



Case report

Ovarian teratoma presenting as small bowel obstruction in an elderly lady—A case report

Riad Al-Harfoushi^{a,*}, El-Ham Abdulaziz^a, Syed Imran Hussain Andrabi^a, Barry Patterson^b, Michael Whiteside^a^a Department of Surgery, Antrim Area Hospital, Bush Road, Antrim, UK^b Department of Radiology, Antrim Area Hospital, Antrim, UK

ARTICLE INFO

Article history:

Received 22 July 2010

Accepted 24 July 2010

Keywords:

Ovarian teratoma

Dermoid cyst

Mature cystic teratoma

Bowel obstruction

ABSTRACT

Teratomas of the ovary are of the mature or immature type. The mature variety is called dermoid cysts, which is the most frequent benign germ cell tumour of the ovary in the reproductive age group. They are usually asymptomatic until they reach a significant dimension.¹ Pressure effect, torsion and rupture of an ovarian cyst may present as an acute abdomen. A case is presented where an elderly lady presented with small bowel obstruction due to a very large, non-adherent to the intestine, dermoid cyst.

Crown Copyright © 2010 Published by Elsevier Ltd on behalf Surgical Associates Ltd.

Open access under [CC BY-NC-ND license](http://creativecommons.org/licenses/by-nc-nd/4.0/).

1. Introduction

Mature cystic teratoma makes up 10–15 per cent of all ovarian tumours and tends to occur at a relatively early age.²

They have a growth rate of 1.8 mm/year in pre-menopausal women,³ they rarely grow larger than a melon.² Although usually asymptomatic, recognised complications of ovarian dermoid cysts include rupture, torsion, infection and malignant transformation.⁴ In rare cases it could become adherent to the intestine and cause intestinal obstruction.

2. Report of case

A seventy one-year-old lady presented with spasmodic lower abdominal pain, nausea, and vomiting.

On examination her abdomen was distended with an intra-abdominal tender and mobile mass in her right iliac fossa.

An abdominal radiograph showed evidence of small bowel obstruction and abrupt transition in the right iliac fossa where there is the impression of a soft tissue mass and heavy calcification (Fig. 1).

A decision for laparotomy was made, and while preparing for surgery an urgent CT scan was performed revealing small bowel

obstruction down to the right iliac fossa, and a sudden cut-off to a collapsed ileum. There was free fluid and gas adjacent to the small bowel within the deep right iliac fossa/adnexa. It also revealed a 12 cm × 7.8 cm mass in the right iliac fossa immediately deep to the anterior abdominal wall containing a small volume of very dense material. Findings were suggestive of an ovarian teratoma Figs. 2 and 3.

At laparotomy a huge infracted, torqued right ovarian cyst was identified, it was causing small bowel obstruction by compression of the terminal ileum without infiltration. The cyst was resected without difficulty. There was no other abnormality. Patient had an uneventful recovery.

Pathology showed a haemorrhagic, necrotic ovarian cyst weighing 522 g and measuring 135 mm × 100 mm × 70 mm. On opening, the cyst was partially bilocular, filled with sebaceous matter, hair and calcified elements.

Histology showed torsion and venous infraction of a mature cystic teratoma, with no malignancy.

3. Discussion

The germ cell tumours comprise teratoma, endodermal sinus tumour, non-gestational choriocarcinoma and disgerminoma. Differentiation along embryonic lines gives various forms of teratoma. In the benign teratomas the tissues which develop appear to be those normally found in the cranial end of a fetus – hair, skin, teeth, cartilage and nervous tissue.²

* Corresponding author. Tel.: +44 07975782301.

E-mail address: al.harfoushi@hotmail.com (R. Al-Harfoushi).

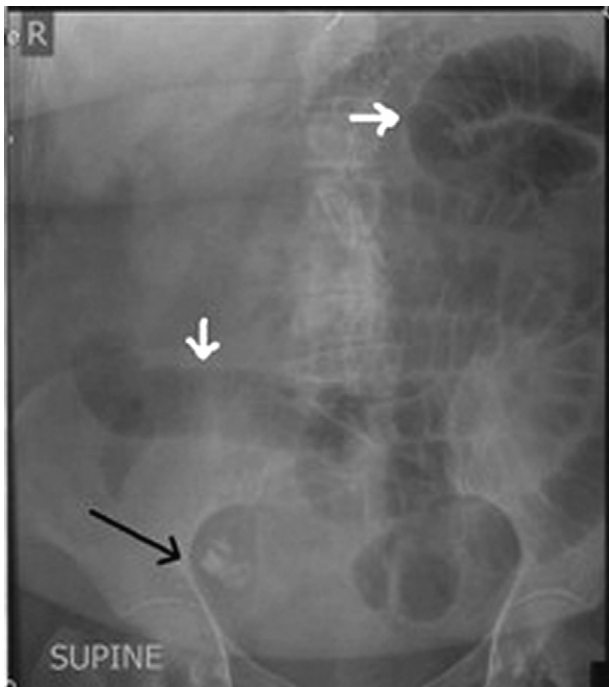


Fig. 1. Abdominal radiograph. Demonstrating small bowel obstruction, white arrow, with heavy calcification in the region of the RIF, black arrow.

A mature cystic teratoma is the most common type of ovarian teratomas and also the most frequent tumour originating from germ cells, usually unilateral.⁶

Radiological investigation is essential, an abdominal radiograph may show calcifications, suggesting the possibility of a benign teratoma⁷ as it is in this case. Most mature cystic teratomas can be diagnosed at ultrasonography (US) but may have a variety of appearances, characterized by echogenic sebaceous material and calcification. At computed tomography (CT), fat attenuation within a cyst is diagnostic.⁸

Ovarian teratomas can be removed either laparoscopically or at laparotomy depending on the size.⁹

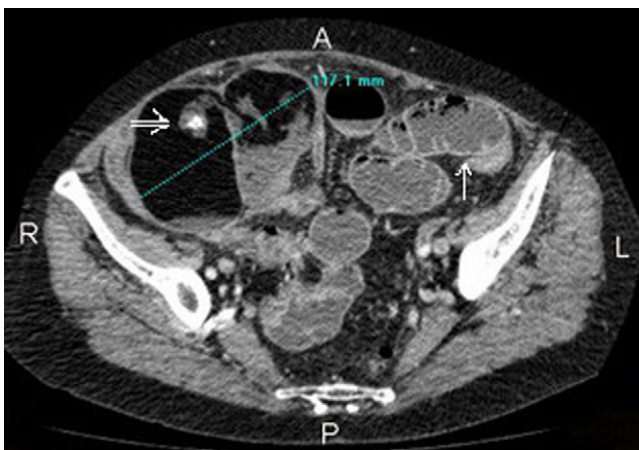


Fig. 2. CT, axial view. Demonstrating dilated small bowel loops, small arrow, and a cystic lesion with dense calcification in the RIF, large arrow.



Fig. 3. CT, coronal view. Demonstrating dilated small bowel loops, small arrow, and a cystic lesion with dense calcification in the RIF, large arrow.

4. Conclusion

Ovarian teratomas can be asymptomatic or cause chronic mild abdominal discomfort. If complications manifest, they are usually due to torsion and/or rupture of the cyst.

Acute intestinal obstruction is a very rare complication of ovarian dermoid cysts, it will mainly occur when a loop of a small bowel becomes adherent to the cyst and twists with the torsion of the cyst⁵ requiring intestinal resection.

In this unique case the teratoma was not adherent to any intestine or abdominal wall but causing small bowel obstruction by compression of the terminal ileum alone. When the teratoma was removed, the intestinal obstruction resolved.

To the best of our knowledge such a case has not been previously reported.

Conflicts of interest statement

None declared.

Funding

None.

Ethical approval

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

References

- Sait K, Simpson C. Ovarian teratoma diagnosis and management: case presentations. *J Obstet Gynaecol Can* 2004 Feb;**26**(2):137–42.
- Tindal VR. *Jeffercoat's principles of gynaecology*, fifth edition 466 June 24, 1987.

3. Williams KM, Bain CJ, Kelly MD. Laparoscopic resection of a torted ovarian dermoid cyst. *World J Emerg Surg* 2007;**2**:12. doi:10.1186/1749-7922-2-12.
4. Wakelin SJ. An unusual case of small bowel obstruction. *The Internet Journal of Gastroenterology™* 2007 **6**:1 ISSN: 1528–8323.
5. Gupta RK, Gupta P. Cystic ovarian teratoma in a girl of 5 years presenting as acute intestinal obstruction. *J Indian Med Assoc* 1977;**68**(11):235–6.
6. Krnojelac D, Hadžić B, Curcin N, Dolai M, Bogdanović G. Malignant transformation of thyroid tissue in an ovarian dermoid cyst: case report. *Med Pregl* 1999;**52**(September–October (9–10)):395–8.
7. Robert W, Shaw W, Patrick Soutter SL. STANTON gynaecology, third edition 666–75 January 1, 2003.
8. Outwater EK, Siegelman ES, Hunt JL. Ovarian teratomas: tumour types and imaging characteristics. *Radiographics* 2001;**21**(March–April (2)):475–90.
9. Szpakowski M, Nowińska A, Kufelnicka M, Komorowski D, Wilczyński JR. Laparoscopy or laparotomy in the treatment of ovarian teratomas? *Ginekol Pol* 2006;**77**(July (7)):502–9.