

# **Cytological findings of an unusual case of cutaneous metastasis of Transitional Cell Carcinoma of Urinary Bladder.**

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## **ABSTRACT**

Cutaneous metastasis from transitional cell carcinoma urinary bladder is a rare clinical entity associated with poor prognosis. This case report describes a 47-year-old male who presented with multiple cutaneous metastases arising from high grade transitional cell carcinoma of urinary bladder with muscle invasion. Patient had undergone TURBT for high Grade Urothelial Carcinoma Urinary bladder, 2 weeks after which he presented with multiple subcutaneous nodules in abdominal wall, cervical region and scalp. Nodules were tender. FNAC was done from cervical nodules and a cytological diagnosis of metastatic urothelial carcinoma was made. An awareness of this rare clinical entity and high index of suspicion is needed for diagnosis.

**Keywords:-** Cutaneous metastasis, Fine needle aspiration Cytology, Transitional Cell Carcinoma, Urinary Bladder.

## **INTRODUCTION**

Cutaneous metastasis from transitional cell carcinoma urinary bladder is a rare clinical entity associated with poor prognosis.[1] Cutaneous metastasis from internal malignancies is rare and it may be the first sign of an advanced disease. Overall incidence of documented cutaneous metastases is 5.3% of all cancer patients.[2] The reported incidence of cutaneous spread from primary urologic malignancies is 1.3%. Urinary bladder malignancies altogether account for 0.84% of cutaneous metastases.[3] The most common metastatic sites for bladder cancer are lymph nodes, liver, lung and bone and even gall bladder.[4] Skin, spleen, heart, kidney, pancreas, brain, and stomach are uncommon sites of distant metastases.[5,6] Skin metastasis can present as nodular, inflammatory, and fibrotic type.[3] Nodular metastases are common and may be of solitary or multiple type.[3,5] In this case report, we present a patient with transitional cell carcinoma bladder who developed multiple subcutaneous nodular metastases 2 weeks after the initial diagnosis.

## **CASE REPORT**

A 47 year old male presented in our laboratory with multiple subcutaneous skin nodules in lateral wall of abdomen, chest, neck and scalp for a duration of 5 days. The size of the nodules was less than 1.5 cm in diameter. The consistency was firm nodular. Patient complained of pain and burning sensation in the skin lesions. Patient had undergone TURBT 14 days back and biopsy was reported as High Grade Transitional Cell Carcinoma with muscle invasion from our lab. Presently routine investigations including LFT, RFT, Blood sugar, CBC, Chest XRay, Ultrasound Pelvis and abdomen were done. MRI spine was also done as the patient complained of backache

Routine blood investigations did not reveal any significant findings. MRI spine showed prolapsed intervertebral discs and few hyperintensity foci in prevertebral region, likely lymphnodes. Ultrasound pelvis showed few rounded hypoechoic lesions measuring approx.5 mm in the parietal wall in right lumbar region ?metastatic deposits.

FNAC of the patient was done from neck region subcutaneous swellings. Smears were highly cellular and revealed atypical epithelial cells in small and large groups and papilliform clusters without fibrovascular cores as well as scattered singly. Few sheets of overlapping cells with columnar nuclei were also seen. Nuclei were pleomorphic, hyperchromatic with irregular nuclear outlines. Cytoplasm was stripped off in few cells while where preserved it was basophilic and stretched out. These cells with eccentric nuclei and stretched out cytoplasm have been termed as cercariform cells. Plenty of these cells were seen in the smears.

As this patient was a known case of High Grade Transitional cell carcinoma Urinary bladder with muscular invasion diagnosed in our institute 2 weeks back, a diagnosis of cutaneous metastasis from High grade TCC was given on FNAC.

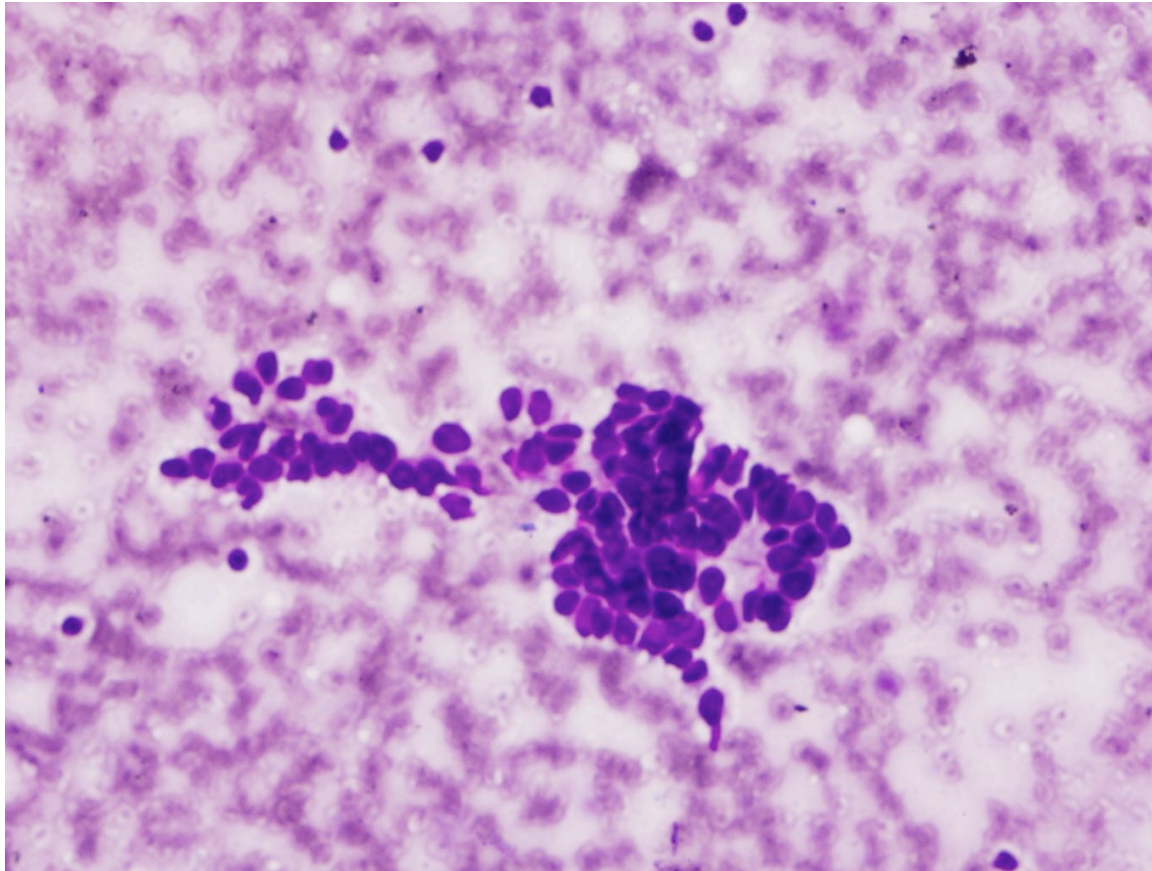


Figure 1. High power view of FNAC smear showing a cluster of atypical cells having hyperchromatic nuclei with high N:C ratio and irregular nuclear outlines. (Giemsa 400X)

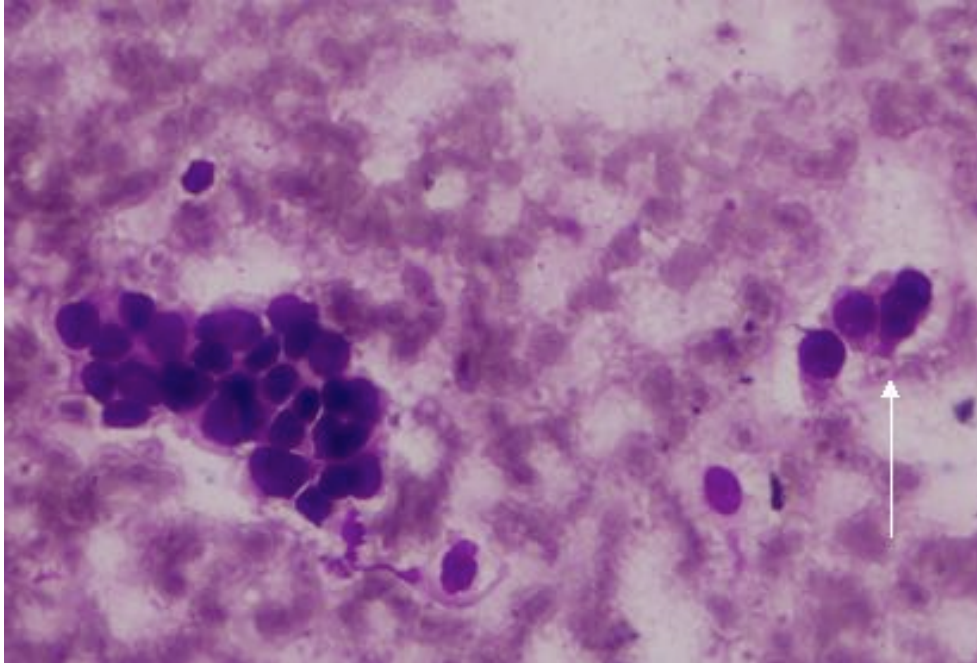


Figure 2 . High power view of FNAC smear showing cluster of atypical cells with cercariform cells (arrow) having eccentric hyperchromatic nucleus and stretched out cytoplasm.(Giemsa 400X)

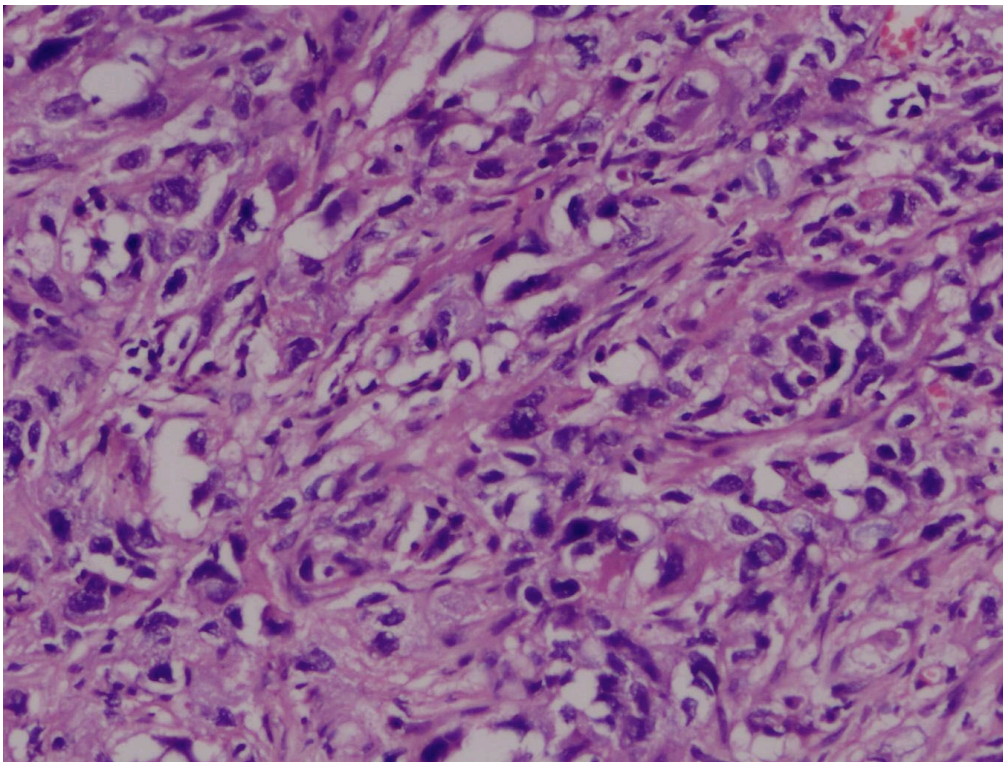


Figure 3. High power view of section from urinary bladder biopsy showing high grade Transitional Cell carcinoma with muscle invasion.(H and E 400 X)



## DISCUSSION

High Grade Transitional Cell Carcinoma with muscle invasion usually metastasizes to lymph nodes, liver and lungs.[11]. Distant metastases to unusual sites are not uncommon. Subcutaneous tissue is an uncommon site of metastasis. Overall it can be seen in 0.8-4% of the malignancies Mueller *et al.* 3 found that the incidence of cutaneous metastases from bladder cancer was 0.84%. Besides to classic lymphatic and vascular spread, iatrogenic procedures, such as partial cystectomy, suprapubic cystotomy, pyelotomy and laparoscopy are the most common causes of seeding of transitional cell carcinoma outside the urinary tract (7, 8).

The prognosis of patients with cutaneous spread of urinary bladder cancer is generally poor and the median survival is less than 12 months.(12) Soon after diagnosis our patient was lost to follow-up

FNA cytology can be very helpful for this diagnosis to exclude other differential diagnoses such as abscess and inflammatory process [9,10]. FNAC being a non-invasive procedure saves the time and money of the patient. In our case we could give the report to the patient on the same day. Biopsy was not done as the FNAC report was considered conclusive and treatment of the patient was started for metastatic urothelial carcinoma.

Our case is unique as even though cutaneous metastasis in the abdominal wall has been reported in the literature before, cervical metastases has rarely been reported. In our case patient had multiple nodules in the abdomen, neck and scalp. Through this case we also intend to impress upon the importance of Fine Needle Aspiration Cytology as an important diagnostic tool for diagnosing advanced malignancies and metastatic lesions.

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