

## Ecografia Point-of-Care como Processo Dinâmico no Diagnóstico de Oligoanúria

### *Point-of-Care Ultrasound as a Dynamic Process in the Diagnosis of Oligoanuria*

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**Keywords:** *Acute Kidney Injury; Point-of-Care Systems; Ultrasonography.*

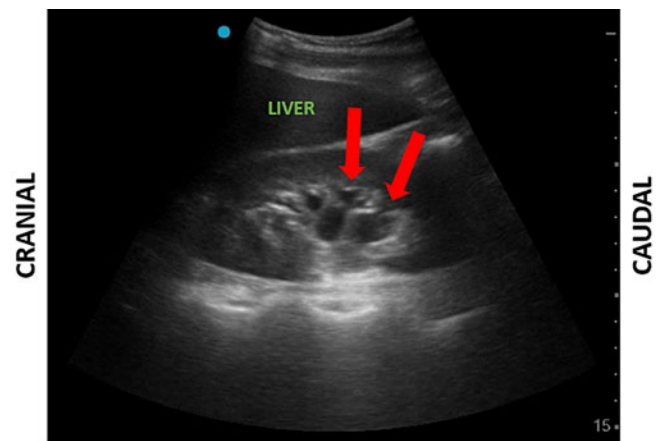
We present a 76-year-old woman with hypertension, diabetes, and obesity, admitted to the emergency department with a one-week course of metrorrhagia and oligoanuria. She presented with tenderness at the hypogastrium where there was an irregular mass, with ill-defined contours, reaching the umbilicus. Blood tests showed anemia (7.7 g/dL) and acute kidney injury (AKI) (urea 108 mg/dL, creatinine 2.7 mg/dL).

Point-of-care ultrasound (POCUS) was performed. Mild right hydronephrosis was noted raising the possibility of obstructive uropathy (Fig. 1). Bladder examination ensued showing a mass with 12x20 cm and no noticeable bladder contour (Fig. 2A).

The use of POCUS allowed a timely referral to the Gynecologist. An abdominal-pelvic computed axial tomography was performed, and a biopsy ensued, revealing undifferentiated carcinoma of endometrial origin.

This case report demonstrates the usefulness of POCUS as a real time diagnostic exam which can assist therapeutic interventions.<sup>1,2</sup> POCUS allowed a dynamic approach: an obstructive mass was identified, a urinary catheter was placed, and visualization of the catheter allowed determination of the bladder and mass location.

A unilateral ureteral obstruction doesn't often result in a relevant AKI.<sup>6</sup> Since bilateral hydronephrosis would be expected if there was bladder obstruction, one of the possible explanations for such injury is the activation of the



**Figure 1:** Longitudinal view of the right kidney showing mild hydronephrosis (red arrows). The blue circle signals the transducer marker in the cranial direction.

renin-angiotensin system causing vascular constriction and ureteral spasm in the contralateral kidney, leading to renal hypoperfusion.<sup>6</sup> Moreover, the basal kidney function in this diabetic, hypertensive patient was not known, leading to a possible overestimation of the AKI.

POCUS use during physical examination is a dynamic process that increases diagnostic accuracy and speed,<sup>2,3</sup> and helps monitoring the results and complications of performed procedures.<sup>1,4,5</sup> ■

#### Declaração de Contribuição

CM, AC, RSV - Aquisição de imagem e redação

JM - Revisão de imagem e do caso

Todos os autores aprovaram a versão final a ser submetida.

#### Contributorship Statement

CM, AC, RSV - Image acquisition and writing

JM - Image and case review

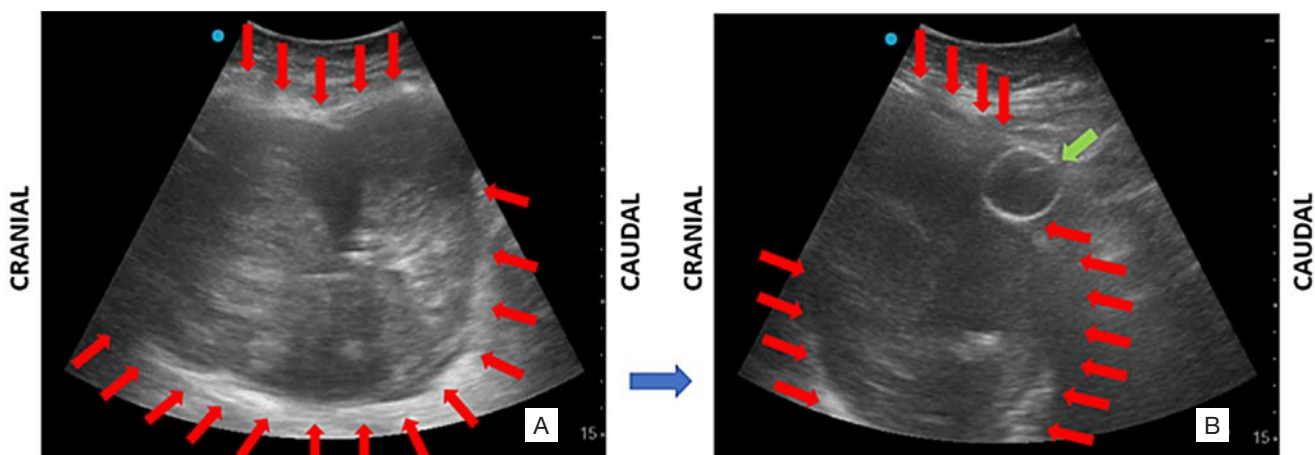
All authors approved the final draft.

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**Figure 2:** (A) Longitudinal view. Uterine mass is delimited by red arrows. (B) Longitudinal view. The image shows the urinary catheter balloon (green arrow) located in the bladder, and posteriorly a uterine mass (red arrows). The blue circle signals the transducer marker in the cranial direction.

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