ABSTRACT

Urinary bladder carcinoma is mostly prevalent above the age of 40. It is more common in males. Here, we report a case series of young males with urinary bladder carcinoma. Urinary bladder mass was confirmed by ultrasonogram. Cystoscopic evaluation was done followed by endoscopic resection in the same setting. On histopathology it was found to be low grade noninvasive urothelial carcinoma.

INTRODUCTION

Urinary bladder carcinoma is one of the common urothelial carcinomas. It is diagnosed by its typical history and imaging. Confirmation is done by Cystoscopy and biopsy. They are more prevalent in elderly and are rare in young adults and pediatric population. Very few cases have been reported below age group of 35. In this paper, we present case series of a rare case of bladder urothelial cell carcinoma in young adult males.

CASE REPORT

Case 1

A 15-year-old male presented to the surgery out-patient department with complaints of painless hematuria for 1 year. It was occasionally associated with burning micturition for which he was taking medications from general practitioners. There was no similar history in the family. He did not have any exposure to dyes or paints containing aromatic amines. On examination there were no significant findings. Diagnosis was done by ultrasonogram which showed a urinary bladder mass of Size 21* 20* 19 mm which was non-mobile with lobules and polypoidal growth having a broad base. It was arising from right postero-lateral wall of urinary bladder showing vascularity in color Doppler like a neoplastic growth. Further evaluation was sought to look for associated anomalies and there were none. His urine showed microscopic hematuria. In blood there were no significant findings. CT abdomen showed similar findings in urinary bladder with no other significant findings. Cystoscopic biopsy and transurethral enucleation of bladder tumor was done in the same setting. The biopsy revealed High grade urothelial Carcinoma T1N0M0 without muscle invasion (Figure 1A).

Figure 1: Figure 1: Gross picture of urinary bladder carcinoma of three patients; A: Case 1; B: Case 2; C: Case 3

Case 2

A 33-year-old male with a history of painless blood in urine lasting for three days came to urology OPD. An ultrasound
initially revealed a urinary bladder mass measuring 10 x 7.6 mm. A cystoscopy was performed, which identified a single polypoidal growth attached by a stalk. The bladder tumor was then removed through transurethral enucleation. Subsequent biopsy indicated the presence of a low-grade urothelial carcinoma without invading the muscle layer (Figure 1B).

**Case 3**

A 32-year-old male, experienced sudden inability to pass urine and sought emergency medical attention. Initially, a Foley catheterization was attempted but proved unsuccessful. As a result, the patient underwent suprapubic catheterization. Additionally, the patient was diagnosed with phimosis and a stricture at the bulbomembranous junction following retrograde urethrogram and micturating urethrogram studies. The planned procedures included circumcision and optical internal urethrotomy. During these procedures, a cystoscopy incidentally detected multiple papillomatous growths throughout the posterior wall. A transurethral resection of bladder tumor (TURBT) was performed during the same session, and the biopsy revealed a noninvasive low-grade urinary bladder carcinoma without muscle invasion. A second stage TURBT was performed one month later, which showed urothelial dysplasia upon biopsy (Figure 1C).

Follow-up cystoscopy was conducted on all three patients after 3 months, but none of them exhibited any significant findings during the procedure.

**DISCUSSION**

Carcinoma of urinary bladder is common in elderly age group and eighty percent of urinary bladder tumors occur in age group of 50-80 years. It is three times more common in men. It is tenth most common cancer worldwide and second most common genitourinary tract cancer in males. It is six times more common in developed countries and urban areas. It is more commonly associated with occupational exposure to chemicals.4,5

Most common presentation is painless hematuria. Other symptoms that can be associated are dysuria, urgency, frequency, pelvic mass, weight loss and bone pain. USG, IVU, CT and MRI used for detection and staging. Diagnosis confirmed by cystoscopic examination.2 Urothelial carcinoma accounts for ~90% of bladder tumors among which 95% are epithelial and rest mesenchymal. It ranges from benign, innocuous and non-recurring to aggressively fatal tumors.6 The ISUP/WHO (2004) classifies urothelial tumors into infiltrating and non-invasive.7

After clinical suspicion, imaging is done for diagnosis in young patients. The diagnosis is confirmed by cystoscopic examination. Although no guidelines for cystoscopic examination exist in pediatric and younger age group, recent guidelines given by British Association of Urological Society for adults are usually followed in this group of patients.8 Early diagnosis has favorable outcomes in urothelial carcinoma. In a study of the earliest recorded large volume Cystoscopy study in young patients, a hundred consecutive Cystoscopy was done and not even a single case had urothelial carcinomas.9 Indication of Cystoscopy was advised by a study as to correlate with the radiographic findings and if clinical symptoms like Hematuria, voiding dysfunction with normal imaging findings was present.10 Urologists needed to have high index of suspicion and experienced radiologists.

In a 17 years study done to see incidence for bladder cell carcinoma in young patients of 20-39 years age group, it was found to be age standard incidence of 0.2 per one hundred thousand populations. The incidence in 15 years old child could be even rarer. However other characteristics of the tumors were similar with those of adults for example the gender ratio was almost 3:1, initial stage at presentation were Ta, common histology was low grade urothelial carcinoma.11

Urothelial bladder carcinoma usually has a favorable prognosis. In a study by Nomikos, where 15 patients below 45 years were taken, all had favorable outcomes.12 Fatal outcomes have been rarely noted in young and pediatric patients.

**CONCLUSION**

Diagnosis forms inevitable part in the management and outcomes of urothelial cell carcinoma of young patients. Early diagnosis has been found to have favorable outcome. However clinical suspicion should be very high and imaging should be used only as adjunct to Cystoscopy which is rarely the case in case of urinary bladder carcinoma of pediatric and young patients.

**REFERENCES:**


