

## HISTOPATHOLOGICAL SPECTRUM OF PROSTATIC LESIONS & ASSOCIATION WITH PSA VALUES: A HOSPITAL BASED STUDY

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### ABSTRACT

**Introduction:** Prostate gland is an exocrine gland and the largest accessory reproductive organ in male. It is the most commonly affected organs in males with increasing age accounting for significant morbidity & mortality. This study was done over a period of one year retrospectively in our department of pathology, Sree Balaji medical college & hospital in the TURP Specimens received in our department.

**Result:** We studied in TURP specimens receive in our department. Age of the patients ranged from 40 years to 90 years with the mean age of 55 years. Prostatic cancer was most commonly seen in 7<sup>th</sup> decade. Benign hyperplasia of prostate was the most common clinical diagnosis. Most common clinical presentation was increase in frequency of micturation.

**Conclusion:** Benign lesions are more common than malignant lesions. Maximum patients who were affected were in 6<sup>th</sup> decade presenting with increasing frequency of micturation. PSA values shows lack of specificity in prostatic cancer is a limitation as a tumour marker.

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### INTRODUCTION

Prostate gland is an exocrine gland and the largest accessory reproductive organ in male. It is the most commonly affected organs in males with increasing age, accounting for significant morbidity and mortality. The most important categories of prostatic diseases are inflammatory lesions, Nodular hyperplasia and Carcinoma. Prostate cancer is the most common cancer and the second most common cause of cancer related death in men. Prostatic cancer is responsible for 3% of all death in men over 55 years of age in india. PSA is a highly sensitive marker for the prostatic lesion with the cut off value of 4 ng/ml

In this study, we found prostatic lesions were mostly associated within the age group of 61-70 years, with the mean age of 69 years. This study shows 86.6% of the cases as benign (BPH, BPH with prostatitis, while 13.3% of cases were malignant (adenocarcinoma).

#### Aim & Objective

- To study the histopathological spectrum of Prostatic lesion in TURP specimen received in our department.
- To assess the distribution of various prostatic lesions according to age group
- To correlate the various prostatic lesions with the PSA value

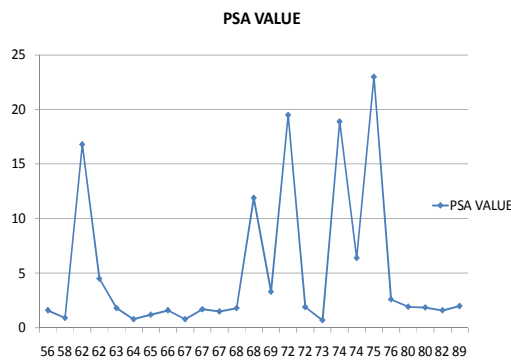
### MATERIALS & METHODS

It was a 1 year study done retrospectively from January 2018 to december 2018 in 30 TURP specimen It was conducted in histopathology section of pathology department and biochemistry department of SBMCH. Retrospective analysis of all TURP specimens received in the department was done. All histopathological data, pertaining to TURP specimen maintained in the histopathology section were retrieved and reviewed. Clinical details and laboratory values were taken from the computer data base. Each case was analysed with respect to age, clinical presentation and microscopic diagnosis.

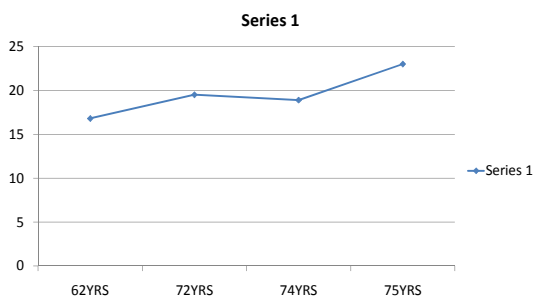
### RESULT

During one year 30 TURP specimens were received in our department . Age of patients ranged from 50 years to 90 years. Maximum cases were seen after 60 years of age. Most of the TURP specimen were observed from patients in age group of 61-70 years followed by 71-80 years. The most common age group presenting with benign prostate hyperplasia were 61-70 years. Prostatic cancer was most commonly seen in 7<sup>th</sup> decade. We were able to determine the spectrum of prostatic lesions in different age groups, and the results indicate that the chances of finding malignancy with increasing values of PSA are more, but not a rule. It can only give a clue to the histopathologist to examine the sections more thoroughly.

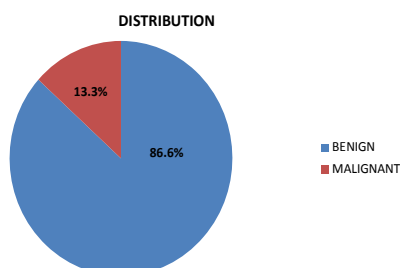
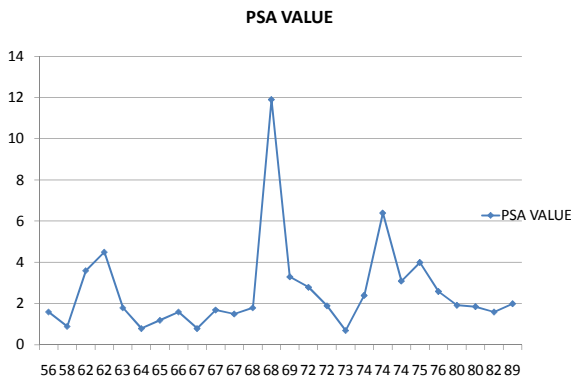
### CORRELATION WITH AGE



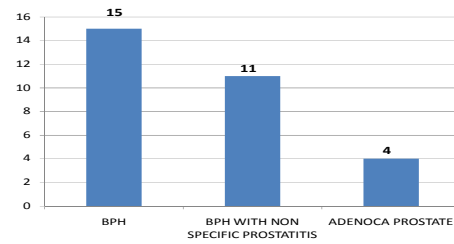
### MALIGNANT LESION



### BENIGN LESIONS



### PATHOLOGICAL LESIONS



NORMAL PSA VALUE		ABNORMAL PSA VALUE	
83.4%		16.6%	
PSA VALUE RANGES IN ng/ml	Adenocarcinoma Prostate	BPH	BPH WITH NON SPECIFIC PROSTATITIS
< 4		25 cases	
4-10			
10-15			1 case
15-20	3 cases		
20-25	1 case		

### DISCUSSION

In this study we were correlated the age of the patient with the PSA value, PSA values in benign lesions of prostate, PSA values in the malignant lesions of prostate. Compared the normal PSA value & the abnormal PSA value and distribution of benign & malignant cases. We have consolidated the dates in the following bar diagrams, line diagram & pie chart.

### CONCLUSION

In this study, we found prostatic lesions were mostly associated within the age group of 61-70 years. With the mean age of 69 years. This study shows 86.6% of the cases as benign (BPH, BPH with prostatitis, while 13.3% of cases were malignant (adenocarcinoma). In our study, most of the patients with benign pathology had PSA in the range of 0-7 ng/ml (83.4%) and one benign lesion shows increased PSA value of 12 ng/dl(3.3%). And only a few (13.3%) had PSA levels between 15-25ng/ml owing to the prostatic malignancy. PSA is most important test used in diagnosis and management of prostatic cancer. However elevated serum of PSA do not always result from prostate cancer. Benign conditions such as bacterial prostatitis, urinary retention and benign prostatic hyperplasia may also cause elevation in serum PSA levels PSA value is highly sensitive marker for prostatic lesion, but shows lack of specificity in prostatic cancer.

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