

Point-of-care Sonography For Internal Iliac Artery Aneurysm & Abdominal Aortic Aneurysm in Emergent Setting

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Introduction: Internal iliac artery aneurysms (IIAA) are rare and not commonly diagnosed by bedside point-of-care ultrasound (POCUS) as it is usually found as incidental findings in computed tomographic (CT) imaging. IIAA are found to coexist with abdominal artery aneurysms (AAA) in around 40% of AAA patients. Contrarily, isolated iliac artery aneurysms are a rare entity, and the rate of them occurring is estimated to be between 0.4% and 1.9% of abdominal aneurysms.

Case description: We present a case of 81-year-old gentleman with a long standing hypertension, complaining of non specific abdominal pain and difficulty passing motion for past few weeks. Otherwise, he had no fever or constitutional symptoms. Other pertinent medical history included dyslipidemia and left nephrectomy for renal cell carcinoma in 2008. He had multiple visit to private practice and was treated as constipation colic. Clinically, he was vitally stable with blood pressure 115/72mmHg and heart rate 86bpm. His abdomen was soft, non tender and periumbilical mass was palpable. Bedside ultrasound revealed an infrarenal AAA and thrombosed IIAA with a well demarcated false and true lumen. CT findings confirmed our initial POCUS suspicion which showed impending rupture infrarenal AAA measuring 4.9x5.8x8.4cm with left IIAA measuring 2.1x2.3x2.4cm. Case was referred to surgical team for further management.

Discussion: Iliac artery aneurysms and AAA are often asymptomatic or misdiagnosed, which leads to rupture and catastrophic bleeding. Non specific abdominal pain in hypertensive elderly patient should warrant a clinician to have high index of suspicion, to rule out the most life threatening condition. In our patient, challenges faced due to patient history of renal pathology, masquerading of other differential diagnosis. It is also a rare case for IIAA without procedure or trauma related. POCUS is a rapid, accurate, and non-invasive diagnostic imaging modality for patients presenting with aortic pathology. Given its high sensitivity for identifying aneurysms, dissections, and intraluminal thrombus, POCUS is the ideal screening exam for emergent aortic pathology.

Conclusion: Early diagnosis by bedside POCUS in emergency setting will prompt immediate referral and treatment thus reducing the mortality and morbidity rate.

Keywords: Internal iliac artery, point-of-care ultrasound (POCUS), aneurysm