Case Report

NEUROENDOCRINE TUMOR OF BLADDER

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ABSTRACT

Neuroendocrine tumor is a rare and aggressive tumor of urinary bladder with poor prognosis. It often presents late and the commonest presentation is haematuria. Cystectomy, partial cystectomy, TURBT with adjuvent radio/chemotherapy, radiotherapy or chemotherapy alone are various treatment options. We present a case of primary neuroendocrine tumor of urinary bladder in a 57 years old lady presented with haematuria. TURBT was performed and patient was referred to oncology department for further management as she was not willing for cystectomy.

Keyword: Bladder tumor, Neuroendocrine tumors, Small cell carcinoma

INTRODUCTION

Most common (90%) tumors of urinary bladder are transitional cell carcinoma. Adenocarcinoma and squamous cell carcinoma are less common. Primary neuroendocrine tumor of urinary bladder is a rare (<1%) however very aggressive malignancy having poor prognosis. It usually presents late as compared to other urothelial malignancies of the bladder. Haematuria is the most common presentation although it may present with metastasis of liver, lungs, lymph nodes etc. Neuroendocrine carcinoma is classified histologically into small cell carcinoma (SCC) and large cell carcinoma which is extremely rare in the urinary bladder. SCC of urinary bladder comprises of 0.5% to 1.0% primary bladder carcinomas which commonly presents in the seventh decade with a male to female ratio of 3:1.¹,²

We present a case of neuroendocrine carcinoma in a 57 years old female at Madina Teaching Hospital/University Medical & Dental College Faisalabad, Pakistan.

CASE REPORT

A 57 years old female was admitted through outpatient department with history of painless gross haematuria for 60 days. Ultrasound (USG) of abdomen and pelvis showed irregular 7 cm×4 cm mass on right lateral wall and base of bladder (Fig I). Computerized Tomography (CT) of abdomen and pelvis showed 7 cm×4 cm irregular mass not extending beyond bladder wall (Fig. II). There was no lymphadenopathy and no metastasis in liver or lungs. Transurethral resection of tumor was performed under spinal anesthesia. Histopathology of tissue proved to be neuroendocrine tumor with invasion into detrusor muscle (Figs. III, IV). Post operative Magnetic Resonance Imaging (MRI) showed clearance of tumor with no evidence of metastasis (Fig. V). Patient was not willing for cystectomy so she was referred to oncologist for adjuvent radio/chemotherapy.

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A number of treatments options are being employed to deal with this rare malignancy. Transurethral resection (TURBT), with adjuvent and neo-adjuvent chemotherapy and radiotherapy, cystectomy, partial cystectomy, radiotherapy and chemotherapy alone are various modalities of treatment with poor prognosis.³

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Figure I

Figure II
Figure III

Figure IV
DISCUSSION

Primary small cell carcinoma (Neuroendocrine) is rare malignancy of urinary bladder. The differential diagnosis of a high grade urothelial carcinoma, a small cell carcinoma of the bladder, lymphoma and metastatic lesions especially from lungs should be kept in mind as lymphomas has better prognosis out of these malignancies. At cystoscopy neuroendocrine tumor cannot be differentiated morphologically from urothelial carcinoma. Histopathology confirm the diagnosis which is further supported by immunostaining.

Treatment is dependent upon stage of tumor at time of presentation and patient’s general condition as it commonly presents in 7th decade. Treatment algorithm could not be established due to its low incidence. Cystectomy, partial cystectomy, transurethral resection and radiotherapy have been used to treat the localized disease. Neoadjuvent and adjuvent chemotherapy have also been tried. TURBT alone is usually not curative and have only 3–6 months survival of patients. TURBT is reserved only for those patients, which are not fit for more aggressive therapies. Patients who were managed by TURBT and radiotherapy had 5–6.5 months median survival rate. Cystectomy and partial cystectomy is reserved for early stage (Stage II) disease. Choong and colleagues have reported 75% cure in patients who underwent cystectomy for stage 2 disease. Quek and associates have reported significant improvement in overall survival and reoccurrence free survival in patients who received adjuvent and neoadjuvent chemotherapy along with cystectomy as compared to those patients who underwent cystectomy alone. Siefker-Radtke and colleagues has published similar results with neoadjuvent chemotherapy. Chenge and colleagues has reported no survival benefit with multimodality approaches. On the other hand Choong and co-authors has reported 75% cure rate with radical cystectomy alone in stage 2 disease and has recommended radical cystectomy alone in stage I and II disease.

Bladder sparing approaches using TURBT with radiotherapy/chemotherapy has been advocated by clinicians. Lohrisch and colleagues has reported 70% 2-years survival and 44% 5-
years overall survival in patients treated with TURBT and chemo/radiation. Bex and colleagues also reported success with bladder sparing approaches; however reoccurrence rate of 20 to 60% has been reported in the literature. Review of literature regarding neuroendocrine tumor of urinary bladder showed that there is no consensus on treatment guidelines to manage this aggressive disease due to its low occurrence rate. Bladder sparing approaches are attractive options with risk of reoccurrence or residual disease in preserved bladder.

CONCLUSION

Neuroendocrine tumor of urinary bladder is rare and aggressive disease with worst prognoses. Due to its low occurrence no authoritative treatment guidelines are available. Various treatment options are cystectomy, partial cystectomy, TURBT alone, TURBT with chemotherapy or radiotherapy. Prospective studies are required to establish the most effective treatment with better outcome and less complications.

REFERENCES


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