BENIGN TERATOMA OF THE FALLOPIAN TUBE: A CASE REPORT

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ABSTRACT

A benign teratoma of the fallopian tube in a 33-year-old woman with primary subfertility is reported. This is the first case reported in Singapore. The features of benign teratoma of the fallopian tube is discussed.

Keywords: Benign teratoma, fallopian tube

SINGAPORE MED J 1993; Vol 34: 274-275

INTRODUCTION

Primary neoplasms of the fallopian tube are relatively uncommon. Adenocarcinoma is the commonest fallopian tube neoplasm but still represent less than 1% of all malignancies of female genital organs. Even less common are benign tumours of the fallopian tube and a variety of them have been described[1]. Benign teratoma of the fallopian tube is rare and approximately 50 cases have been documented since the first case report in 1865. Malignant teratoma of the fallopian tube has been reported in only four occasions[2-5] in the world literature to date.

This is the first reported case of benign teratoma of the fallopian tube in Singapore. The features of this neoplasm will also be briefly discussed.

CASE REPORT

The patient, a 33-year-old nulliparous Chinese female who was subfertile for two and a half years, was investigated and treated for subfertility in July 1990. She was asymptomatic. She had menarche at the age of fourteen. Her menstrual cycles were regular, occurring at monthly intervals and lasting about five to seven days with occasional dysmenorrhoea. Her menstrual flow was normal. She had been treated for subfertility in 1989 in another clinic with clomiphene but was unable to conceive. She had no previous surgical operations. She had no medical illness. Papanicolaou smear was normal.

Physical examination was unremarkable. Vaginal examination revealed a normal size uterus which was retroverted. No enlargement of the adnexae was palpable. Investigation revealed normal biochemical hormonal results: FSH 11.6mIU/ml, LH 18.0mIU/ml, Estradiol 33.8pg/ml, Testosterone 12.6ng/dl, DHEA-S 299.7ug/dl, Prolactin 7.2ng/ml and Thyroxine (T_4) 6.8ug/dl. Seminal analysis of her husband's sperm was normal. The sperm-cervical mucus compatibility test was positive, indicating the presence of antibodies to sperms. Laparoscopy with dye hydrotubation was performed. The laparoscopy revealed the right fallopian tube to be dilated at the ampulla, the appearance which was suggestive of a hydrosalpinx. There was no spill of dye from the right fallopian tube during hydrotubation. The left fallopian tube appeared normal except for a small fimbriae cyst and there was spillage of dye during hydrotubation. The uterus and ovaries were normal. A few endometriotic spots on the uterosacral ligament on the right side were present. A dilatation and curettage of the uterus was performed. The histology of the uterine curettings was consistent with the endometrium in the mid and late secretory phase.

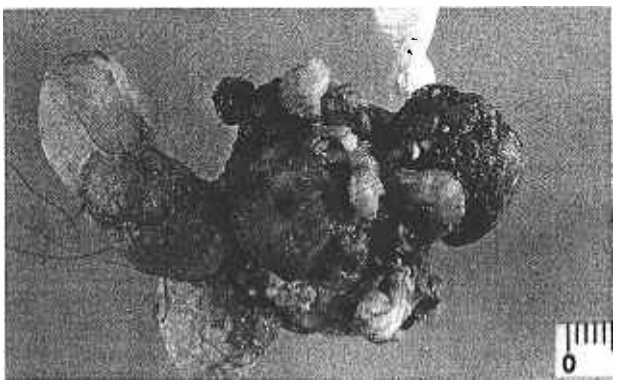
In view of the presumptive diagnosis of a hydrosalpinx of the right fallopian tube, a microsurgical tuboplasty was performed through a laparotomy. During the operation, the ampulla of the right fallopian tube was found to be dilated to about 2.5 cm. A salpingostomy was performed and a mass in the ampulla of the right fallopian tube was enucleated. The presence of hair in the mass suggested a teratoma of the fallopian tube. A fimbrial cyst on the left fallopian tube was excised.

Pathologic Findings

The tumour was a 5.0 x 2.5 x 2.0 cm lobulated mass with small cysts, fatty tissues, bone and hair (Fig 1). Microscopically, multiple cysts with stratified squamous and columnar epithelium were seen (Fig 2). There were also tubular glands, skin appendages, mature glial tissue and fat. The tumour was completely benign. The tubal lumen is dilated and the mucosa is flattened (Fig 3).

Her post-operative recovery was uneventful. Subsequently, she was treated with clomiphene and insemination with her husband's sperm.

Fig 1 - Gross appearance of the tumour. Hairs, cysts and fatty tissues are identified.



DISCUSSION

Benign teratoma of the fallopian tube is rare and as such case reports of the condition are important to enable the accumulation of cases for study. The first forty-three cases have been reviewed by Mazzarella et al[6], who also described a case of their own.

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Fig 2 - Cystic terotoma showing the presence of skin and sebaceous glands (H&E, X100).

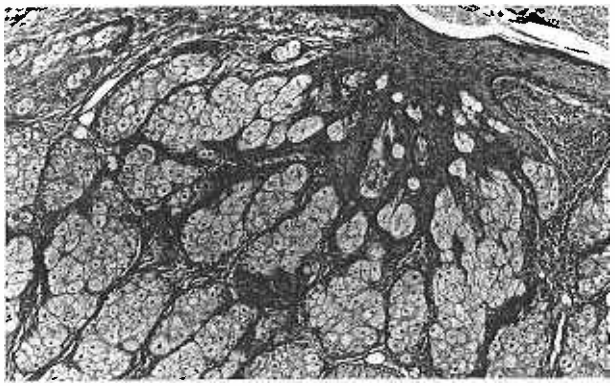
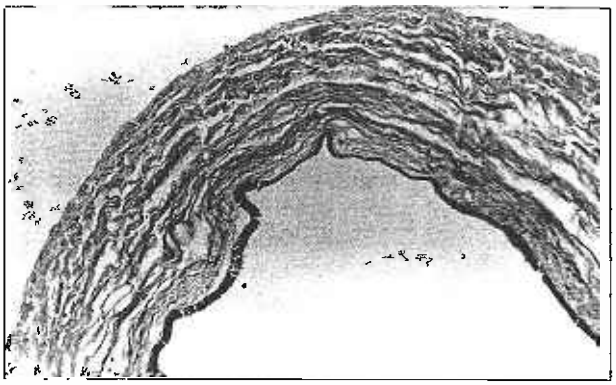


Fig 3 - Part of the dilated fallopian tube with flattened mucosa (H&E. X 40).



A review of the literature has enabled some features of benign teratoma of the fallopian tube to be defined. The ages of these patients ranged from 21-60 years, with most of them occurring in the fourth decade. The diagnosis is almost never made pre-operatively as most of these patients are asymptomatic. The common symptoms are colicky abdominal pain[7], dysmenorrhoea, leukorrhoea, menstrual irregularity[8] and post-menopausal bleeding. There are no characteristic clinical patterns. It is noted that these patients are mainly nulliparous or have a parity less than two. This patient is the third case who is associated with subfertility, the other two cases were reported earlier[9,10].

The sizes of the teratoma of the fallopian tube vary widely ranging from 0.4-20 cm. The smallest size recorded was 0.4 cm[11]. The majority are cystic, others are solid. As with this case report, the location is commonly in the ampulla.

Unusual presentations of some teratoma of the fallopian tube include its co-existence with a tube pregnancy[12], a free floating pelvic mass[13] and rupture into the rectum[14]. Transvaginal ultrasonography may hold the theoretical potential for preoperative diagnosis though the first case is yet to be reported.

The tumour histologically resembles teratomas found elsewhere in the body. The histogenesis is still unclear. One theory suggested the genesis from parthenogenetic fertilisation of the germ cell in situ because teratomas are found along the known pathways of migration of the germ cell during foetal development. Another theory suggested the process of blastomeric isolation in which some cells of the blastula which was sequatrated and later developed into teratomas because they still retained their pluripotent character.

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