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### Answers to the Medical Quiz

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**A1.** Intravenous pyelogram (IVP). Dilated proximal part of the left ureter with filling defects at the lower end of the dilated segment.

A2. Ureteral stones or ureteral fibroepithelial polyp.

# DISCUSSION

Ureteral fibroepithelial polyp is an unusual benign tumor of a mesodermal origin, which is very rare in infants and children. This fibroepithelial polyp arises from the wall of the ureter, renal pelvis, bladder or urethra. The majority of cases are secondary to chronic irritation of the ureteral epithelium as a result of stone in adult and it is congenital in children<sup>1</sup>.

The main symptoms of the ureteral fibroepithelial polyp are ureteral colic, hematuria and irritation of urinary tract<sup>1,2</sup>.

There is no clear mechanism for developing ureteral fibroepithelial polyp; suggested etiologies range from congenital, irritation, infection or hormonal imbalances<sup>2</sup>.

Primary ureteral polyps are rare and consist of 1% of all upper urinary tract tumors. Tumors of the ureter can be classified as epithelial or mesodermal. The epithelial tumors are malignant or potentially malignant, while the mesodermal tumors are almost always benign and include fibroepitheliomas, leiomyomas, lymphangiomas, neurofibromas, hemangiomas, endometriosis and fibromas<sup>3</sup>.

Clinical and radiological findings of the ureteral polyp are similar to solid tumor and it is very difficult to distinguish between both conditions before surgery<sup>3</sup>. Fibroepithelial polyps are more common in males; male to female ratio is 3:2 during second, third and fourth decades. The condition is rarely reported in infants and children<sup>3,4</sup>.

Ureteral fibroepithelial polyps are usually located in the proximal third of the ureter; the left side is commonly involved. Ureteral polyps are usually solitary lesions, but few bilateral and multiple polyps have been reported<sup>4</sup>.

The diagnosis of ureteral polyps may be established by excretory urography, retrograde pyelography. Exact initial diagnosis is very difficult before surgery. Ultrasound and CT scan could help in the identification of the site of the polyps<sup>5</sup>.

Ureteroscopy is the ideal choice for the diagnosis and treatment of small ureteral polyps (<1 cm in size). Large size polyps ( $\geq$ 1 cm in size) may require segmental resection of the ureter. The outcome is excellent and recurrence rate is extremely rare<sup>6</sup>.

# CONCLUSION

Ureteral polyps are rare benign epithelial tumor in infants and children. Most of the polyps are located in the proximal ureter. The majority of cases present with ureteral colic and hematuria. Contrast study is very essential for localization of polyps. Endoscopic resection is the treatment of choice in small polyps. Prognosis is excellent after ureteral polypectomy.

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