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Parasitic dermoid cyst

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Abstract

Introduction: Dermoid cyst is a teratoma of cystic nature arising from Germ cell. It is the most common Ovarian Germ cell tumour of reproductive age, accounts for 10 to 20 % of all ovarian neoplasms with 1 to 2 % malignancy risk. A Parasitic dermoid cyst is a new entity and actual incidence is not known. It is very rare and only 12 cases have been reported. We are reporting one such case.

Aims & Objectives: Our aim is to report a rare case of dermoid cyst in the Pouch of Douglas with the objective of adding one more differential diagnosis in the entity of masses of the Pouch of Douglas and how to manage such a rare case of gynaecology.

Background: A parasitic dermoid cyst is a very rare entity. Omentum is the most common parasitic site followed by the pouch of douglas. 32 cases of dermoid cyst in omentum & 12 cases of teratoma in the pouch of douglas have been reported since the 1st case of it which was described by Lefowitch & *et al.* Etiopathogenesis is unknown, but some theories have been proposed. One theory says auto amputation resulting from torsion of ovarian dermoid cyst with subsequent re-implantation in a Douglas' pouch, in these cases, one of the ovaries was small or absent or the teratoma contained ovarian tissues. Other theories say that teratomas in Douglas' pouch may originate from an ectopic ovary or from displaced primordial germ cells.

Case: Young unmarried girl with complaints of irregular cycle and pain in abdomen since 6 months was investigated. On general & systemic examination no significant abnormality detected. Sonography showed 7 by 7 cm complex ovarian cyst on the right side with an impression of dermoid cyst. Blood investigations along with tumour marker were within normal range. Surprisingly on laparoscopy uterus and both tubes and ovaries appears normal and cyst of 7 by 7 cm found in pouch of douglas attached to posterior surface of uterus. Enucleation of cyst was done and sends for histological examination. Results were dermoid cyst.

Conclusion: This is a rare case of dermoid cyst in douglas pouch. This case puts some light and helps other gynaecologists in managing such kind of case.

Keywords: dermoid, teratoma, douglas, gynaecologists, enucleation

Introduction

Dermoid cyst is a benign tumour of the ovary which contains all the three germinal layers that may give rise to tooth, bone, thyroid tissue, etc. It usually occurs in reproductive age group and usually confines to one ovary, however bilateral ovary involvement is also seen in nearly 15% of cases[1]. A Parasitic dermoid cyst is a rare entity. We are reporting a very rare case of dermoid cyst found in the pouch of douglas.

Case report

An 18 years old, unmarried girl presented to Gynaecology OPD at *Index* Medical College Hospital and Research Centre, Indore (MP), with complaints of pain in abdomen since 6 months and irregular menstrual cycle since 4-5 months. The Pain was dull in nature, in lower abdomen; non radiating not associated with bowel and bladder complaints. She was having irregular menstrual cycle, in the form of Oligomenorrohoea and Dysmenorrhoea. No other significant history.

On general examination, she was average built, well nourished, conscious, oriented to time place person. Secondary sexual characteristics are well developed, no thyromegaly and all other findings found to be normal. Abdomen was soft flat non tender, no organomegaly. Per speculum/vaginum examination not done as she was unmarried. She was admitted and routine blood investigation like complete blood count; random blood sugar, urine microscopy etc were sent. Ultrasonography of whole abdomen was done which shows a 7 *7 cm cystic appearing lesion with internal medium level echoes in right adnexa. Vascularity was not seen within the lesion. Right ovary not visualized separately. Left ovary and the uterus appears normal. Features suggestive of right ovarian complex cystic lesion? Dermoid cyst or? Endometrioma. Tumour markers like beta HCG, AFP, CA 125 were within normal range. She was planned for laparoscopic cystectomy under general anaesthesia. 3 port laparoscopy reveals, normal uterus, both tubes and ovaries appears normal. Surprisingly cyst of approximately 7 by 7 cm found to be located in a pouch of douglas attached to the posterior surface of the uterus and flimsy adhesions found. The cyst was extending into the leafs of the broad ligament. No ligamentous attachment and vascular pedicle seen. The procedure was converted into laprotomy. Enucleation of cyst was done. It was removed completely with no vascular and ureteric damage. Cyst contain little fluid and toothpaste like material, send for histopathological examination. Report

shows the cyst wall of hyperkeratotic squamous epithelium which is stratified at places and flat at others. The cyst cavity contains anucleate squamous and keratin flakes. The pericystic area shows fibrous tissue; suggestive of dermoid cyst. Postoperatively patient recovers well and kept in follow up.

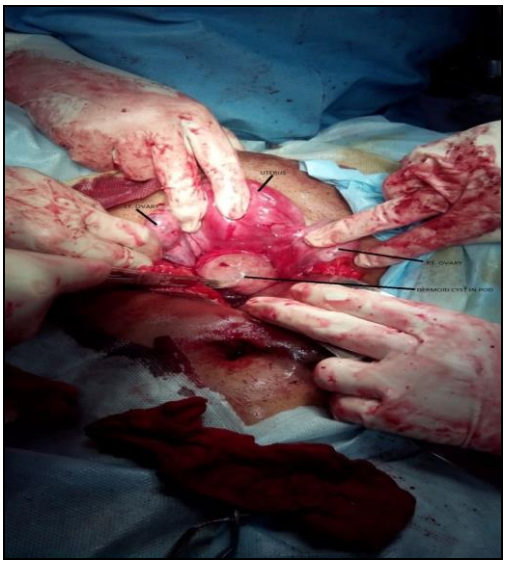

Fig 1: Showing uerus and both ovaries nornal and cyst in the pouch of douglas.

Fig 2: Toothpaste like material from cyst.

Discussion

Dermoid cyst is a benign ovarian mass with malignant potential (1-2%). It arises from germ cells and contains structures from three embryogenic layers like hairs, tooth, sebaceous gland, etc. Its incidence is about 30-40%. It is bilateral in 15-20% of cases [1]. Dermoid cyst can affect any area of the body, mostly midline and paramedian, like ovaries, spinal cord, nasal sinuses, etc [2]. Out of these, ovarian dermoid cyst most common and constitutes 97 % of teratomas. A parasitic dermoid cyst is a rare entity and actual incidence is not known. Various theories have been proposed to explain this. One is development within the ectopic ovary which may occur after implantation of ovarian tissue after surgical procedure or inflammation such as pelvic inflammatory disease. Supernumerary ovaries may also occur as a result of the abnormal arrest of germinal cells in the dorsal mesentery during their embryonic migration to the genital ridge [3]. Third is the auto amputation and reimplantation of the dermoid cyst as a result of torsion. If torsion of the tumour is subacute, an inflammatory response may occur which causes the tumour to become adherent to surrounding structures and neovascularisation may occur. The tumour may then become parasitic by detaching itself from its original blood supply [4].

In the cases, so far have been reported, omentum was found to be the most common site followed by the pouch of Douglas [5]. 32 case of omental dermoid cyst have reported [6, 7]. 12 cases of dermoid cyst in the pouch of douglas have been reported so far [4, 8, 9, 10]. 1st case was described by Lefowitch & *et al.* [8]. One case where a parasitic dermoid was found stuck to the anterior abdominal wall was recently reported by Gupta *et al.* 2009 [11]. Recently a case of the dermoid cyst with both ovaries normal reported by Ohshima *et al.* 2015 Japan [12]. This is the case of dermoid cyst in the pouch of douglas with normal ovaries. Management includes removal of cyst either laproscopically/laparotomy.

Conclusion

We are reporting this as it is very rare and help other gynaecologist and surgeons in dealing such kind of cases.

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