

CASE REPORT

Parasitic dermoid cyst: obstructed labor

Suwa Ram Saini, Pallavi Jindal, Priyanka Pachauri, Richa Gupta

Correspondence: Pallavi Jindal (M.S), Obs and Gynae, Third year resident, Sardar Patel Medical College, Bikaner, Rajasthan, Email: jindalpallavi17@gmail.com

Distributed under Creative Commons Attribution-Share Alike 4.0 International.

ABSTRACT

Dermoid cysts and cystadenoma are the most frequent organic benign ovarian tumors diagnosed during pregnancy. Dermoid cyst becoming parasitic and causing obstructed labor is one of the very rare phenomenon observed during pregnancy contributing to significant perinatal morbidity. Here we are presenting a case of 25 years old third gravid female at term pregnancy with obstructed labor. She was immediately taken for caesarean section and delivered a healthy female child. 10x12 cm cystic mass was found impacted in pouch of douglas separate from adnexal without any connection with other organ. Enucleation was not possible, so aspiration taken and sent for microbiological and histopathological examination. On reporting it was found to be dermoid cyst.

Keywords: Dermoid cyst, Parasitic, Obstructed labor.

The incidence of ovarian tumors diagnosed during pregnancy is between 0.3 and 5.4% [1]. The most common ovarian tumors diagnosed during pregnancy are functional cysts diagnosed incidentally during the first trimester ultrasound and spontaneous regression is often observed. The main complication of presumed benign ovarian tumor (PBOT) during pregnancy is adnexal torsion and is estimated at around 8% [1], especially at the end of the first trimester and during the second trimester. Other less common complications include rupture, infection, hemolytic anemia and malignant degeneration. Parasitic dermoid cysts are extremely rare entities, and their actual incidence is unknown. We are reporting a rare case of parasitic dermoid cyst presenting with full term pregnancy in obstructed labor.

Case report

A 25 year old third gravid female with 2 living children by normal vaginal route presented in outdoor with pain abdomen. Her vitals were stable. Per abdomen was soft. On per vaginal examination cystic mass of 8x8 cm was felt in posterior fornix. On ultrasound, space occupying lesion 86 mm x 93 mm was found in posterior fornix. She was advised CA-125 level and counselled for laparotomy but she was non compliant and returned 2 months later with pain abdomen. On ultrasound single viable pregnancy of 12 weeks with large cystic space occupying lesion (SOL) in right ovary. She was again advised laparotomy but she was again lost to follow up.

Then finally she presented at term with labor pain

Received: 21st February 2016; **Accepted:** 21st March 2016.

Saini SR, Jindal P, Pachauri P, Gupta R. Parasitic dermoid cyst: obstructed labor. The New Indian Journal of OBGYN. 2016; 3(1): 58-60. doi:10.21276/obgyn.2016.3.1.12

with signs of obstructed labor. She was exhausted, dehydrated, had tachycardia. On per abdomen uterus was tense, bandl's ring was present, fetal heart sounds were irregular, uterine contractions were felt with increasing frequency and intensity. On ultrasound single viable pregnancy of 37 weeks with breech presentation with 12 x 10 cm cystic lesion in pouch of douglas, fetal heart count was 142. On per vaginum

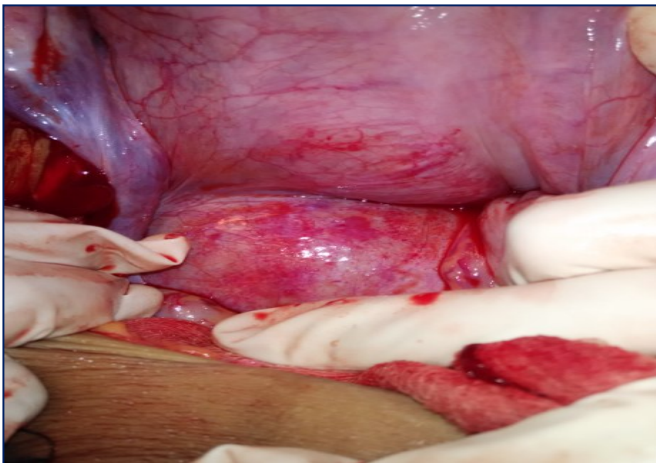


Figure 1: Cyst impacted in pouch of douglas

examination cervix was fully effaced, fully dilated, pushed upward, presenting part was breech above brim. Mass could be felt posteriorly in pouch of douglas, exact size could not be made out but was firm in consistency, origin could not be made out on per vaginum examination. She was immediately taken for caesarean section. Abdomen was opened by infraumbilical midline incision. Lower uterine segment was very thinned out. She delivered a healthy female child as breech, cried immediately. 10x12 cm cystic mass was found impacted in pouch of douglas separate from adnexa (Fig 1). Cyst had no connection with any organ. Enucleation was not possible, so decision for aspiration taken and chylous fluid aspirated and sent for microbiological and histopathological examination. On reporting it was found to be dermoid cyst (Fig 2).

Discussion

Mature cystic teratoma is one of the most common

ovarian tumors, accounting for 10–20% of all ovarian neoplasms. It occurs in young women (20–30 years of age) in approximately 80% of the cases. Teratomas are derived from germ cells and may contain structures from all three embryonic germ layers.

Parasitic dermoid cysts are extremely rare entities. Torsion of the dermoid cyst might be the preceding event for occurrence of parasitic dermoid cyst. If torsion of the dermoid cyst is subacute or chronic, it may rarely result in autoamputation with subsequent reimplantation elsewhere and inducing an inflammatory response which causes the tumor to become adherent to the surrounding structures with development of neovascularisation. The tumor may then become parasitic by detaching itself from its original blood supply. Another theory that might explain the occurrence of a parasitic dermoid cyst is through its development within a supernumerary or ectopic ovary, which may occur following implantation of ovarian tissue after surgical procedure or inflammation such as pelvic inflammatory disease. Supernumerary ovaries may also occur as a result of abnormal arrest of germinal cells in the dorsal mesentery during their embryonic migration to the genital ridge. Autoamputation and reimplantation is the most probable mechanism explaining the occurrence of parasitic dermoid cyst in this case.

Of the few cases of parasitic dermoid cysts reported in the literature, omentum was found to be the most common site followed by the pouch of douglas. Heqde P et al reported a rare case of omental mature teratoma in a 26 year old who underwent ovarian dermoid cyst removal [2]. Turhan NO et al reported a case of benign cystic teratoma in a 30 year old woman who underwent laparoscopy for a persisting pelvic mass in the posterior cul de sac [3]. Peitsidou A et al reported a rare case of autoamputated ovary with dermoid cyst implanted in the cul-de-sac incidentally diagnosed during caesarean section [4]. Right ovary was found missing from the site whereas in our case both ovaries were intact and cyst made the patient to present with obstructed labor.

With respect to management dermoid cysts <6 cm

can be managed conservatively. Caspi B et al

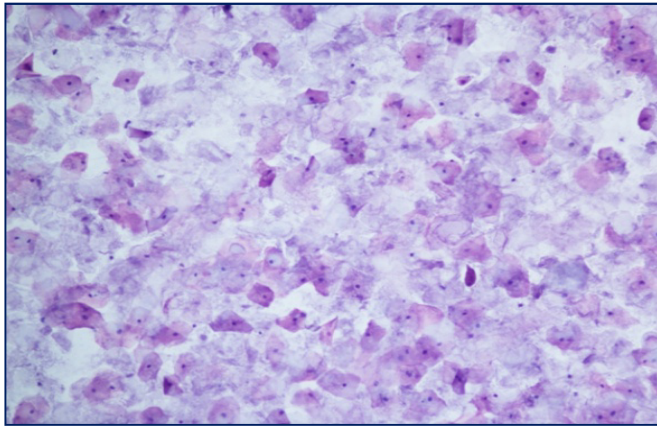


Figure 2: Microscopic examination

conducted a study in a group of 49 women with dermoid cysts (mean age, 30 years). Sixty-eight pregnancies resulted in them. Of the 68 pregnancies, 4 ended in miscarriages, 1 was electively terminated, and in the remaining 63 pregnancies, a total of 64 healthy infants were delivered. Fifty-five pregnancies ended in normal vaginal deliveries and 8 were delivered by cesarean (cesarean delivery rate of 16%). None of the classical complications attributed to dermoid cysts such as torsion, dystocia, or rupture occurred in the study group. In a follow-up of 56 dermoid cysts throughout pregnancy, cyst size remained unchanged [5].

Katz et al conducted a study to observe the perinatal outcome of patients with dermoid and other benign ovarian cysts. They concluded that the course of pregnancy of patients with dermoid and other benign ovarian cysts, including perinatal outcomes, is favourable. The cysts should be managed conservatively if possible with routine ultrasound follow up during the pregnancy since complications are extremely rare [6].

Autoamputation of the dermoid cyst followed by reimplantation is an extremely rare event. In our case as the cyst was >6cm, it should have been removed in the 2nd trimester but due to patient's non compliance patient presented with such a serious complication. So we want to convey the message that although

complication rate of dermoid cyst in pregnancy is too low but one of them can have serious fate, so obstetrician should be vigilant while deciding the management of dermoid cyst in pregnancy.

Conclusion

With advent of modern obstetrics surgical management of dermoid cyst in midpregnancy has been found to be quite safe instead of waiting for the growth during pregnancy. Early diagnosis and judicious treatment play a key role in the prevention of significant morbidity.

Conflict of interest: None. **Disclaimer:** Nil.

References

1. Tariel O, Huissoud C, Rudigoz RC, Dubernard G. Presumed benign ovarian tumors during pregnancy. *J Gynecol Obstet Biol Reprod (Paris)*. 2013; 42(8): 842-55.
2. Hegde P. Extragonadal omental teratoma: a case report. *J obstet gynaecol res*. 2014; 40(2): 618-21.
3. Turhan NO, Dilmen G, Ustün H. Benign cystic teratoma of the douglas. *Eur J Obstet Gynecol Reprod Biol*. 2000; 93(2): 215-7.
4. Peitsidou A, Peitsidis P, Goumalatsos N, Papaspyrou R, Mitropoulou G, Georgoulis N. Diagnosis of an autoamputated ovary with dermoid cyst during a Cesarean section. *Fertile steril*. 2009; 91(4): 1294.e9-12.
5. Caspi B, Levi R, Appelman Z, Rabinerson D, Goldman G, Hagay Z. Conservative management of ovarian cystic teratoma during pregnancy and labor. *Am J Obstet Gynecol*. 2000; 182(3): 503-5.
6. Katz L, Levy A, Wiznitzer A, Sheiner E. Pregnancy outcome of patients with dermoid and other benign ovarian cysts. *Arch gynecol Obstet*. 2010; 281(5): 811-5.

Suwa Ram Saini¹, Pallavi Jindal², Priyanka Pachauri³, Richa Gupta⁴

¹Assistant professor, Obs and Gynae, Sardar Patel Medical College, Bikaner; ²Third year resident, Obs and Gynae, Sardar Patel Medical College, Bikaner; ³Third year resident, Obs and Gynae, Sardar Patel Medical College, Bikaner; ⁴Third year resident, Obs and Gynae, Sardar Patel Medical College, Bikaner; Rajasthan