

## **DOES OFFICE UROFLOWMETRY REFLECT TRUE URINARY FLOW PARAMETERS?**

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**INTRODUCTION AND OBJECTIVE:** Measurement of urinary flow to evaluate lower urinary tract obstruction is usually performed through office uroflowmetry (OUF), as an "ad hoc" procedure. Patient are obliged to an exaggerate fluid intake, to refrain for a few hours from voiding and are sometimes exposed to the effect of diuretic drugs. this measurement is performed in the outpatient clinic, wich is not a natural environment of this individual. The purpose of this work is to compare OUF values to home uroflowmetry (HUF), measured through 24 hrs. in a much friendlier environment.

**METHODS:** The present non randomized series includes 42 men ( $65 \pm 16$  years old) who suffered from lower urinary tract obstruction. All measurements in each patient were performed with the same device (Urospec, Israel). Every man underwent one OUF measurement at the clinic followed by HUF at home for 24 consecutive hours, using a portable model.

**RESULTS:** There were 42 OUF and 439 HUF measurements. The average single voided volume in OUF was 218 ml (61-414), whereas the average largest voided volume in HUF was 283 ml (102-459). The average peak flow rate (PFR) in OUF was 9.3 ml/sec (5-14) as compared to 14.4 ml/sec (6-21) in HUF. Thirteen patients (31%) were unable to void at least 150 ml, a valid urine volume in OUF. Seventeen patients (40.5%) who presented with obstructive parameters in OUF (voided volume  $\geq 150$  ml, PFR  $< 15$  ml/sec) showed at least one normal flow rate value in HUF.

**CONCLUSIONS:** At OUF a significant number of patients (31%) were unable to void a valid urine volume (150 ml or more). The data obtained in the present series show a significant difference between the volume of voided urine and PFR obtained in OUF and HUF, respectively. An important number of patients who presented with obstructive parameters in OUF showed at least one event of non-obstructive voiding in HUF. There is marked inaccuracy of uroflowmetry data obtained at the outpatient as compared to home uroflowmetry. HUF may be useful to disclose those non-obstructed among patients with false pathologic parameters measured in OUF.

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