

A pediatric patient had giant multifocal nephrogenic adenoma in the bladder: A case report

Mesane içerisinde dev multifokal nefrojenik adenomlu çocuk hasta: Olgu sunumu

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Abstract

Nephrogenic adenoma is an uncommon benign metaplastic lesion in the urinary tract and it can consist after chronic irritation, infection, trauma, surgery, calculi, foreign bodies and chemical agents. In this report, we share in a case of multifocal nephrogenic adenoma in the bladder of a pediatric patient.

Key Words: Nephrogenic adenoma; Nephrogenic metaplasia.

Özet

Nefrojenik adenom üriner sistemde kronik irritasyon, enfeksiyon, travma, cerrahi, yabancı cisim ke kimyasal ajanlara bağlı gelişebilen nadir metaplastik lezyonlardır. Bu yazıda çocuk hastada karşılaştığımız yaygın mesaneyi dolduran nefrojenik adenom vakasını paylaştık.

Anahtar Kelimeler: Nefrojenik adenom; Nefrojenik metaplazi.

Introduction

Neoplasms of the urinary bladder in children are extremely rare (1,2). Nephrogenic adenoma is an uncommon benign lesion of the urinary tract induced by chronic irritation of the vesical mucosa, due to infection, trauma, surgery, calculi, foreign bodies and chemical agents as(2). Although nephrogenic adenoma appears with hematuria or obstruction, frequently found incidentally in endoscopy or imaging modalities. Endoscopic management is usually effective but it has recurrence in up to 90% of cases(3).

Case report

A 13 years old female patient was admitted to our clinic with right flank pain, kidney stones and she underwent right percutaneous nephrolithotomy before 2 years. At the periodical follow-up imaging widespread lesions was found in the bladder at computed tomography (Figure 1). The case underwent a transurethral resection of bladder (Figure 2) and diagnosis to nephrogenic adenoma on pathology (Figure 3). On microscopic examination, tubular, cystic and polypoid to papillary patterns are most characteristic. Due to lesion is large and widespread transurethral resection was performed twice, the second operation was performed four weeks after the first operation. We fol-

lowed up the patient 6 months after the initial diagnosis of nephrogenic adenoma. During this time, there is no relaps detected. Informed consents were obtained prior to the relevant surgical interventions.

Discussion

The nephrogenic adenoma constitutes an infrequent benign metaplasia of the urothelial mucosa (4). It is assumed to be secondary to chronic irritation of the urothelium. It could be found within the bladder 55%, urethra 41%, ureter 4% (4-6). The most common clinical presentations of nephrogenic adenoma are: previous surgery, trauma, chronic urinary tract infections, and recurrent urolithiasis (6). Although nephrogenic adenoma appears with hematuria or obstruction, it is frequently found incidentally in endoscopy or imaging modalities (7). At cystoscopy nephrogenic adenoma may simulate a carcinoma. Approximately 55% of the lesions are papillary, 10% are polypoid, and 35% are sessile. They are typically single but approximately 20% are multiple; rarely there is diffuse involvement of the bladder. It may mimic malignancy radiologically with mass image and filling defect. In the literature, a high recurrence rate (37.5% to 75%) of nephrogenic adenoma has been found during long-term follow-up of



Figure 1: CT images demonstrating of the urinary bladder showing multiple focal papillary tumors.

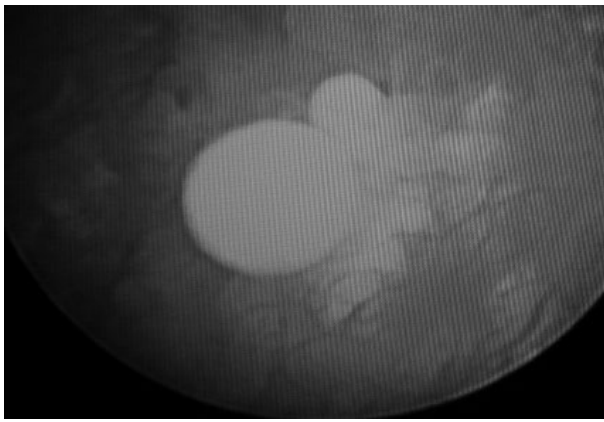


Figure 2: Cystoscopic view of nephrogenic adenoma, they are similar macroscopic image with a papillary tumor.

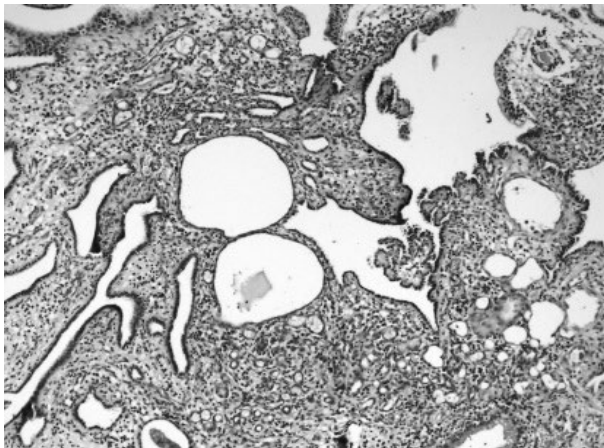


Figure 3: Nephrogenic adenoma. Typical tubules with a single lining of cells. A mixed pattern of small tubules and cysts is seen in case.

pediatric patients but malignant transformation has not been reported until now (8-10). We followed up the patient 6 months and no relaps detected but it must be followed up for probable local recurrences.

Due to the benign nature of this lesion, patients do not adhere to the frequent cystoscopic controls (8). We believe that a careful ultrasound evaluation of a well-filled bladder

and periodical urinary cytology are enough for periodical follow-up.

Conflict of Interest No conflict of interest was declared by the authors.

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