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EVALUATING THE ASSOCIATION BETWEEN BENIGN PROSTATIC HYPERPLASIA AND METABOLIC SYNDROME, SERUM HIGH SENSITIVITY C-REACTIVE PROTEIN, SERUM FASTING INSULIN IN SOUTH INDIAN MEN.

Hypothesis / aims of study
Benign prostatic hyperplasia (BPH) is a highly prevalent disease of older men and is a major cause of lower urinary tract symptoms.
Recently, metabolic syndrome (MetS) has been thought to play an important role in the aetiologies of BPH. Hence the role of MetS in development of BPH has to be clarified.
Aim:
To evaluate the association between Benign prostatic hyperplasia and metabolic syndrome, Serum High sensitivity C-Reactive Protein, Serum fasting insulin in south Indian men.

Study design, materials and methods
A total of 70 men with BPH who attended Urology Outpatient department between December 2014 to March 2015 were included in the study. Diagnosis of Metabolic syndrome was made according to NCEP ATPIII (National Cholesterol Education Program Adult Treatment Panel with Asian modification). The patients were classified into 2 groups: those without MetS (group 1), those with MetS (3 or more risk factors)
Patients with neurologic disorders , renal insufficiency, bladder stones, prostate cancer, urethral stricture, previous pelvic surgery , Asthma were excluded. Informed consent was obtained from all the patients.
The Vernacular version of the IPSS was administered to the respondents to evaluate Lower urinary tract symptoms (LUTS). Digital rectal examination was done in all the patients. The prostate volume was assessed using transrectal ultrasonography / transabdominal scan.
Metabolic syndrome was assessed by assessing the height, weight, BMI, Waist circumference and Blood pressure. Blood investigations include Fasting blood sugar, Serum Triglycerides, HDL, LDL, Fasting insulin, HS CRP and SerumPSA.

Results
Out of the total 70 patients, 33 patients were found to have metabolic syndrome. 9 patients had mild LUTS, 31 had moderate and 30 had severe LUTS.
HsCRP was increased in 64 pts (91.4 %). Fasting Insulin was elevated in 51 pts (72.5%). Patients with metabolic syndrome had larger prostate size which is statistically significant (pvalue-0.0434) but there was no correlation between metabolic syndrome and IPSS scores.
There is statistically significant correlation between Age and IPSS score. (pvalue – 0.035).

Interpretation of results
47% of study patients had metabolic syndrome. Majority had elevated HsCRP and Fasting insulin levels. There was no correlation between IPSS score and Metabolic syndrome, however the prostate gland size was higher among patients with Metabolic syndrome.

Concluding message
There was significant correlation between metabolic syndrome and prostate gland size thus establishing the role of metabolic syndrome in the etiopathogenesis of BPH . Hence life style modifications in combating metabolic syndrome will help in decreasing the BPH progression.

References
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Disclosures
Funding: NIL **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Institutional Ethics Committee, Narayana Medical College, Nellore, Andhra pradesh, India. **Helsinki:** Yes **Informed Consent:** Yes