



## IMAGES IN INTENSIVE MEDICINE

### Early identification of a knotted peripherally inserted central venous catheter

### Identificación temprana de un catéter venoso central de inserción periférica anudado

Andrés Felipe Mora-Salamanca<sup>a</sup>, John Álvaro Niño Aponte<sup>b</sup>, Jorge Iván Alvarado-Sánchez<sup>a,c,\*</sup>

<sup>a</sup> Department of Critical Medicine and Intensive Care, Fundación Santa Fe de Bogotá, Bogotá, Colombia

<sup>b</sup> Nursing Department, Fundación Santa Fe de Bogotá, Bogotá, Colombia

<sup>c</sup> Department of Physiology, Faculty of Medicine, Universidad Nacional de Colombia, Bogotá, Colombia

A 64-year-old male patient was admitted to the ICU for vasopressor support and monitoring after undergoing therapeutic lymphangiography due to chylous ascites. On the third day in the ICU, the patient required a peripherally inserted central venous catheter (PICC) for continuous electrolyte infusion, vasopressor support, total parenteral nutrition, and amiodarone. The PICC was successfully advanced 45 cm into the left brachial vein. To confirm the proper placement of the PICC, a bubble test was performed, which was negative. The PICC was partially retired, but the remaining 5 cm were abnormally resistant to extraction. An X-ray was taken, showing the formation of a knot (Fig. 1). Surgical removal was required to extract the PICC (Fig. 2). Catheter knot formation is a rare but a serious cause of catheter occlusion. Rapid identification and prompt surgical management of a knotted PICC can prevent further complications.

### Ethics approval and consent to participate

This case report was approved by the Fundación Santa Fe de Bogotá Ethics Committee (CCEI-16129-2024) on February 23, 2024

### Consent for publication

The patient agree and consent to publish the images and information related to this case report. The patient read and signed an informed consent.

\* Corresponding author.

E-mail address: [jjalvarados@unal.edu.co](mailto:jjalvarados@unal.edu.co) (J.I. Alvarado-Sánchez).



Figure 1



Figure 2

### Competing interests

The authors declare that they have no competing interests.

### Funding

The authors received no financial support for the research, authorship, or publication of this article.

### Authorship

JANA obtained the patient's informed consent. AFMS prepared the manuscript. JANA and JIAS critically reviewed the paper. All authors read and approved the final manuscript.