



## HISTOPATHOLOGICAL SPECTRUM OF PROSTATIC LESION : 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 and mortality. This study was done over one year period retrospectively in the department of pathology GMC Jammu to study the histopathological spectrum of Prostatic lesion in TURP specimen received in our department. **Result**- During the study period, 96 TURP specimens were received in our department. Age of patients ranged from 40 years to 90 years with a mean age of 54 years. Prostatic cancer was most commonly seen in 7th decade. Out of 96 cases 89 (92.7%) were benign cases whereas 7 cases (7.3%) were found to be malignant. Benign hyperplasia of prostate (BPH) was the most common histological diagnosis (50 cases). It was followed by case of BPH with chronic prostatitis (36 cases) and 3 cases of BPH with basal cell hyperplasia among the benign lesions. Most common clinical presentation was increase in frequency of micturition. **Conclusion**- Benign lesions were more common than malignant lesions. Maximum patients who were affected were in 6th decade presenting with increased frequency of micturition.

### KEYWORDS :

#### 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. Transurethral resection of prostate is a common urological procedure primarily used for the surgical management of benign prostatic hyperplasia (BPH) (1). Prostate cancer is the most common cancer and the second most common cause of cancer related death in men. (2) Prostatic cancer is responsible for 3% of all death in men over 55 years of age (3). Gross examination of prostate cancer may be difficult or impossible and definite diagnosis requires microscopic examination.

**Aim**- To study the histopathological spectrum of Prostatic lesion in TURP specimen received in our department.

**Material and Method**- It was a 1 year study done retrospectively from May 2016 to April 2017. It was conducted in histopathology section of pathology department of GMC Jammu. 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. Histology slides of all cases were reviewed. Staining was done by Haematoxylin and Eosin stains. Each case was analysed with respect to age, clinical presentation and microscopic diagnosis. Prostatic carcinomas were classified using Gleason's score. Prostatectomy specimen and prostatic biopsies were excluded from our study.

#### Result

During one year 96 TURP specimens were received in our department. It makes 3% of all the specimens (3000) received in surgical sections. Age of patients ranged from 40 years to 90 years with a mean age of 54 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 prostatic hyperplasia were 61-70 years. Prostatic cancer was most commonly seen in 7th decade.

Out of 96 cases 89 (92.7%) were benign cases whereas 7 cases (7.3%) were found to be malignant.

Benign hyperplasia of prostate (BPH) was the most common histological diagnosis (50 cases). It was followed by case of BPH with chronic prostatitis (36 cases) and 3 cases of BPH with basal cell hyperplasia among the benign lesions.

Prostatic carcinoma was diagnosed in 7 cases. All were histologically adenocarcinoma. These cases were previously not suspected of malignancy and were detected incidentally on TURP specimen. 5 cases were poorly differentiated with Gleason score of more than 8 while 2 cases were moderately differentiated with a score of less than 6. All the cases were above and equal to 60 years of age.

Most common clinical presentation was increase in frequency of micturition (70%) followed by difficulty in voiding of urine (46%), acute retention (20%) and dysuria (16%).

#### Discussion

During one year 96 TURP specimens were received in our department. It makes 3% of all the specimens (3000) received in surgical sections. Age of patients ranged from 40 years to 90 years with a mean age of 54 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. Similar pattern was reported by Mathi A et al (4) and Puttaswamy K et al (5).

The most common age group presenting with benign prostatic hyperplasia were 61-70 years. Similar to study done by Arya RC et al (6) and Kumar M et al (7). Prostatic cancer was most commonly seen in 7th decade which was similar to that seen in study done by Kasliwal N et al (8) and Deshmukh BD et al (9).

Out of 96 cases 89 (92.7%) were benign cases whereas 7 cases (7.3%) were found to be malignant. Similar to the studies done by Joshee A et al (10) and Burdak P et al (11).

Benign hyperplasia of prostate (BPH) was the most common histological diagnosis (50 cases). It was followed by case of BPH with chronic prostatitis (36 cases) and 3 cases of BPH with basal cell hyperplasia among the benign lesions. Similar to the study done by Puttaswamy K et al (5) and Sharma A et al (12).

Prostatic carcinoma was diagnosed in 7 cases. All were histologically adenocarcinoma. These cases were previously not suspected of malignancy and were detected incidentally on TURP specimen. 5 cases were poorly differentiated with gleason score of more than 8 while 2 cases were moderately differentiated with a score of less than 6. All the cases were above and equal to 60 years of age.

Most common clinical presentation was increase in frequency of micturation (70%) followed by difficulty in voiding of urine (46%), acute retention (20%) and dysuria (16%). Similar to that seen in study done by Anushree CN et al (13). However Puttaswamy K et al (5) found hesitancy to be the most common symptom seen in 51.6% cases in his study.

**Conclusion**-Benign lesions were more common than malignant lesions. Maximum patients who were affected were in 6th decade presenting with increased frequency of micturation. Histological study of TURP specimen is mandatory so as not to miss a malignancy.

**Table 1** Distribution of prostatic lesion

Lesion	No. of cases ( n= 96)	Percentage(%)
Non Neoplastic	89	92.7%
Neoplastic Lesion	7	7.3%
Total	96	100

**Table 2** Age wise distribution of the lesion.

Age	Nodular hyperplasia	Nodular hyperplasia with chronic prostatitis	Nodular hyperplasia with basal cell hyperplasia	Prostatic carcinoma
31-40	1	-	-	-
41-50	-	-	-	-
51-60	12	-	-	1
61 -70	30	21	2	2
71-80	5	15	1	4
.>81	2	-	-	-
Total	50	36	3	7

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