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CLASSICS IN ABDOMINAL RADIOLOGY

# The "curlicue" ureter

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In the past, urographic or retrograde pyeloureterographic (RPG) visualization of alteration of the course of the normal ureter was used as a clue to a variety of intraabdominal and retroperitoneal pathologies [1]. Currently, CT is often the first-line imaging study for patients with obstructive urinary tract symptoms, but attention to the ureteral course on these examinations remains essential for the radiologist.

Altered ureteric position may be seen with ureterosciatic herniation as well as the more common ureteroinguinal and ureterofemoral herniation [2]. The "curlicue ureter," a ureteral configuration resembling the twist of a pig's tail (Fig. 1), is a rare but specific finding seen when the ureter herniates through the sciatic foramen (Fig. 2) [3]. The anatomic course of the herniation may be suspected on CT (Fig. 3), with an extraperitoneal path that frequently involves traversal of the suprapiriformis space of the greater sciatic

**Fig. 1** A classic "curlicue" of a pig's tail! Courtesy of Pixabay https://pixabay.com/photos/animal-pigs-piglet-pet-curly-tail-536543/

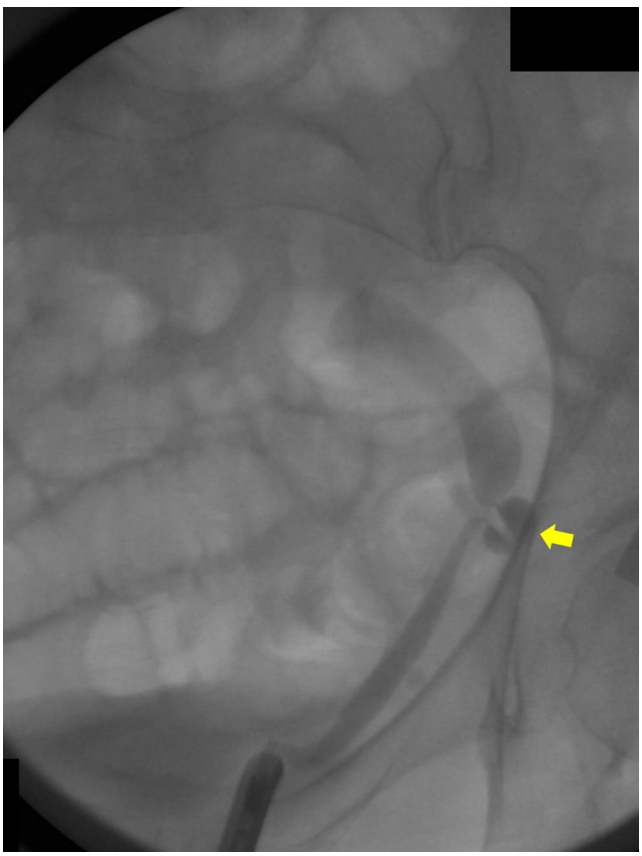

**Fig. 2** RPG demonstrating the classic "curlicue" appearance of left-sided sacrosciatic ureteral herniation (yellow arrow)

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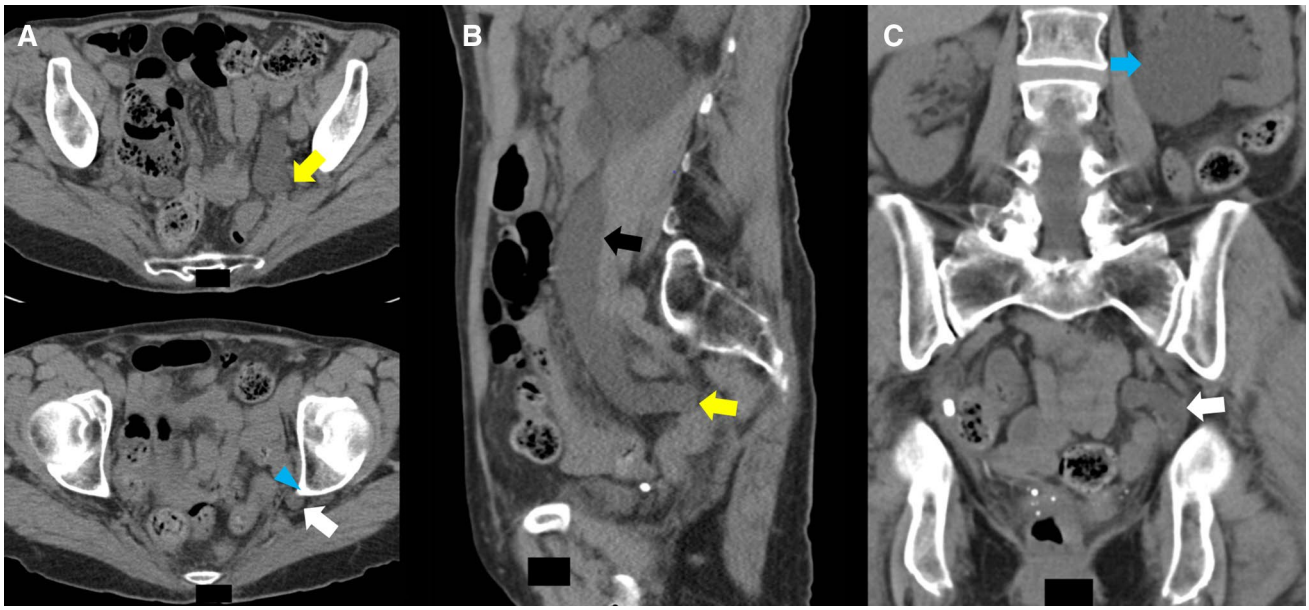


**Fig. 3** Axial (**a**), sagittal (**b**), and coronal (**c**) images demonstrate the altered course of the dilated left ureter (black arrow) in the same patient as seen in Fig. 2. The ureter extends inferiorly, narrows at its exit from the retroperitoneum (yellow arrows), and continues extraperitoneally (white arrows) adjacent to the iliac spine (blue arrowhead). In this case, the ureteral herniation resulted in obstructive hydronephrosis (blue arrow)

foramen [2]. Risk factors for ureterosciatic herniation are thought to include atrophy of the piriformis muscle and defects in the parietal pelvic fascia, with infants and elderly women more commonly affected [4, 5].

## Compliance with ethical standards

**Conflict of interest** Pat Whitworth and Raymond Dyer declares that they have no conflict of interest.

**Research involving human and animal rights** This article does not contain any studies with human participants or animals performed by any of the authors.

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