The “cyst within cyst” sign of intravesical ureterocele

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During ultrasonography, an intravesical ureterocele may be seen as a peripherally based cystic lesion arising from the normal ureteral orifice, often associated with proximal ureteral dilatation. The thin echogenic wall of the ureterocele laterally located within the urine-filled bladder lumen has been described as a “cyst within a cyst” (Fig. 1). At excretory or CT urography, the classic appearance of the ureterocele has been described as that of a “cobra head” or “spring onion” [1, 2].

Ureterocele is a cystic dilatation of the intravesical part of distal ureter due to meatal obstruction which results in simple hyperplastic response. The size of ureterocele may be very small (up to 1 cm) to very large

(filling the whole bladder) [1]. In young patients, the cause of the ureterocele is thought to be congenital, due to the persistence of Chwalla membrane, which is followed by obstruction at the fusion point between mesonephric duct and the urogenital system [3, 4]. In older patients, ureterocele development may be the result of acquired conditions such as inflammatory disease or other acquired conditions [1].

This “cyst within cyst sign” is also seen in the uncomplicated ovarian cyst in females [5].

Compliance with ethical standards

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Conflict of interest All authors declare that there is no conflict of interest.

Ethical approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed consent Informed consent was obtained from all individual participants included in the study.

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Fig. 1. A transverse sonographic image through the urinary bladder in a 2-month-old infant male, shows the classic “cyst within a cyst” appearance (arrows) of bilateral ureteroceles, with proximal dilatation of the lower left ureter (curved arrow).