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Mature cystic teratoma of both the fallopian tube and contralateral ovary: a case report

J.M. Rhymes[1], T. Gorman[2], R.A. Sasso[1]

[1] Ross University School of Medicine, Department of Clinical Medicine, North Brunswick, NJ
[2] Department of Pathology, Concord Hospital, Concord, NH (USA)

Summary

Intratubal teratoma is a very rare condition. The authors believe to present the first case of a completely intratubal mature cystic teratoma with a contralateral intraovarian teratoma. Preoperative ultrasound examination allowed the intraoperative diagnosis of this rare condition, hence allowing appropriate surgical management. *Materials and Methods*: A 19-year-old woman presented with a history of pelvic pain and severe dysmenorrhea. Ultrasound examination initially suggested bilateral ovarian dermoids. Upon laparoscopy, the distal left fallopian tube was obstructed and contained an inflammatory mass adhered to the rectosigmoid. The left ovary was entirely normal. A contralateral intraovarian dermoid was also identified. *Conclusion:* Although rare, when an intratubal mass is identified, consideration of intratubal dermoid should be given. Preoperative ultrasound can be of critical importance to the intraoperative diagnosis.

Key words: Fallopian tube tumor; Dermoid cyst; Pelvic pain; Salpingectomy; Laparoscopy.

Introduction

Mature cystic teratomas are composed of differentiated tissue originating from all three germ cell layers: ectoderm, mesoderm, and endoderm [1]. Mature cystic teratomas of the ovary are fairly common. However, teratomas occurring in the fallopian tube are rare occurrences with only about 60 cases in the literature to date [2]. Here, the authors describe a mature cystic teratoma in both the fallopian tube and the contralateral ovary.

Materials and Methods

Patient presentation

A 19-year-old white female presented with a two-year history of progressive pelvic pain and severe dysmenorrhea. The patient had an otherwise unremarkable past medical history and no previous surgeries. Ultrasound examination was initially felt to be consistent with bilateral ovarian teratomas.

Surgical procedures

Laparoscopy was performed demonstrating a right ovary containing a deep 2.5 cm intraovarian teratoma attached to the ovarian hilus (Figure 1). The right fallopian tube was entirely normal. The distal left fallopian tube was obstructed and firm, with dense adhesions to the rectosigmoid colon, at the level of the pelvic inlet, and surrounding inflammation (Figure 2). The left ovary was entirely normal and uninvolved with the pathology. Based on the preoperative ultrasound finding of bilateral pelvic dermoids, the intraoperative diagnosis of a left intratubal teratoma was now made.

Results

A left salpingectomy was then performed with left ovarian preservation, as well as a right ovarian cystectomy with removal of its contained teratoma. The left tube was removed with its contained cystic teratoma intact, hence avoiding spillage of its content into the peritoneal cavity. Two separate lesions consistent with superficial endometriosis were also detected and excised. Pathologic examination of the left fallopian tube revealed a mass completely encased within the tube containing components

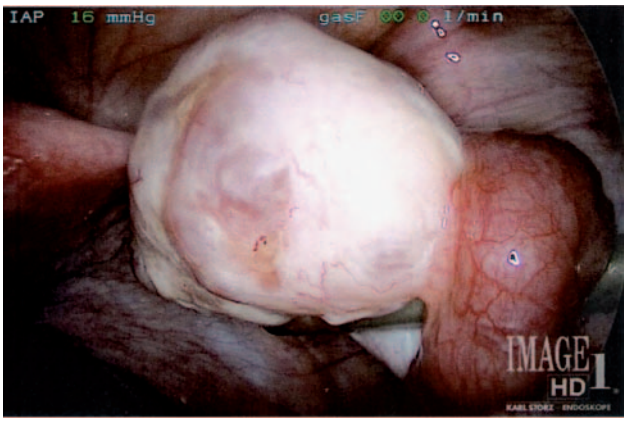

Figure 1. — Laparoscopic view of a deep ovarian mass and normal fallopian tube on the right side.

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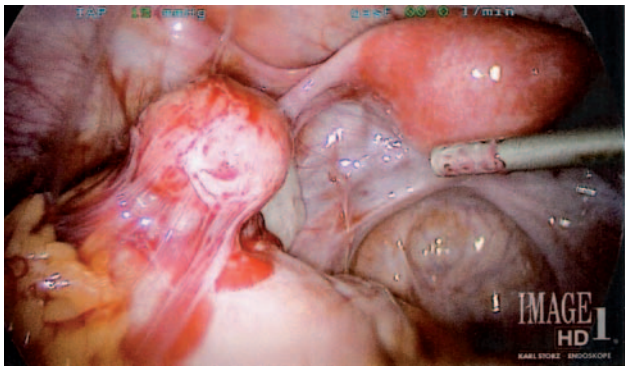

Figure 2. — Laparoscopic view of a solid inflammatory mass of the distal left tube. The mass was densely adhered to the rectosigmoid colon at level of the pelvic inlet but independent from the normal appearing left ovary.

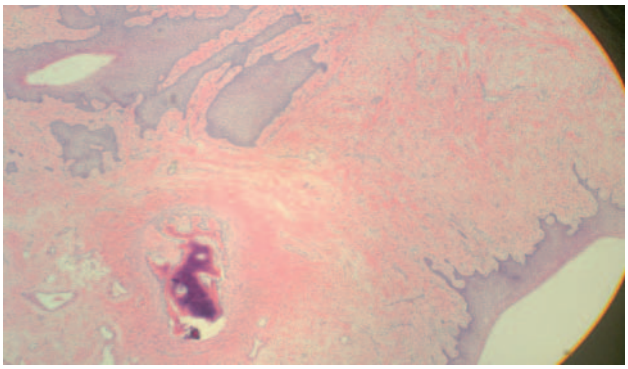

Figure 3. — Histopathological slide of the mass found within the left fallopian tube. This section contains tissues derived from embryonic ectoderm (squamous epithelium) and embryonic mesoderm (adipose tissue and bone tissue).The smooth muscle tissue noted in this slide represents a normal component of the fallopian tube.

of all three germ layers, confirming a complete left intratubal teratoma (Figure 3). Patient had an uneventful postoperative recovery.

Discussion

Mature cystic teratomas are composed of differentiated tissue originating from all three germ cell layers: ectoderm, mesoderm, and endoderm [2]. They are the most common ovarian tumors in women in their second and third decades and can be associated with ovarian torsion and rupture of the cystic component [3]. In contrast, neoplasms of the fallopian tube are the rarest tumors of the female reproductive system [4]. Intrafallopian tube teratomas have been associated with reduced parity, menstrual irregularity, leukorrhea, postmenopausal bleeding, and abdominal pain [5].

The authors believe that this is the first report of a mature cystic teratoma of the fallopian tube occurring concomitantly with a mature cystic teratoma of the contralateral ovary. Also, preoperative pelvic ultrasound allowed the intraoperative diagnosis of intratubal dermoid *without* opening the fallopian tube and risking spillage of its content into the peritoneal cavity, which can lead to chemical peritonitis.

Conclusion

When an intratubal mass is encountered during pelvic surgery, although rare, the possibility of intratubal dermoid should be considered. In this instance, with the use of preoperative ultrasonographic evaluation of the pelvis, the *intraoperative* diagnosis of an intratubal dermoid with a contralateral intraovarian dermoid was possible. This allowed for the most appropriate surgical intervention with the smallest risk of pelvic contamination.

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Address reprint requests to:
J. RHYMES, M.D.
Department of Clinical Medicine
Ross University School of Medicine
630 US Highway #1 Suite 500
North Brunswick, New Jersey 08902 (USA)
e-mail: jadarhymes1@rossu.edu