

## **Left Dermoid Ovarian Cyst in a Woman with Term Pregnancy on the Bi-Scar Uterus**

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### **ABSTRACT**

Ovarian dermoidal cysts are benign lesions arising from germ cells. If they are large, they can pose a problem of differential diagnosis with the hydatid cyst. Transformation to a malignancy is possible. Complications are numerous, going as far as peritonitis or even fistulization in a hollow organ. We present a case of dermoid cyst of the ovary in a 33-year-old parturient with twice scarred uterus who was treated surgically and whose postoperative evolution was good.

**KEYWORDS:** ovarian dermoid cyst.

### **ARTICLE DETAILS**

**Published On:**  
**02 December 2022**

**Available on:**  
<https://ijmscr.org/>

### **INTRODUCTION**

Ovarian dermoid cysts (benign cystic teratoma) are benign congenital tumors arising from cells (1, 3). These tumors consist of tissues of ectodermal (skin, nervous tissue), mesodermal (muscle, adipose tissue) or endodermal (digestive tract, bronchus) origin. They are called dermoid cysts because of the predominance of cutaneous ectodermic derivatives (sebaceous glands, skin appendages, keratin) with a liquid component (sebum).

They represent 20% of all ovarian tumors in adults and 50% of ovarian tumors in young girls. This tumor is usually unilateral with a right predominance, but in 15 to 20% of cases, it can be bilateral (5).

They have a dimension of 5 to 10 cm on average and are classified in the category of organic cysts.

Dermoid cysts have liquid or solid fatty contents and can be the source of inflammatory and infectious complications.

Compared to the volume (large dermoid cysts), these cysts are even rarer and can pose a diagnostic problem with hydatid cysts of the abdominal wall(9).

Malignant transformation occurs in 1–3% of cases, usually to squamous cell carcinoma (3).

The complications are numerous and the most frequent is the torsion of the cyst, but there are other complications such as cystic rupture, infections, adhesions and the compressive effect on the juxtaposed organs, and finally, the obstacle previa during pregnancy and childbirth in some pregnant women with dermoid cysts. (12)

Clinically, most mature teratomas are asymptomatic the clinical picture can be made of abdominal pain, in very rare cases the symptoms are related to hormonal secretion (estrogens, prolactin, etc.) or paraneoplastic syndrome (2.9 ). Thus it is the most common benign tumor reported to have ovarian torsion. In this case, surgery should be performed to prevent ovarian damage (7).

These dermoid cysts are unilateral in most cases with an equal frequency in both ovaries, but they are bilateral in 10 to 15% of cases (8,10)

We report an unusual case of a 33-year-old woman with a term pregnancy on a twice scarred uterus and during cesarean section we had objectified a twisted left ovarian dermoid cyst

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### PRESENTATION OF THE CASE

A 33-year-old pregnant woman, referred to the MAKISO-KISANGANI General Reference Hospital, having not followed the CPNs and is in her 3rd pregnancy and Parity: 2 (the two living children whose deliveries took place by the upper route following mechanical dystocia: narrowed pelvis), with a known hypertensive pathological history and obesity and who has undergone cesarean section twice with a birth interval of less than 3 years, admitted after referral to our structure for pelvic pain on a term pregnancy evolving for two weeks, with notion of late menstruation (DDR: 01/20/2022)

On clinical examination: patient in good general condition, hemodynamically and respiratory stable. On abdominal examination: abdomen increased in volume following the increase in volume of the uterus with a pfennig-type incision scar, and exacerbated sensitivity on the left flank. On obstetrical examination: Fundal height: 36 cm, Presentation:

transverse, Fetal heart sounds: 112 beats/minute, Dilatation 6 cm, Effacement: 100%

The para-clinical examinations requested during the prenatal consultations were within the norms. (Two weeks before the start of labor)

On imaging (ultrasound): the uterus is inhabited by a viable fetus aged 36 weeks and 5 days and presented in buttock mode, with the left ovary increased in volume by 77x53 mm and not vascularized. (One week before delivery)

In front of this table a caesarean section was programmed. After the caesarean section, we had visualized at the level of the left annexes, the presence of a twisted ovarian cyst of approximately 7x5 cm and we carried out a detorsion of the left annex, revascularization then the realization of a left cystectomy whose images in below. On the right side, the appendages were normal.



*Ruptured left dermoid cyst: after caesarean section before enlargement of the corresponding ovarian sac incision. We see the liquid fatty content*



*Dermoid cyst: the wedge-shaped incision of the left ovary. We see solid content*



*Dermoid cyst: Macroscopic appearance of a dermoid cyst after opening showing a cyst-like lesion containing the sac with liquid and topped with hairs (posterior view)*



*Dermoid cyst: Macroscopic appearance of a dermoid cyst after opening showing a cyst-like lesion containing hairs (anterior view)*

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The post-operative follow-up was uneventful.

After 9 days of hospitalization followed by the total removal of the threads, our patient left the hospital cured.

### DISCUSSION

The dermoid cyst of the ovary is a benign ovarian cyst of 5 to 10 cm in diameter on average located at the level of an ovary and which appears in adult women.

It is extremely rare before puberty and is categorized as an organic ovarian cyst. Dermoid cysts have liquid or solid fatty contents. (2,10)

From the epidemiological point of view, the dermoid cyst accounts for 20 to 25% of ovarian tumors in adults (5, 7) and is usually unilateral, but in 15 to 20% it can be bilateral (4). This frequency nevertheless varies according to age, so that benign teratomas represent 22.9 to 25% of ovarian tumors and cysts before the age of 15 and even 38% before the age of 20. Both ovaries have the same risk of damage or, on the contrary; right ovarian teratomas (56.148%) would be more frequent than left ones (39.36%) (Milad MP, Olson E) quoted by Jules NGWE THABA MOYAMBE et al (5)

Complications are numerous, they can be infectious, inflammatory and can rupture in the cavity leading to peritonitis or fistulize in a hollow organ. The most common complication is tumor degeneration and most often at the expense of the squamous epithelium into epidermal carcinoma. (1)

The differential diagnosis of dermoid cysts must be made with other cystic tumors such as hydatid cysts. The elevation of carcinoembryonic antigen and squamous carcinoepithelial antigen as well as a dermoid cyst with a diameter greater than 10 cm would be strongly in favor of a malignant transformation in particular for ovarian dermoid cysts (1, 8,9).

### TREATMENT

In recent years, there has been a change in the management of mature cystic teratomas, with an increased tendency towards ovarian preservation. In the presence of a dermoid cyst, the technique of cystectomy by medial incision decreases the risk of intraoperative rupture (6)

Studies have shown that the laparoscopic procedure is safe, cost effective with less hospital stay, postoperative pain and analgesic(7,11).

In our case, we resorted to laparotomy with a pfennential type incision. The left ovarian dermoid cyst was large measuring approximately 9 cm with a normal appearance of the ovary as well as the fallopian tube, therefore a left cystectomy was performed retaining a significant amount of normal ovarian stroma for menstrual function and future fertility.

### CONCLUSION

The dermoid cyst of the ovary is rare and can be confused with a hydatid cyst (differential diagnosis). The symptomatology is nonspecific. The clinical warning signs are dominated by acute pain, which associated with a syndrome of peritoneal irritation evokes torsion, a mass or development of secondary sexual characteristics.

It can transform in relation to its evolution to squamous cell carcinoma or squamous cell cancer.

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