe lower abdominal pain. The patient did not have toxic features and there was no abdominal guarding or rigidity. However, as the patient had acute abdominal pain, perforation of the uterus/torsion of the ovarian cyst were suspected. USG at this stage showed the cysts to have increased in size to 10 cm and 12 cm on the on the right and left side respectively. There was no free fluid in the abdomen and the Doppler study was normal and there was no evidence of compromised blood flow (Figure 1).

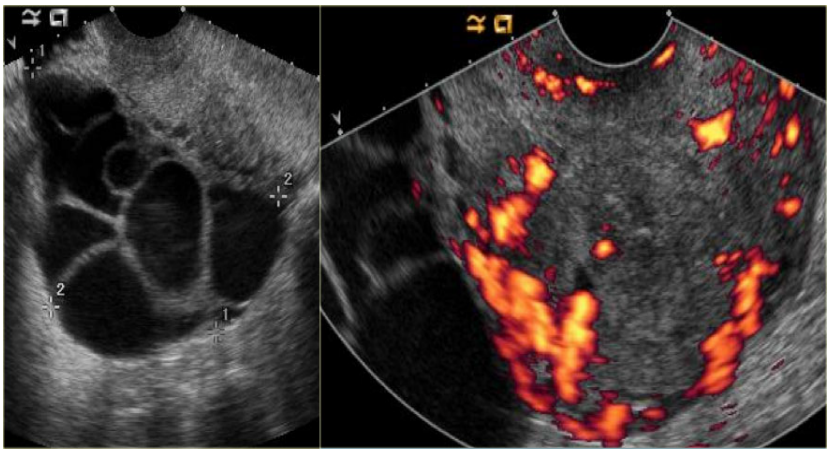

Figure 1 Enlarged ovary with cyst showing septations and normal Doppler blood flow

As the cysts have increased in size and the increased tension within the cysts could have caused the pain, decompression was planned and under USG guidance 80-100 mL of fluid was aspirated from each ovary (Figure 2).

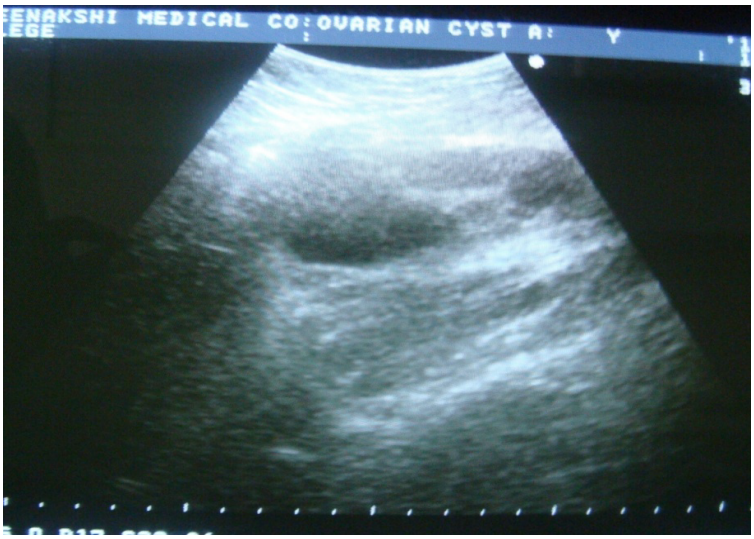

Figure 2 USG picture showing decompressed cyst after aspiration

Patient's symptoms improved, she remained asymptomatic and discharged home after 6 days. Serum β-hCG level was 15,159 mIU/mL. Four days later she patient presented again to the casualty with severe acute lower abdominal pain associated with 3-4 episodes of vomiting since the previous night. The patient was dehydrated, looked toxic and there was guarding and tenderness of the abdomen more on the right side. The USG showed the uterus to be empty, the ovaries were enlarged, and the Doppler showed normal vascularity of both ovaries. At this episode, a definite diagnosis of torsion was made, and the patient was taken for laparotomy. The abdomen was opened by a suprapubic transverse incision. The findings were: there was no free fluid in the abdomen, the right ovary was 7 cm in size and had undergone torsion twice, but did not show evidence of gangrene. The left ovary measured 10 cm in size (Figure 3).

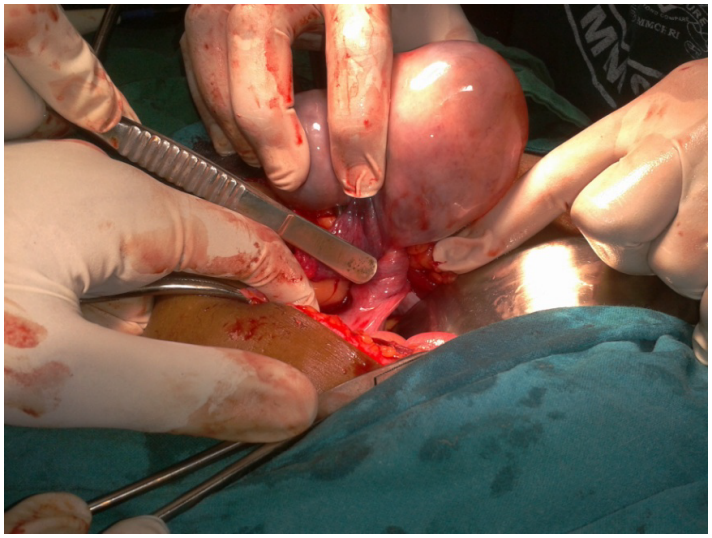

Figure 3 The right ovary which had undergone torsion twice

The torsion on the right ovary was undone and there was evidence of good viability of tissue. Once again aspiration of both the cysts was done. Both the ovarian ligaments were replicated. She did not develop further complications and no cysts were visualised on USG after 10 days. She was followed up with weekly serum beta hCG levels. There was gradual fall of hCG levels to reach nadir at 60 days. She was started on low dose contraceptive pills to prevent pregnancy. The beta hCG levels remained low at 3rd and 6th month follow up (Figure 4).

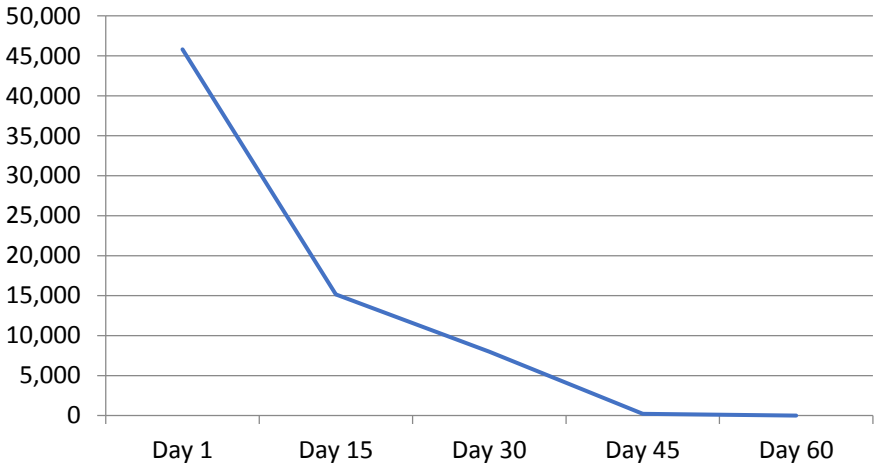

Figure 4 Graph showing decline in hCG levels

DISCUSSION

Theca lutein cysts are seen in 20-25% of gestational trophoplastic diseases. They are bilateral and large cysts are seen at the time of maximum hCG production. Our case presented at 14 weeks of gestation, therefore presented with large cysts. Though most cysts will regress after evacuation, large cysts may present with complications such as torsion. In spite of evacuation of the vesicular mole and initiating prophylactic chemotherapy our patient presented on two occasions with acute abdomen, initially due to acute increase in size and tension within the cysts and on the second occasion due to torsion. During the first episode of acute abdomen, she was managed conservatively with aspiration of the cyst. The interval between the two episodes of pain was 10 days. Therefore, it was unlikely that the first episode of pain was due to torsion, also, the patient remained well and asymptomatic for 10 days. Even in cases of suspected torsion, USG guided aspiration has been suggested. Sakae, et al., reported a case of torsion theca lutein cyst wherein the USG guided aspiration negated laparoscopic intervention. They have suggested that, in cases of ovarian torsion

occurring in large functional cysts, percutaneous cyst aspiration to reduce the ovarian volume should be considered before deciding on emergency laparoscopic surgery [1]. Khaw, et al. have reported 22 cases and recommended fine needle aspiration under USG guidance to be useful in ultrasonically benign ovarian cysts [2]. When the patient had the second episode of pain, in spite of the normal Doppler findings, based on the clinical presentation the patient was taken up for laparotomy. In order to check the viability of the ovaries Doppler ultrasound has been suggested. But, studies have shown that ovarian blood flow is not always compromised in ovarian torsion [3]. Sasaki, et al. and Shawky have shown that normal Doppler finding is seen in 34.7% to 60% of cases of torsion of the ovaries [4,5]. In our case Doppler ultra sound was reported normal during both episodes of acute pain, even when there was torsion.

There are many articles reporting nearly 80% - 90% chance of preserving the ovaries in adnexal torsion by simple detorsion at laparoscopy [6-8]. Authors have suggested that even with apparently necrotic tissue conservative management by detorsion should be the operative management and advised to wait at least for 10 minutes after detorsion to look for restoration of vitality [4,5]. Because of the possibility of recurrence of torsion, we plicated the ovarian ligaments on either side. In a study by Shawky, among 46 cases with adnexal torsion, adnexal fixation was done in 46.8% of cases to reduce the recurrence [5].

CONCLUSION

With careful evaluation and planning conservative management of torsion in a theca lutein cyst is possible thereby preserving the ovaries.

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