INFLITRATING UROTHELIAL CARCINOMA ALONG THE URINARY TRACT OF A YOUNG ADULT

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ABSTRACT

Objective: To present a rare case of infiltrating urothelial carcinoma along the urinary tract on a young adult. Case(s) Presentation: A 39 year old Asian male patient with > 20 pack-year smoking history, came to the hospital with a chief complaint of hematuria and flank pain since two weeks ago. Physical examination revealed Eastern Cooperative Oncology Group (ECOG) Performance Status 1, the right kidney was palpated, no tenderness on fist percussion. Abdominal ultrasound (USG) revealed 1.5 cm and 0.5 cm masses located in the urinary bladder. The CT scan show mass in the bladder was exophytic, > 3 cm in size, and occupying lesion was located on the right posteroinferior and left lateral bladder wall accompanied with dilatation of pelvic calyces and right ureter. Histopathology of the specimen revealed low-grade infiltrating urothelial carcinoma of bladder and right ureter. The pathological stage was pT2NxMx. The patient refused neoadjuvant chemotherapy and surgery. Four months after TURBT, he came with weakness and right flank pain. The patient consent to surgery and underwent the right nephroureterectomy. Histopathology of the specimen showed infiltrating urothelial carcinoma of right kidney, ureter, Gerota fascia with lymphovascular invasion (pT3NxMx). Discussion: Urothelial carcinoma (UC) is commonly arising in the urinary bladder, but it can develop along the urinary tract. Cigarette smoke contains a lot of carcinogenic agents and stimulates DNA damage. Conclusion: Upper tract urothelial carcinoma (UTUC) is subset of UC with a poor prognosis. Cigarette smoking is the main risk factor that induces DNA damage.

Keywords: Urothelial carcinoma, smoking, young adult.

ABSTRAK


Kata Kunci: Urothelial carcinoma, merokok, dewasa muda.

INTRODUCTION

Urothelial carcinoma (UC) also termed transitional cell carcinoma is a major cause of morbidity and mortality throughout the world. Urothelial carcinoma typically presents in patients over the age of 50 years and is approximately three times more common in males as in females. There
are so many factors that can contribute to this disease, but smoking is considered an important risk factor. The majority of patients present with symptoms of haematuria (blood in the urine) and/or dysuria (painful urination). UC most commonly arises in the urinary bladder but can develop in the renal pelvis, ureters, or urethra.1

CASE(S) PRESENTATION

A 39 year old Asian male patient with > 20 pack-year smoking history, no family history of genitourinary cancer came to the hospital with a chief complaint of hematuria and flank pain since two weeks ago. Physical examination revealed Eastern Cooperative Oncology Group (ECOG) Performance Status 1, the right kidney was palpated, no tenderness on fist percussion. Abdominal ultrasound (USG) revealed 1.5 cm and 0.5 cm masses located in the urinary bladder. CT showed enlargement of right kidney, with the exophytic mass on the pelvis, obstruction of the right ureter, mass on the right posteroinferior and left lateral side of the bladder, no mass was found on the visceral organ, and no enlargement on local lymph node. There was no sign of metastases from the chest x-ray and bone scan examination.

The patient underwent trans–urethral resection of bladder tumor (TURBT) of the tumor. From cystoscopy examination the mass in the bladder was exophytic, more than 3 cm in size and occupying lesion located on the right posteroinferior and left lateral bladder wall accompanied with dilatation of pelvic calyces and right ureter. Histopathology of the specimen revealed low grade infiltrating urothelial carcinoma of the bladder and right ureter. The pathological stage was pT2NxMx. The patient refused neoadjuvant chemotherapy and surgery. Four months after TURBT, he came with weakness and right flank pain. The patient consent to surgery and underwent right nephroureterectomy. Histopathology of the specimen showed infiltrating urothelial carcinoma of right kidney, ureter, Gerota fascia with lymphovascular invasion (pT3NxMx). The patient passed away four weeks later.

DISCUSSION

On gross section, we found the nephrectomy specimen measured 13 x 8 x 5 cm are brownish white and springy on palpation. The cut surface of the kidney appears a dense white mass resembling cauliflower, partly fragile. The mass filled the kidney cavity extending to the pelvic region. In one part of the kidney, the ureter attaches with a length of 11 cm and diameter 1 - 2 cm, brownish white. The urether lumen cut surface contains a fragile, partially solid white mass.

On histological examination, the tumor consists of round to oval cells with papillary growth. The nuclear appearance was pleomorphic, hyperchromatic dan high mitotic activity.
Infiltrating urothelial carcinoma may affect the along the urinary tract. Upper tract urothelial carcinoma is subset of urothelial cancers with a poor
prognosis. Urinary bladder cancer is the most common malignancy involving the urinary system. Cigarette smoking and occupational exposure are the main risk factors.

REFERENCES


