An Unusual Condition Simulating Malignancy: A Patient with Fibroepithelial Polyp of the Renal Pelvis Covered by the Blood Clot

Chen Zhigang, Ji Zhigang, Shi Bingbing*, Huang Houfeng, Wang Qinghai, Fan Hua and Li Hanzhong

Department of Urology, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences, Beijing 100730, China

Abstract

Fibroepithelial polyp of the renal pelvis is a rare cause of hematuria, and is frequently mistaken for transitional cell carcinoma. We report a 78-year-old female presented with intermittent painless gross hematuria initially suggestive of transitional cell carcinoma. CTU showed high density shadow in the right renal pelvis and proximal ureteral lumen. IVU and retrograde urograph showed a filling defect in the right renal pelvis and proximal ureter that was found to be a fibroepithelial polyp of the renal pelvis. This case demonstrates a rare cause of gross hematuria that should be considered when the imaging findings and presentation are atypical for more common etiologies of hematuria.

Keywords: Fibroepithelial polyps; Renal pelvis; Transitional cell carcinoma

Case Presentation

A 78-year-old female was admitted for two months of intermittent painless gross hematuria on October 31, 2013, without significant incentives associated with blood clots, the symptoms of hematuria gradually became severe, there were no other concomitant symptoms, such as urinary frequency, urgency, urination pain, dysuria and flank pain. The patient has a history of hypertension for 40 years, diabetes for 8 years; liver cirrhosis for more than 10 years; lacunar cerebral infarction for many years; and about 2 years ago, bladder cancer was diagnosed followed by regular bladder perfusion chemotherapy with pirarubicin for one year and regular cystoscopy every three months, no recurrence was found. Before hospitalization, repeated cystoscopy, washing cystology of urine and a computed tomography (CT) scans of the abdomen demonstrated negative for tumor. Ultrasonography showed double calyces separation, low echo in the right renal pelvis and ureter. CTU showed relatively high density shadow in the right side of the renal pelvis and calyces and proximal ureteral lumen, blood clot was considered (Figure 1). Many times of blood transfusion treatment were performed in the emergency department of our hospital, but the hematuria persisted and she was admitted for further diagnosis and treatment. Urinalysis revealed gross hematuria with red blood cell 200 Cells/µl (<25 Cells/µl) and hemoglobin 61 g/L (110-150 g/L). And the recovery course of the patient was unremarkable and she was discharged 6 days after operation (Figures 1 and 2).

Discussion

Urinary tract urothelial cell carcinoma is one of the most common reasons lead to hematuria, while fibroepithelial polyp of the renal pelvis is rarely to be thought. Sometimes, it is difficult to differentiate the fibroepithelial polyp from the urinary tract urothelial cell carcinomas according to the imaging characteristics. Although many advanced urology detect techniques are available, the diagnosis of the fibroepithelial polyp of the renal pelvis preoperatively may be still confusion as showed in our case report.

Tumors that happened in the area of renal pelvis are relatively rare, and most of them are malignant. Fibroepithelial polyp is extremely uncommon benign mesenchymal tumor of the renal pelvis. It is reported that other benign lesions of the upper urinary tract include endometriomas, fibromas, leiomyomas, granulomas, neurofibromas and lymphangiomas [1,2]. Fibroepithelial polyps are mostly located in the ureter, only 15% occur in the renal pelvis, other uncommon locations include posterior urethra and bladder [3]. Most fibroepithelial polyps are found in patients 20–40 years old, but they also may occur in newborns and adults older than 70 years [4], with a male/female ratio of 3:2. The one we report here is a 78-year-old woman with the polyp in the right renal pelvis.

In general, the size of the most fibroepithelial polyps is smaller than 5 cm, but larger polyps have been reported [5,6]. They can be multiple, but mostly are solitary [1]. And they are often smoothly margined and cylindrical, sessile, or even frondlike. The size of the polyp we report here is about 4 cm, with an irregular shape covered...
the right side of the renal pelvis and proximal ureteral lumen, these
by blood clot. Histopathologically, the fibroepithelial polyp has a core
made us confusion about the diagnosis. Biopsy of the lesion in the renal
diagnosed, and in fact, the urothelial cell carcinoma was suspected based on the
The presenting symptoms of fibroepithelial polyps are vague and
and/or intermittent or recurrent flank pain. Sometimes, the pain may
temporary confusion about the diagnosis. On the one hand, the
There are two interesting aspects of this case. On the one hand, the
depend on the site, size and the clinical expertise. Smaller lesions
duration and clinical expertise. Larger lesions can be treated by laser ablation
or obstruction having been proposed [3,9-11].
poorly defined and can be easily confused with other lesions.

The right renal pelvis and calyces and proximal ureteral lumen.

With respect of management of the fibroepithelial polyp, it varies a lot. Local coagulation by laser, polypectomy by ureteroscopy and
To make a definite diagnosis, preoperative biopsy of the lesion is
ULU, retrograde urograms or a CT scan, fibroepithelial polyp may
and uncommon cause of obstruction of the ureteropelvic junction
The detecting methods of fibroepithelial polyp are less common. In children, fibroepithelial polyp may present as an uncommon cause of obstruction of the uteropelvic junction.
However, some patients with fibroepithelial polyp may be

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