



TO STUDY SPECTRUM OF HISTOPATHOLOGICAL LESIONS OF PROSTATE AT TERTIARY CARE HOSPITAL.

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Introduction:

The prostate is the largest accessory gland in the male reproductive system, playing a crucial role in fertility by secreting proteolytic enzymes. These enzymes help break down clotting factors in the ejaculate, enabling sperm to remain fluid and facilitating their movement through the female reproductive tract. This study aims to investigate the spectrum of histopathological lesions of the prostate in patients at a tertiary care hospital, providing insights into the prevalence and types of prostatic diseases encountered in a clinical setting.

Aims and Objective:

- This study was conducted to study histopathological examination of prostatic lesion.
- To calculate prevalence of various prostatic lesions.
- To know the most common age group in which prostatic lesions appear.

Methods and material

This study was conducted in the Department of Pathology at S.B.K.S. MI & RC, Vadodara (Sumandeep Vidyapeeth University). A total of 61 patients were enrolled, all of whom were admitted to Dhiraj General Hospital. In this observational study, retrospective data were collected and analyzed for patients with prostatic lesions admitted between December 2022 and October 2023. The 'TURP' chips received were analyzed through histopathological examination and classify the lesion according to the various categories of inflammatory, benign and malignant.

Result

The table provides a detailed breakdown of benign versus malignant prostatic lesions in 61 patients. Among the benign conditions, Benign Prostatic Hyperplasia (BPH) was observed in 19 cases (31.14%), and BPH with acute or chronic inflammation was found in 33 cases (54.09%). Additionally, one case (1.63%) involved BPH with an abscess. In contrast, malignant lesions, specifically prostatic carcinoma, were identified in 8 cases (13.11%). This distribution underscores that the majority of the prostatic lesions were benign, with inflammation being a common feature, while a smaller portion was malignant.

	BPH	BPH WITH ACUTE/ CHRONIC INFLAMMATION	BPH WITH ABSCESS	PROSTATIC CARCINOMA	TOTAL
NUMBERS OF CASES	19	33	1	8	61
PERCENTAGE (%)	31.14	54.09	1.63	13.11	100

Table 1.1: Distribution of Prostatic lesion

The table details the age-wise distribution of cases for prostatic lesions among 61 patients. The highest frequency of cases is seen in the 66-70 years age group with 12 cases. This is followed by 61-65 years with 11 cases, and 56-60 years with 9 cases. The 50-55 and 71-75 years age groups each have 7 cases, while both the under 50 years and over 75 years age groups also have 7 cases each. The data indicates that prostatic lesions are most common in the 61-70 years age range.

Table 1.2 :Age wise distribution of cases

AGE	<50YEARS	50-55YEARS	56-60YEARS	61-65YEARS	66-70YEARS	71-75YEARS	>75YEARS
NUMBERS OF CASES	5	10	9	11	12	7	7

Discussion:

As we can observe, out of 61 samples,only 8 (13.11%)are of malignant in nature. Whereas 53 (86.89%)are of benign in nature. Similar results were seen in study conducted by Aslam HM et al¹ (87.5%) of cases were benign and Manjit Singh Bal SK et al² (87.5%).

Most common age group ranges from 61-70 years, similar results were seen in Aslam HM et al¹ and similar results seen in Kumar V at el³.

The incidence of hyperplasia rises with age, particularly from the fifth to the seventh decade of life, suggesting it may be a typical aspect of aging. The hyperplastic process is thought to be primarily driven by impaired cell death, leading to a decreased rate of cell death and the accumulation of senescent cells in the prostate. Additionally, it is

believed that DHT-induced growth factors promoting the proliferation of stromal cells and epithelial cells.⁴

contribute to this condition by reducing the death of

Conclusion:

The study of histopathological lesions of the prostate at a tertiary care hospital reveals that benign prostatic hyperplasia (BPH) is the most common lesion, particularly in men over 60. These findings highlight the critical role of histopathological evaluation in diagnosing and managing prostate diseases, ensuring appropriate clinical intervention and treatment strategies.

References

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