

# Rudimentary Communicating Functional Uterine Horn: A Case Report

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## Abstract

This case report describes a 26-year-old female who presented to the outpatient department with abdominal intermittent pain during menstruation period. Ultrasound and magnetic resonance imaging of the abdomen suggested rudimentary uterine horn. Repeated ultrasonic examination after menstruation exhibited reduced endometria of the mass, suggesting endometria abscission and communicating functional uterine horn. Upon therapy completion and education, the patient was free for laparotomy.

## Introduction

A 26-year-old, married, nulligravida female with no medical history presented to our outpatient department with a six-month history of abdominal intermittent pain during menstruation period. Menstrual cycles were regular with an average flow. The patient had previously been investigated several times with inconclusive reports of dysmenorrhea and received non-steroidal anti-inflammatory drugs treatment, with slight improvement. Local ultrasonic examination conducted four months ago revealed a 2.5 cm low echo mass in favor of a hemorrhagic cyst in her left adnexal area. Another ultrasonography performed in an academic hospital two months ago reported the mass as a 2.6 cm solid on the left side suggesting ovarian tumor. Then, the patient was admitted to our department due to the indeterminate suggestion of laparotomy.

The vital signs were body temperature 36.8°C, respiration 19 times per minute, heart rate 89 beats per minute, and blood pressure 138/82 mmHg. A basic physical examination revealed normal secondary sexual characteristics and pain in the left lower abdomen during palpation. The gynecological examination was unremarkable except for a pigeon-egg size mass in left adnexa with mild tenderness. Expert ultrasonography and color doppler velocimetry of our hospital described a 2.0\*2.0 cm low echo mass with high vascular flow, unclear borderline to left adnexa, and continued boundary to uterus (Figure 1A-D). While endometrial lining was about 1.3 cm in thickness, a 0.5\*0.9 cm high echo was found within the mass. Magnetic resonance imaging of the abdomen showed a 2.6 cm mass in the left adnexa with uterus-like signal continued to uterine wall and a linear endometrium-like signal opened onto uterus (Figure 2). These findings collectively indicated rudimentary uterine horn. Repeated ultrasonic examination seven days after menstruation exhibited similar size, echo, and boundary of mass. Along with a 0.3\*0.6 cm high echo within the mass, a 0.2\*0.4 cm echoless area could also be detected, suggesting endometria abscission and communicating functional uterine horn. Therefore, the patient was free for laparotomy, treated with traditional analgesic, and educated for rudimentary horn pregnancy.

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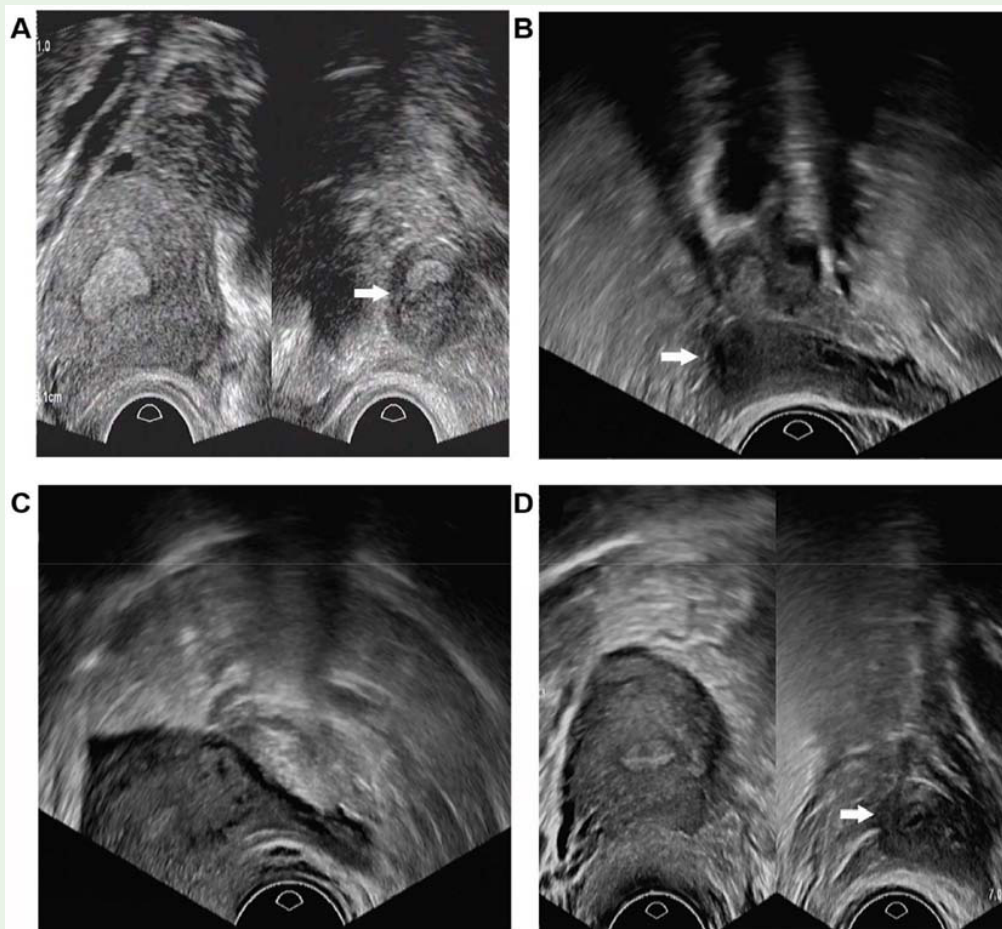
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## Author's contribution

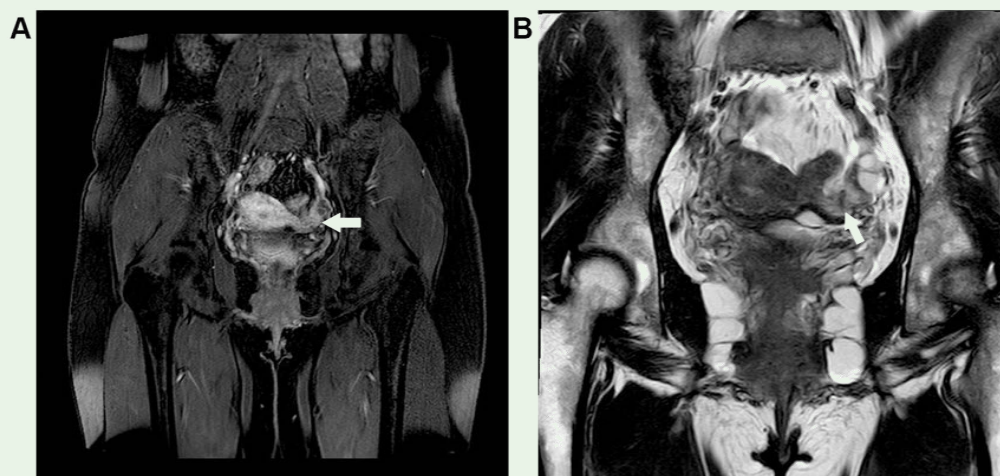
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Wrote the paper: XW, WC



**Figure 1:** Ultrasound scan of the patient before and after menstruation.

(A) Ultrasonographic image showing the uterus (left) and low echo mass (right, arrow) before menstruation. (B) Ultrasonographic image showing unclear borderline to left adnexa. (C) Ultrasonographic image showing continued boundary to uterus. (D) Ultrasonographic image showing reduced endometria (left) decreased high echo and echoless area within the mass (right, arrow) after menstruation.



**Figure 2:** Magnetic resonance imaging of the abdomen.

(A) Coronal T1WI imaging showing the mass (arrow) in the left adnexa with uterus-like signal continued to uterine wall. (B) Coronal T2WI imaging showing the mass (arrow) with a linear endometrium-like signal opened onto uterus.