



Ovarian Conservation in A Case of Twisted Dermoid Cyst

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ABSTRACT

A dermoid cyst is a cystic teratoma that contains an array of developmentally mature, solid tissues. It frequently consists of skin, complete with hair follicles, and sweat glands. Other commonly found components include: clumps of long hair, pockets of sebum, blood, fat, bone, nails, teeth, eyes, cartilage, and thyroid tissue. Superficial dermoid cysts (ones near the surface of the skin) on the face can usually be removed without complications. Removal of other, rarer dermoid cysts requires special techniques and training. These rarer dermoid cysts occur in four major areas: Dermoid cysts in the brain, nasal sinuses, ovarian dermoid cysts, dermoid cysts of the spinal cord.

While all ovarian cysts can range in size from very small to quite large, dermoid cysts are not classified as functional cysts. Dermoid cysts originate from totipotential germ cells (which are present at birth) that differentiate abnormally, developing characteristics of mature dermal cells. Complications exist, such as torsion (twisting), rupture, and infection, although their incidence is rare.

Key words; *dermoid cyst, ovarian conservation.*

INTRODUCTION

A dermoid cyst is a sac like growth that is present at birth, but may not be noticeable until much later. Dermoid cysts grow slowly and are not tender unless rupture or torsion occurs. Dermoid cyst makes up 10 – 15% of all ovarian tumours and tends to occur at a relatively early age. dermoid cysts are bilateral in 12% of cases and may be multiple in one ovary. Ovaries normally grow cyst-like structures called follicles each month. Once an egg is released from its follicle during ovulation,

follicles typically deflate. Sometimes fluid accumulates inside the follicle, forming a simple (containing only fluid) cyst. While all ovarian cysts can range in size from very small to quite large, dermoid cysts are not classified as functional cysts. Dermoid cysts originate from totipotential germ cells (which are present at birth) that differentiate abnormally, developing characteristics of mature dermal cells. Dermoid cyst contains the usual cutaneous elements – sebaceous glands, hair follicle and sometimes teeth, tissues of the central nervous system and

rarely cartilage and gastrointestinal epithelium. Dermoid ovarian cysts which are larger or present complications might require removal by either laparoscopy or laparotomy.

CASE REPORT

As per the history given by the mother who was a reliable informer a 7 years old female who weighed 16kgs came with the chief complaints of pain in abdomen associated with nausea, vomiting and low grade fever on and off since 4-5 days. There was no significant past, personal and family history.

On examination patient was conscious, cooperative and well oriented to time, place and person. Her general condition was fair and she was afebrile. Her pulse was 120 beats/minute and regular. Blood pressure; 100/60 mm of Hg. Pallor was present. Her respiratory rate was 24 cycles/minute and cardiovascular system was normal.

Per abdomen examination revealed a soft, mild distension in lower abdomen, and tenderness in right iliac fossa. Her routine investigations were within the normal limit. Symptomatic treatment was given in the meanwhile.

Ultrasonography of abdomen and pelvis along with colour doppler study showed a well defined lesion of size approximately 4.8×4.4 cm in right adnexa; showing both anechoic cystic and echogenic fat components. Right ovary was not seen separately. Vascularity was noted in its wall. Signs of ovarian dermoid torsion was likely since there was history of intermittent severe pain in lower abdomen.

Patient was taken up for exploratory laparotomy for excision of right twisted ovarian dermoid cyst. Operative findings: Right ovarian twisted dermoid cyst of 5×4 cm in size was present. Detwisting of adnexa was done. Dermoid cyst was enucleated and specimen was sent for HPE. Right ovarian reconstruction was done and ovary was fixed to right lateral wall as a preventive measure to prevent recurrence of torsion. Meticulous post operative monitoring and adequate antibiotic coverage was provided to the patient. On post operative day five an ultrasonography with colour doppler was repeated which revealed restored blood supply. After a period of a month another ultrasonography was done showing return of normal ovarian structure.

HPE report stated, the cyst was filled with thick, yellowish, greasy sebaceous fluid which is secreted by glands in its wall; within it lies hair which grew from the nodal point.



DISCUSSION

Dermoid cyst makes up 10 – 15% of all ovarian tumours and tends to occur at a relatively early age. Dermoid cysts are bilateral in 12% of cases and may be multiple in one ovary¹. A mature cystic teratoma is the most common type of ovarian teratoma, with peak incidence in the age group of 20–29 years². They may present with hyperthyroidism, if there is functional thyroid tissue in the lesion. Intestinal elements in the dermoid cyst can cause the carcinoid syndrome. Strumal and mucinous subtypes have been described³. Patients may present with acute abdomen following torsion of the ovary. The relatively small size and mobility make them more prone to torsion. Intermittent and incomplete

torsion causes degenerative changes in the cyst wall leading to adhesions with adjacent bowel or omentum. Severe chemical peritonitis can occur following leakage of the sebaceous contents of a dermoid cyst leading to dense adhesions^{4,5}. In our case patient was a young girl with unilateral dermoid cyst. Dermoid cyst have more chances of torsion because of the long pedicle which make it vulnerable for torsion. As in our case as the patient was very young a decision of ovarian reconstruction was made in order to preserve the ovarian function.

CONCLUSION

The core purpose of this case report is although ovarian teratomas are common, but in our case

because of the age group of presentation was rare so the modality of treatment was different than usual. Also highlighting the importance of meticulous post operative care which can help in such cases of ovarian conservation.

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