Case Report: Complete histological response after neoadjuvante chemotherapy for neuroendocrine bladder cancer

Abstract:

Introduction
Neuroendocrine carcinomas of urinary bladder are rare and aggressive tumor with poor prognosis.

Case report
We report the clinical case of primary neuroendocrine tumor of urinary bladder in 67 years old men.
He underwent neoadjuvant chemotherapy Etoposide Cisplatin for 4 cycles every 3 weeks following surgery with complete histological response
He still alive after 5years and 9 months

Introduction:
Most common (90%) tumors of urinary bladder are transitional cell carcinoma, adenocarcinoma and squamous cell carcinomas less common.
Primary neuroendocrine tumors are a rare entity, they present about one percent (1%) of all tumors and are commonly encountered in the digestive tract (75%) and respiratory (12%) but can be found everywhere.
They also are associated with a more aggressive behavior and poor prognosis than transitional cell bladder carcinoma.
The purpose of this review is to present a case of neuroendocrine carcinoma of urinary bladder and discuss the literature on the diagnosis and management.

Case report:
A 67 years old man diagnosed with primitive urinary bladder neuroendocrine Carcinoma, the tumor was revealed by hematuria over a 3 months period.
He had in medical history diabetes treated with oral anti diabetic, he smoked for 40 years but did not drink alcohol.
A computerized tomography (CT) scan revealed a 3 centimeter mass of the urinary bladder, no evidence of metastasis disease or lymphadenopathy (T2N0M0) (fig1), also in magnetic resonance imaging (MRI) (fig2).

Fig 1: Computer tomography scan of the pelvis shows partial response in tumor in bladder
Transurethral resection bladder tumor specimen showed pure neuroendocrine carcinoma involving detrusor muscle. Immune histochemical staining showed that the tumor components were positive for synaptophysine, chromogranine and Ki67 90% (fig3).

After discussing the case in genitourinary round, it was decided neoadjuvant chemotherapy followed by surgery. The patient was treated with neoadjuvant chemotherapy cisplatin-etoposid regimen every 3 weeks; no major side effects were detected.

After 4 cycles CT scan showed partial response in the tumor. He underwent radical cystoprostatectomy with orthotopic neobladder reconstruction and large lymph node dissection. No post operative complication had observed.

The subsequent surgical specimen showed a complete histological response PT0N0M0. The patient is in complete remission after 5 years and 9 months as the CT scan showed.

Fig 2: MRI and computed tomography scan of the pelvis shows a heavy tumor in bladder.
Discussion
Neuroendocrine carcinoma is rare malignancy of urinary bladder comprise only 0.5-1% of primary bladder malignancies. They affect more men than woman, sex ratio 2.5/1 in the seventh decade and are revealed by hematuria, pollakiuria, pain or paraneoplasique syndrome. The histo pathological characteristics are small cell with scant cytoplasm, the cell express the Neurone Specific Enolase (NSE) marker in 87% of patients, chromogranine A in only third of cases and it is also possible to find an immune reaction for synaptophysine.

The presence of metastatic disease is a factor of poor prognosis. There is no consensus as to their optimum management treatment strategies require a multidisciplinary approach including surgery require a multidisciplinary approach including surgery, chemotherapy, with which radiotherapy can be associated. Many studies report cases of long term survival in patients submitted to cystectomy alone for early stage but the majority associated with chemotherapy (neoadjuvant or adjuvant) to have improve survival.

Chemotherapy platinum containing and Etoposid regimens should be considered as the treatment choice for patients with good performance status (0-1) and good renal function (glomerular filtration rate >60ml).

Conclusion
Neuroendocrine tumor of urinary bladder is rare, aggressive and still have bad prognosis. The histology is important for diagnosis. There are no consensuses for treatment, surgery with neoadjuvant or adjuvant chemotherapy with radiotherapy should be consider. Prognosis is dependent on performance status and extent of disease. Our result suggests that pre operative chemotherapy is the optimal strategy.

References