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Medicine

CORRELATION OF SYMPTOM SCORE WITH HISTOLOGICAL FINDINGS IN BENIGN PROSTATIC HYPERPLASIA

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ABSTRACT Benign prostatic hyperplasia consists of hyperplasia of stromal and epithelial elements of prostate. Our aim was to find out the correlation between symptom score and histological finding in BPH. 25 symptomatic patients attending OPD of institute of Urology, RGGGH were enrolled for study. USG size estimation of prostate, Uroflow was done and cystoscopic assessment of prostate size was done. TURP was performed and, the specimen histopathological examination was done. Peak flow rate range was between 5.2 ml per second to 10 ml per second. Mean weight of resected specimen was 11.88 +/_ 2.7. The symptom score ranged between 3 to 34. Mean total symptom score was 23.08 +/_ 5.9. The mean obstructive score rate was 13.24 +/_ 3.9. Irritative score mean was 9.88 +/_ 3.2. In all of specimens percentage of the stroma was higher than the epithelium. The mean percentage of stroma is 63.04 +/_ .9. Mean percentage of epithelium was 36.73 +/_ 11.7. Though there was increased stromal component in all resected specimens, there was no significant correlation between the symptom score and percentage of stroma and epithelial components.

KEYWORDS : BPH, Histology, symptom score, corellation

INTRODUCTION
Benign Prostatic Hypertrophy is common in elderly males. Benign prostatic hyperplasia consists of hyperplasia of stromal and epithelial elements of prostate. the clinical symptoms are either obstructive or irritative voiding symptoms. The clinical symptoms are not related to size of adenoma. There is a significant increase in stromal component in patients with symptomatic prostatic hyperplasia. This leads to a question whether is there a correlation between the symptoms and histological pattern of BPH. This question formed the basis of our study.

AIM
To find out the correlation between symptom score and histological pattern in BPH using W.H.O symptom score questionnaire and histological study of TURP specimens, for relative propotions of stroma and epithelial elements.

MATERIALS & METHODS
25 men with symptomatic BPH, attending the urology OPD of RGGGH, Madras Medical College were enrolled in the study. USG KUB was done and the prostate size was assessed. Uroflometry was done. Cystoscopic assessment of the prostate was done. All baseline investigations were done. The WHO symptom score questionnaire was used to calculate the symptom score in all the patients. The patients underwent TURP. All the specimen was weighed, phosphate buffered, paraffin embedded. After sectioning at 5 micron size, H & E staining was done. A special stain Vngiesons stain was used for the fibrous tissue and PAS stain was used for the epithelial elements. A minimum of 20 fields were studied under microscope. Ratio of stromal elements to epithelial element was assessed. The stromal components like smooth muscles and fibrous tissue were differentially quantified. The values were given in percentage of stromal and epithelial elements.

In this study only one pathologist was examining all the tissue sections and there was no provision to determine inter observer variability. Similarly symptom score was also done by one person at one time and with symptom score being based on clinical impressions by patients there is room for inter observer variability, Although BPH is a heterogenous process, examining examining 20 different fields for a given histological section is representative of hyperplastic process.

WHO score asks 7 questions rated 0-5' it also contains some quality of life questions. The symptoms for AUA score were selected by examining the correlation coefficients between symptoms I original pilot study which looked at 7 symptoms and correlation between each symptom and two general questions about the degree of trouble caused by the urinary symptom overall. The symptoms of hesitancy and slow stream correlated with urodyamoc findings of obstruction. Improvement in the score corresponds to the overall assessment of treatment outcome. All the symptom score advocated are arbitrary based on inaccurate factor "Clinical Impression".

RESULTS & ANALYSIS:
TURP was done for all the 25 symptomatic BPH patients enrolled in the study. The peak flow rates of the patient varied from 5.2 ml per second to 0 ml per second. Age of the patient varied from 43 years to 75 years. The mean weight of the resected specimen was 11.88 +/_2.7 gms . Total symptom score as estimated by WHO symptoms score questionnaire ranges from 3 to 34. Mean total symptom score was 23.08 +/_ 5.9. the obstructive score rate varied from 6 to 20. The mean score being 13.24 +/_ 3.9. irritative score varied between 6 to 5 with mean score being 9.88 +/_ 3.2. irritative score was more tan the obstruction score in 4 of the cases.

In all cases percentage of stroma was higher than percentage of epithelium except in one case in which percentage of stroma is 36% and percentage of epithelium is 64%. The mean percentage of stroma was 63.04 +/_ 11.9 and that of the epithelium was 36.73 +/_ 11.7. when the total score was correlated with percentage of stroma and percentage of epithelium there is no correlation found. Statistically there was no correlations shown in table. The correlations are given in table I.

TABLE – 1 CORELLATION COEFFICIENTS

Total symptom score and % of stroma	- 0.06063
Total symptom score and % of epithelium	+ 0.060632
Obstructive symptom score and % of stroma	+ 0.084847
Obstructive symptom score and % of epithelium	- 0.08484
Total symptom score and % of smooth muscle	+ 0.243688
Total symptom score and % of fibrous tissue	- 0.25755

CONCLUSIONS
In patients with obstructive, symptomatic BPH who underwent Trans urethral resection of prostate there is preponderance of stromal components. There is no correlation between the total symptom score rate and percentages of stromal and epithelial elements, in the stroma, there is no correlation between percentage of smooth muscle an fibrous tissue in relation to symptom score. In few patients whose irritative symptom score is more than obstructive score there is no difference in histological findings.

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