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## Uric acid, serum urea, creatinine and profiling in oral cancer: a prospective comparative study

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**Introduction:** Oral squamous cell carcinoma (OSCC) is a prevalent global malignancy, imposing substantial social and financial burdens. Understanding the fundamental processes driving OSCC may yield novel therapeutic avenues to enhance disease management and patient survival. Our study seeks to evaluate serum urea, creatinine, and uric acid levels in oral cancer patients compared to a healthy control group.

**Methodology:** In this prospective comparative study, we enrolled 60 OSCC patients and 60 healthy controls. We assessed serum urea, creatinine, and uric acid levels at OSCC diagnosis and collected clinical and laboratory data. Subsequently, we examined these serum concentrations, correlating them with the disease's clinic pathological features.

**Results:** In our study, we observed that OSCC patients (mean age: 54.48±11.52 years) outnumbered controls (mean age: 53.24±10.19 years) with a male predominance (68.33%). Significant differences existed in smoking and alcohol use between the groups. TNM stage 4 (41.67%) was the most

prevalent among cases, and most had advanced disease (TNM 3-4, 60.00%). Lymph node metastasis was frequent in positive neck cases (53.33%), and histological, most cases were moderately differentiated (65.00%). Most cases were alive (71.67%) concerning disease-related survival. In linear regression analysis, OSCC patients displayed significantly lower serum urea levels compared to controls, with age, smoking, and lymph node invasion significantly influencing urea levels. Multiple linear regression confirmed these variables' impact on serum urea levels.

**Conclusion:** Patients with advanced OSCC exhibit reduced serum urea levels correlated with lymph node metastasis. Dysregulation of protein catabolism processes may potentially enhance the invasive characteristics of OSCC, fostering their aggressive behaviour.

### Biography

Anurag Kapoor is currently working in the department of biochemistry, Uttar Pradesh University of medical sciences, India.