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Case Report

Adenomyotic Cyst in an Adolescent Girl

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Abstract. *Background:* Cystic adenomyosis is an extremely rare form of adenomyosis, particularly in the pediatric population. We report a unique case of an adenomyotic cyst in an adolescent girl.

Case: A 16-year-old G0P0 presented with cyclic pelvic pain. Ultrasonography demonstrated a large cystic lesion, which was localized to the myometrium on computed tomography and magnetic resonance imaging. The lesion was surgically excised and confirmed to be cystic adenomyosis by pathology.

Summary and Conclusion: Cystic adenomyosis is a rare cause of abdominopelvic pain and dysmenorrhea in adolescents. Imaging is key in distinguishing this disease from other congenital and acquired gynecological disorders. Awareness of this condition is important for timely, accurate diagnosis and intervention.

Key Words. Adenomyotic cyst—Adenomyoma—Adenomyosis—Focal—Cystic—Radiology—Pathology

Introduction

Adenomyosis is a condition characterized by presence of ectopic endometrial tissue within the uterine myometrium. Diffuse adenomyosis is the most common form, while focal adenomyosis (variably known as adenomyoma, cystic adenomyosis, or adenomyotic cyst) is extremely rare, especially in the pediatric population[1,2] In this article, we discuss the clinical symptoms, radiologic/pathologic findings, and medical/surgical management of pediatric cystic adenomyosis.

Case Report

A 16-year-old G0P0 with menarche at age 11 presented with right lower quadrant and suprapubic pain two weeks into her menstrual cycle. She developed increasingly frequent and severe episodes of dysmenorrhea over the next several months, along with anorexia, nausea, and vomiting. Family and sexual history were noncontributory.

The patient was afebrile with stable vital signs. Physical examination revealed diffuse tenderness to palpation with voluntary guarding over the right suprapubic area. Bimanual examination was deferred, due to the presence of a narrow introitus. External vaginal examination failed to demonstrate any masses or lesions.

Urine beta human chorionic gonadotropin (β-hCG), complete blood count, basic metabolic panel, liver function panel, pancreatic enzymes, and erythrocyte sedimentation rate were all within normal limits. Urinalysis and Monospot tests were negative. Wet mount and cervical cultures showed no evidence of bacterial vaginosis, Trichomonas, or *gonorrhea/chlamydia*.

Transabdominal ultrasonography (US) was performed and revealed a large cystic lesion of indeterminate origin between the right ovary and uterus. Doppler studies showed normal symmetric blood flow to both ovaries (Fig. 1). However, due to clinical concern for ovarian torsion, emergency laparoscopy was performed. At laparoscopy, the uterus was noted to have a broad fundus, and both ovaries and fallopian tubes appeared normal. Superficial endometriosis and isolated adhesions in the cul-de-sac were treated by fulguration. Hysteroscopy was also performed, demonstrating a normal uterine cavity and bilaterally patent tubal ostia (Fig. 2).

The patient was discharged with pain medications and a prescription for oral contraceptives. However, she returned the following week, reporting an acute exacerbation of symptoms. A pelvic computed tomography (CT) scan with contrast was ordered, and demonstrated a large cystic collection with fluid contents and enhancing soft tissue walls. This lesion appeared to be contiguous with the right uterine

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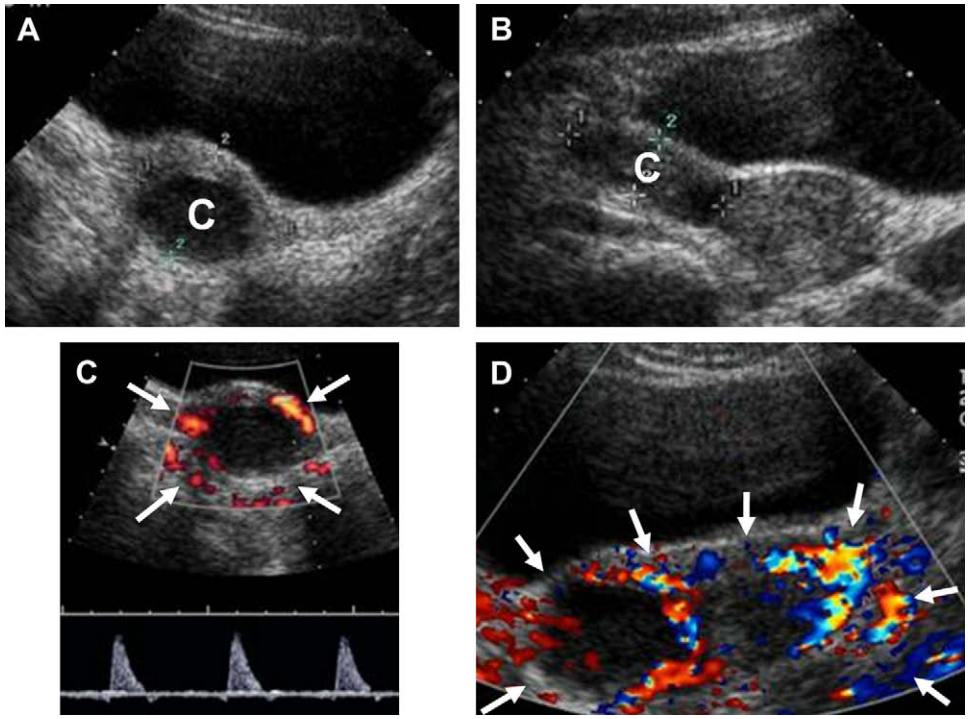

Fig. 1. Transabdominal ultrasonography (A,B) shows a large, thickwalled cystic lesion (**C**) of indeterminate origin. Doppler flow studies (C,D) demonstrate normal circumferential blood flow to both ovaries (arrows).

fundus myometrium, displacing the uterine body toward the left (Fig. 3).

Contrast-enhanced pelvic magnetic resonance imaging (MRI) was subsequently ordered and showed a complex cystic lesion with an internal fluid-fluid level, signifying layering of simple and hemorrhagic/proteinaceous fluid. The lesion was completely contained within the myometrium of the right uterus.

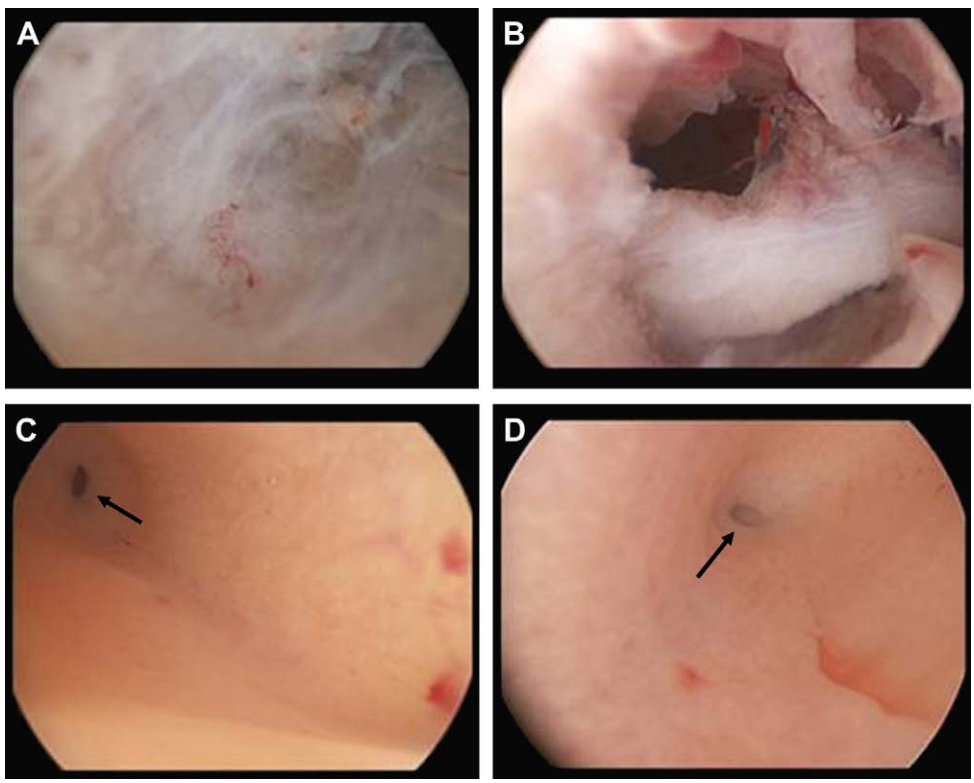

Fig. 2. Hysteroscopy visualized (A,B) a normal uterine cavity and (C,D) bilaterally patent tubal ostia (arrows).