

TITLE:

AN ALTERED DISPOSITION OF LOW BACK PAIN DETERMINED BY BEDSIDE  
ULTRASONOGRAPHY

AUTHORS:

Maryam Bahreini M.D.<sup>a</sup>, Robab Sadegh M.D.<sup>b</sup>, Javad Seyedhosseini M.D.<sup>c</sup>

<sup>a</sup> Faculty of Emergency Medicine, Tehran University of Medical Sciences, Tehran, Iran

<sup>b</sup> Faculty of Emergency Medicine, Shiraz University of Medical Sciences, Shiraz, Iran

<sup>c</sup> Faculty of Emergency Medicine, Tehran University of Medical Sciences, Tehran, Iran

ABSTRACT:

*Aim.* Ultrasonography can exclusively rule in critical diagnoses in the emergency department and effectively investigate the differential diagnoses in atypical presentations.

*Case Presentation.* A 49-year old man presented to our emergency department with severe low back pain radiating to the back with left lower limb numbness. He had a history of hypertension and a documented lumbar disc herniation in the last previous months that partially relieved with non-steroidal anti-inflammatory drugs. Vitals were blood pressure 165/90, pulse rate 100 and no fever. On physical exam, negative straight leg rising test, no focal neurologic deficit, no back midline tenderness and soft abdomen without tenderness, mass or rebound tenderness were detected. His left extremity showed slightly weaker distal pulses. The pain was not efficiently controlled despite several doses of analgesics and he developed copious sweating and agitation with low back pain. He reports left limb paresthesia that has been attributed to the disc herniation.

*Results.* Point-of-care-ultrasonography in 3 short and long axes views revealed an infra-renal abdominal aortic aneurism with maximum diameter of 6 centimeters and a mural thrombosis without free fluid. The color Doppler ultrasonography of the left extremity showed monophasic pattern of dorsalis pedis and tibialis posterior pulses. Therefore, vascular surgery consultation was requested and he was admitted for further vascular intervention.

*Conclusion.* The critical diagnosis of abdominal aortic aneurism can be variously presented with abdominal, flank or back pain or shock state resulting in delayed and sometimes uneventful outcomes. Bedside ultrasonography is highly sensitive and specific for the diagnosis of abdominal aortic pathologies and can helpfully guide the patient disposition.

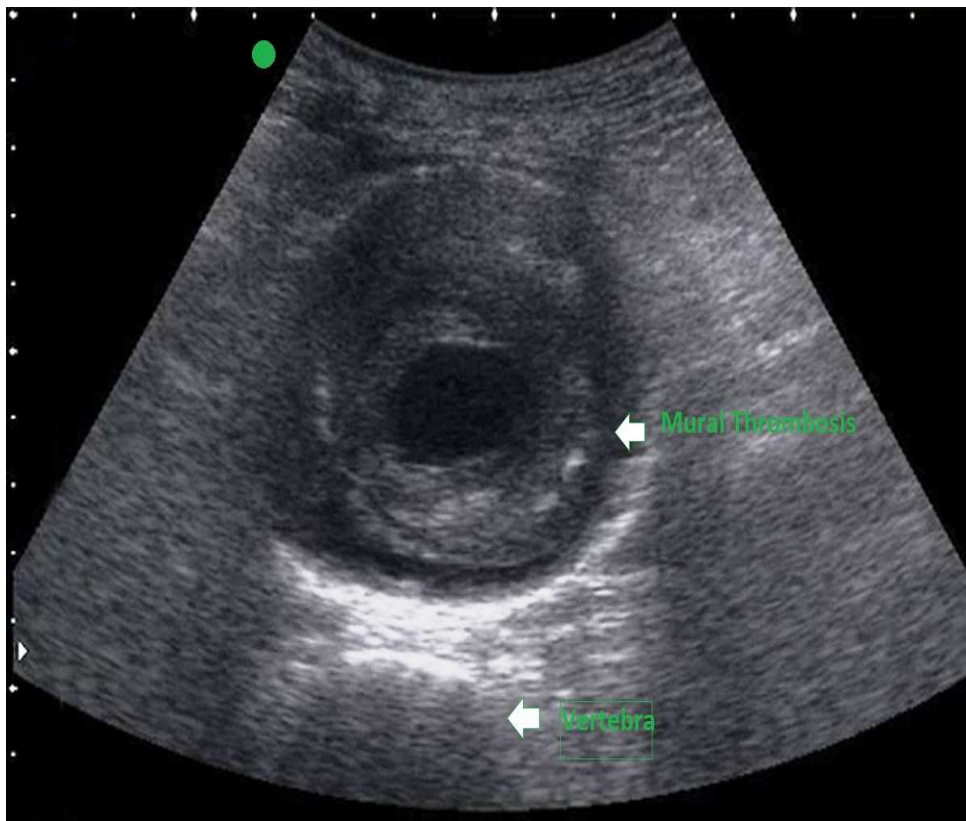


Figure 1: Abdominal aortic aneurism with a diameter of 6 centimeter containing a mural thrombosis.

TITLE:

HEMATOCOLPOS VISUALIZED IN POINT-OF-CARE ULTRASONOGRAPHY: THE  
CONFIRMATION OF IMPERFORATED HYMEN

AUTHORS:

Maryam Bahreini M.D.<sup>a</sup>, Fatemeh Rasooli M.D.<sup>a</sup>, Mojtaba Chardoli M.D.<sup>b</sup>

<sup>a</sup> Faculty of Emergency Medicine, Tehran University of Medical Sciences, Tehran, Iran

<sup>b</sup> Faculty of Emergency Medicine, Iran University of Medical Sciences, Tehran, Iran

ABSTRACT:

*Aim.* Ultrasonography has widely applicable in the diagnosis of female pelvis abnormalities.

*Case Presentation.* A 14-year old girl complained of urinary retention lasting for 4 hours. She reported dribbling and stranguria before complete retention without dysuria, polyuria or hematuria. No fever, abdominal pain or nausea/vomiting was present. She was well-grown for her age, developing pubic hair and breast buds but she did not yet experience menstruation. Past medical history was unremarkable. Vitals were within normal range for age. Physical exam did not show abnormal mass or tenderness, neither a full bladder.

*Results.* Point-of-care ultrasonography revealed a one-quarter full bladder, a large hematocolpos and a normal size empty uterus. No free fluid was detected. During foley catheter insertion, the opening of the vagina was not evident, the anal and urethral openings were anatomically normal and 200 cc urine was drained. The diagnosis was confirmed as an imperforated uterus. The ultrasonography of kidneys and urinary system was documented normal.

*Conclusion.* The discrepancy between menarcheal status and tanner stage should raise the suspicion for imperforated hymen, the early diagnosis of which can prevent infectious and fertility complications. Ultrasonography is a useful tool to investigate the female genital and urinary system and can efficiently detect related pathologies.

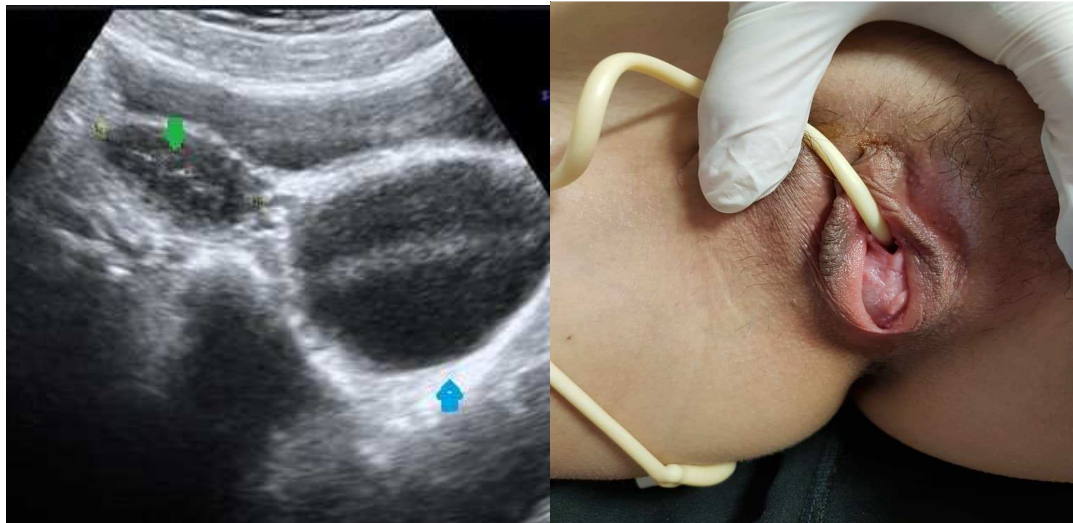


Figure 1: Transabdominal short-axis female pelvic ultrasonography showing a large hematocolpus (blue arrow) and a normal size empty uterus (green arrow).

Figure 2: External genitalia of the patient with imperforated hymen presenting with urinary retention for whom foley catheter was inserted.