

## RESISTIVE INDEX OF PROSTATE CAPSULAR ARTERIES AS AN INDICATOR FOR DEGREE OF OBSTRUCTION IN PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA.

### Hypothesis / aims of study

To investigate the relationship between resistive index of prostatic capsular arteries and degree of bladder outlet obstruction in patients with benign prostatic hyperplasia.

### Study design, materials and methods

A total of 52 patients aged from 55 to 70 with the clinical diagnosis of BPH were recruited . Patients with cancer prostate , neurogenic bladder , previous lower urinary tract intervention , were excluded . Urologic evaluation included , thorough history , IPSS , neurologic examination , digital rectal examination , urine analysis , PSA , uroflowmetry , transrectal doppler ultrasonography . The correlations were analysed between the resistive index of prostatic capsular artery , and maximum flow rate (Qmax).

### Results

Descriptive Statistics					
	Range		Mean	±	SD
Age(year)	55	- 70	63.863	±	4.643
IPSS	1	- 35	19.882	±	9.361
Q Max(ml/sec)	2.6	- 17.9	9.097	±	4.591
PSA(ng/ml)	0.9	- 33	10.903	±	8.776
Total gland volume(gm)	20	- 295	82.922	±	45.808
Adenoma(gm)	9	- 202	51.524	±	35.149
Residual urine(ml)	0	- 450	77.030	±	96.311
RI	0.29	- 0.95	0.728	±	0.110

### Interpretation of results

There was a significant increase in RI correlated to decrease in Qmax ( $r = -0.398$ ,  $p < 0.016$ ). Also there was significant increase in RI correlated to increase in IPSS ( $r = 0.535$ ,  $p < 0.001$ ). AS regard Qmax, there was significant decrease in Qmax correlated to increase in IPSS ( $r = -0.654$ ,  $p < 0.001$ ).

### Concluding message

Resistive index of prostatic capsular artery can be used as an indicator for degree of bladder outlet obstruction in patients with BPH.

### Disclosures

**Funding:** NONE **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Urology department **Helsinki:** Yes **Informed Consent:** Yes