

## The Degree of Hyponatremia in Transurethral Resection of Prostate: A Prospective Study

Abdulaziz A. Alamri\* Gamal Abdalla Mohamed Ejaimi\*\* Abla Saab, MD\*\*\* Ali A. Alqahtani\*\*\*\* Mohammed Y. Assire\*\*\*\*  
Muneer Jan Bhat, MBBS, DA, DNB(MD)\*\*\*\*\*

### ABSTRACT

**Background:** Systemic uptake of hypotonic fluid during irrigation performed at the time of Transurethral Resection of the Prostate (TURP) may cause electrolyte changes including sodium, potassium and calcium. The present study was aimed to assess the degree of sodium changes during Transurethral Resection of Prostate (TURP).

**Methods:** 50 males aged 54 to 86 years, presented for TURP, were enrolled in the study with ASA classification of I to IV grades. Glycine 1.5% was used with height of irrigation kept at 60 cm. One day preoperatively and one hour postoperative, levels of serum sodium were measured for all the patients.

**Results:** Spinal anaesthesia was given in 31 patients, whereas 19 patients were managed under general anaesthesia, with mean duration time being  $72.42 \pm 24.77$  min. The mean size of the resected prostate was  $54.82 \pm 25.04$ g. 58% patients developed mild hyponatremia, 4% had asymptomatic moderate hyponatremia and no patient developed severe hyponatremia or TURP Syndrome. The systemic diseases like hypertension, DM, or IHD found to be insignificant.

**Conclusion:** TURP was associated with a high incidence of asymptomatic mild hyponatremia. Duration of operation was one of the most important factors.

**Keywords:** Serum Sodium, Benign Prostatic Hyperplasia, Transurethral resection of prostate, Hyponatremia, TURP

*Bahrain Med Bull 2023; 45 (2): 1460 - 1462*

---

\* Consultant of Urology  
Head of the Department of Surgery  
King Khalid University  
Abha, Saudi Arabia.  
E-mail: aaazizamri@gmail.com

\*\* Consultant of Anaesthesia and Intensive Care  
Department of Anesthesia and Intensive Care  
Taiba Hospital, Kuwait.

\*\*\* Lecturer of Anesthesia and Intensive Care  
Ain Shams University  
Cairo, Egypt.

\*\*\*\* Aseer Central Hospital  
Department of Urology  
Saudi Arabia.

\*\*\*\*\* Assistant Professor Anaesthesia  
Department of Surgery  
King Khalid University  
Abha, Saudi Arabia.