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Case Series

Benign Cystic Teratoma in Adolescent Female Patients

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Abstract

Mature cystic teratomas occur in young adults and early reproductive years. The following report documents the diagnosis of this tumor in an 11-year-old patient who presented for consultation because of abdominal pain. Both CT scan and the sonogram confirmed the presence of the tumor in the right ovary. This tumor was removed surgically with reconstruction of the right ovary. Pathology study confirmed the diagnosis of benign teratoma containing squamous epithelium, bone and thyroid tissue.

Keywords: Cystic Teratoma; Adolescent; Patients

Introduction

Teratomas develop from germ cells, either from the oocyte from women or from sperm cells in men. There are mature cystic teratomas which are usually benign and there is the immature teratoma which is usually malignant. Mature cystic teratoma tumors constitute about 10 - 20% of ovarian tumors. Most of these cases are usually unilateral, however in 10-15% of the cases with these tumors they are bilateral. It is therefore essential that treatment should always take into consideration evaluation of the other ovary to be sure that it is free from tumors. Since these tumors arise from the oocyte which has the potential to give cells related to the ectoderm, endoderm and mesoderm. Therefore, microscopic examination of these teratomas shows various tissues from these structures. This is the characteristic of these tumors. These tumors usually present in young adults as well as early reproductive years [1]. They could be completely asymptomatic and undiscovered during evaluation of other problems or they might lead to some pain because of enlargement of the ovary or torsion of the ovary.

The following presentation is in a young adolescent patient who presented with abdominal pain and found to have a benign cystic teratoma of the ovary.

Case Presentation

This is an 11-year-old female child who presented to the office with her mother because of abdominal pain for 4 weeks duration. By further inquiry of her history, there was no evidence of gastrointestinal or urine problems. There also was no evidence of any trauma.

The patient has normal thelarche, and normal adrenarche. She did not start her menstrual period yet.

The patient went to her primary care physician who performed an evaluation and CT scan of the abdomen and pelvis where completed. The results showed that the abdomen is normal, no liver or kidney or adrenal problems. The CT scan showed in the pelvis a normal uterus, a normal left ovary, however, the right ovary was enlarged by a cystic mass measuring 8 x 8 cm with some areas of calcification that was suggestive of a dermoid cyst. A pelvic sonogram was done, and it confirmed the presence of the dermoid cyst in the pelvis.

The patient and the mother were counselled to the findings and that the treatment would be a surgical treatment. They agreed, and surgery was scheduled. The patient was taken to the Operating

Room and under general endotracheal anesthesia she was prepped and draped and had a mini laparotomy. The findings in the pelvis showed a normal uterus, a normal fallopian tube and ovary on the left side. The right side showed the tube was stretched on the ovary that was enlarged by a cyst measuring about 8 cm, confirming the findings in both the CT scan and the sonogram.

An incision was done in the capsule of the right ovary and the cystic structure was dissected from the capsule of the ovary. Evaluation showed that there were indeed 2 cysts, one measuring 7 x 5.9 x 5 cm and the other measuring 4 x 3 x 2.2 cm. The cysts were removed intact. The capsule of the ovary was sutured, and the ovary was constructed. During the whole surgery the pelvic structures were irrigated by using Lactated Ringers solution. The abdomen was then closed, and the patient went to the recovery room. She recovered very well during the next 2 days and she went home on a normal schedule. She came one week later to the office for a postoperative check, and she did fine, and the abdominal wound healed nicely.

Evaluation of the pathology findings in these cysts showed that they contain Squamous Epitheluim, bone tissue, and thyroid tissue. They are all benign.

Discussion and Conclusion

This is an adult who presented because of abdominal pain and evaluation systematically showed that she has a dermoid cyst on the right ovary. Pathology showed that it is a benign tumor.

Sometimes these lesions are called mature cystic teratomas and these are benign and are the most common ovarian tumors in adolescent girls [2,3]. They are most probably present at birth; however, they are small and are not recognizable until adult life when they are grown to a size that is recognizable by radiological studies and by sonogram [4]. The recurrence rate after cystectomy is 3 - 10%. So, this means that these patients should be followed regularly and luckily enough that we have non-invasive investigative procedures like sonograms that could be done on the early basis or otherwise if symptoms occur and these could be done sooner to check if there is any recurrence. As we stated above, these tumors are usually unilateral, but of course, sometimes it is bilateral. That's why we have to evaluate both ovaries in these patients to be sure that there is no small lesion on the other side that is missed and should be treated.

In this particular dermoid cyst, the pathology showed that there is thyroid tissue. The patient did not have any evidence of thyroid disease. However, in these cases with that pathology finding we have to study the thyroid function to be sure that the patient's original thyroid is functioning with no hypothyroidism resulting from the removal of that dermoid [5,6].

The cause of the pain of which the patient presented to the office maybe due to intermittent torsion because we did not find any signs of torsion in this situation. However, torsion might happen in some of these cases and certainly the ultrasound with the Doppler study will make the diagnosis clearly and it would become a surgical emergency.

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