

A Rare Case of Benign Omentum Teratoma

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SUMMARY

Introduction Mature teratomas (benign cystic teratomas or dermoid cysts) are among the most common ovarian tumours; however, teratomas of the omentum and mesentery are extremely rare. Teratoma in the intraperitoneal cavity is uncommon and atypical, and it is even more uncommon in adulthood.

Case Outline An 82-year-old female was admitted to our department with clinical signs of abdominal tumour. The ultrasound scan and preoperative laboratory tests were done. Explorative laparotomy revealed tumour with torsion on its pedicle at the greater omentum. After removal of the mass and the incision a tooth and hair were found, characteristics of teratoma.

Conclusion The excision was very effective and also definitive treatment for this case. The patient recovered well and was discharged 3 days later. The patient probably carried the tumour all her life asymptotically until admission.

Keywords: omentum; teratoma; acute abdomen

INTRODUCTION

The teratoma is an encapsulated tumour with tissue or organ components resembling normal derivatives of all three germ layers. They can be classified as mature and immature depending on the presence of immature elements. The immature teratoma has a greater potential to metastasize than mature teratoma. There are also other factors in determining potential malignancy, such as location of the tumour, patient's age and sex. The incidence of teratoma in females is much higher than in males. The tissues of a teratoma, although normal in themselves, may be quite different from surrounding tissues, and may be highly disparate. Teratomas have been reported to contain hair, teeth, bone and very rarely more complex organs such as eye, torso, and hands, feet, or other limbs.

Mature teratomas are among most common ovarian tumours. However, the teratoma of the greater omentum is very rare [1, 2, 3]. The first omental dermoid cyst was described by Lebert in 1734 [4]. To date, only 30 cases of teratoma of the greater omentum have been published. The aetiology of these teratomas is not well understood. Treatment of a teratoma consists of conservative surgical removal, a procedure which often requires finesse and delicacy, because of the close proximity to important anatomic structures. With conservative removal, occasional recurrence is to be expected, especially when portions of the teratoma must be left in place in order to preserve normal anatomic structures. Careful and long-term follow-up is

recommended. Malignant teratoma is treated according to its most prominent malignant component, usually by radical surgery, with or without radiotherapy. Rarely, a benign teratoma has been reported to transform into malignancy, especially carcinoma.

The current report involves a case of benign omentum teratoma, which was detected causing acute abdominal pain.

CASE REPORT

An 82-year-old female patient was admitted to Emergency Unit displaying chronic symptoms such as intense abdominal pain associated with nausea, vomiting and abdominal distension. The patient did not have peritoneal irritation, fever or any associated symptoms. She had not undergone any surgery or had any gynaecologic illness. After examination, an abdominal mass was palpable on the middle line corresponding to the pain area referred by the patient.

An ultrasound scan revealed abdominal mass of approximately 10 cm in diameter infiltrating the omentum area. It also revealed ileus paralyticus, but no pneumoperitoneum or presence of free fluids in the abdominal cavity. Preoperative laboratory test results were normal. Preoperative tumour marker tests revealed no elevation of cancer antigen (CA125, CA19-9, carcinoembryonic antigen and α -fetoprotein). An explorative laparotomy was performed which led to the detection of a tumour with torsion on its pedicle at the greater

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Figure 1. Tumour with torsion on its pedicle at the greater omentum

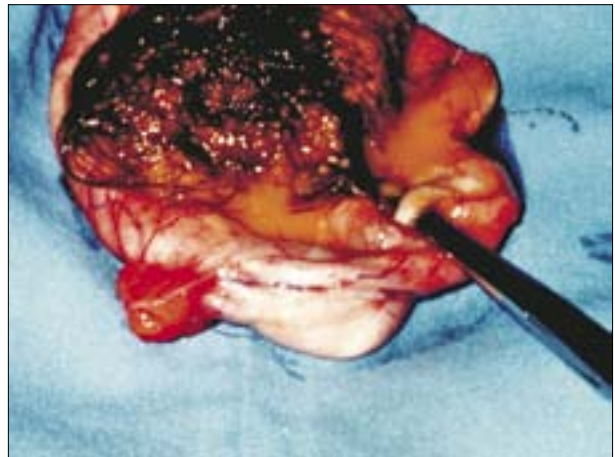


Figure 2. Incision on the mass and a tooth (identified by a forceps) and hair

omentum (Figure 1). Following the complete removal of the mass and the incision a tooth and hair were found, characteristics of teratoma (Figure 2).

Pathological examination of the excised tumour confirmed a typical pattern of benign mature cystic teratoma. No evidence of immaturity or malignancy was found. The patient recovered well and was discharged 3 days later. The patient probably carried this all her life asymptotically until hospital admission.

DISCUSSION

Teratomas are germ cell tumours commonly composed of multiple cell types derived from one or more of the 3 germ layers. Inconsistent nomenclature often confuses discussions of various subtypes of teratomas. The word is derived from the Greek *teras*, meaning monster, which Virchow coined in the first edition of his book on tumours published in 1863. Teratomas range from benign, well-differentiated (mature) cystic lesions to those that are solid and malignant (immature). Additionally, teratomas may be monodermal and highly specialized. Rarely, within some mature teratomas, certain elements (most commonly squamous components) undergo malignant transformation.

The tumour is in most cases encapsulated and well demarcated from the surrounding tissues. Arising from totipotential cells, these tumours typically are midline or paraxial. Cystic teratomas occasionally occur in sequestered midline embryonic cell rests and can be mediastinal (7%), retroperitoneal (4%), cervical (3%), and intracranial

(3%). Cells differentiate along various germ lines, essentially recapitulating any tissue of the body.

Mature cystic teratomas of the ovary are often discovered as incidental findings on physical examination, during radiographic studies, or during abdominal surgery performed for other indications [5]. Asymptomatic mature cystic teratomas of the ovaries have been reported at rates of 6–65% in various series. The symptoms can manifest themselves by abdominal pain, mass or swelling, and abnormal uterine bleeding [6]. Bladder symptoms, gastrointestinal disturbances, and back pain are less frequent. When abdominal pain is present, it is usually persistent and ranges from slight to moderate in intensity. Torsion and acute rupture are commonly associated with severe pain. Hormonal production is thought to account for cases of abnormal uterine bleeding, but histological examination has not provided evidence to support this theory.

The existence of teratomas has been recognized for centuries, during which time their origin was a matter of speculation and debate. Common early beliefs blamed ingestion of teeth and hair, as well as curses from witches, nightmares, or even adultery with the devil. The parthenogenetic theory, which suggests an origin from the primordial germ cells, is now the most widely accepted.

In our case, the clinical picture was leading us to suspect an abdominal tumour. Therefore the treatment performed could only be surgical [7]. The unusual finding entailed a bizarrely large teratoma on the omentum with a torsion in its pedicle. The excision was very effective and also a definitive treatment for this case.

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Бенигни тератом оментума: приказ болесника

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КРАТАК САДРЖАЈ

Увод Зрели тератоми (дермоидне цисте или бенигни цистични тератоми) убрајају се у најчешће туморе јајника, док су тератоми оментума и мезентеријума врло ретки. Налаз тератома у интраперитонеалној дупљи је неочекиван и нетипичан, а још је ређи овакав налаз у одраслом добу.

Приказ болесника Осамдесетдогодишња жена примљена је на наше одељење с клиничком сликом тумора у абдомену. Обављени су преоперациона припрема и ултразвучни преглед. Експлоративна лапаротомија је показала постојање тумора уврнутог око своје петељке која је била причвр-

шћена за велики оментум. Након уклањања ове масе и њене инцизије, унутар туморске шупљине пронађени су зуби и коса, одлике тератома.

Закључак Ексцизија тумора обављена је успешно и у целисти, а као таква била једини могући третман у овом случају. Постоперациони ток је протекао без компликација и болесница је пуштена из болнице после три дана. Највероватније је овај тумор постојао код болеснице цео живот, али без симптома.

Кључне речи: оментум; тератом; акутни абдомен

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