ABSTRACT

TITLE: A PROSPECTIVE STUDY ON COMPARISON OF URINARY CYTOLOGY WITH HISTOPATHOLOGICAL EXAMINATION IN BLADDER TRANSITIONAL CELL CARCINOMA

Introduction: Bladder cancer is the 9th most common cancer worldwide & accounts for 7% of all cancers in male and 2% of all cancers in female. Urine cytology is mostly used non invasive test to detect urothelial tumours. Its used as a valuable adjunct to cystoscopy and biopsy for diagnosis and follow up of patients with bladder cancer. It has high sensitivity but low specificity. All Ultrasound detected bladder neoplasm will be screened by urine cytology collected randomly.

Aims and Objectives: To Correlate Urine cytology with Histopathology of the Bladder Transitional Cell Carcinoma, Study the Role of Urinary Cytology in the diagnosis of Bladder Transitional Cell Carcinoma and Find out the Correlation between the Grading by Urine cytology and Histopathology.

Materials and Methods: A Prospective study conducted from Feb 2014-Jan 2015 at Department of urology, Kilpauk Medical College and Govt. Royapettah Hospital. 70 Patients admitted with carcinoma of bladder diagnosed by ultrasonography and symptoms with hematuria and LUTS. Urine cytology was done in all cases preoperatively and correlated with histopathology post-operatively.

Results: Our study reviewed of 70 patients, Most common age group 50-59 years. Male to female ratio 4:1. 50% Patients presented with hematuria, dysuria and frequency of micturition. Urine cytology shows positive for
malignant cells in 44 patients, suscipious in 8, Atypical in 4, negative in 14 patients. Urine cytology was positive in 52 cases of histologically proven TCC, positive in 86% of high grade tumours, 58% of low grade tumours. Cytology positivity increases with increase in higher stage and high grade of tumours. Overall sensitivity of cytology was 96% and specificity 26%.

**Conclusion:** Cytological examination of urine specimen is valuable as an aid in the diagnosis of bladder tumors. Voided urine cytology correlates with histological diagnosis in more than 60% of cases. The accuracy is more with high grade tumors. Urine cytology still considered useful tool in diagnosis and follow up of Ca bladder with high sensitivity but low specificity

Key words: Transitional cell carcinoma, Cytology, Histopathology