

Occult Malignancy in Benign Prostatic Hyperplasia

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ABSTRACT

This is a study of the incidence of occult malignancy in 222 patients suffering from benign hypertrophy of the prostate, diagnosed clinically. After the necessary investigations, these patients underwent transvesical prostatectomy. The histopathology of the prostate revealed that 19 prostates had microscopic foci of malignancy in them and the remaining 203 showed benign hyperplasia of the prostate. This incidental finding of malignancy was predominant in the sixth and seventh decade. A retrospective analysis did not show clinically differentiating features in either entity.

INTRODUCTION

Carcinoma of the prostate is the second most common form of cancer in males and the third leading cause of death due to cancer.¹ In addition to these neoplasms, there is another biological form of prostatic cancer

MATERIAL AND METHODS

This study is a clinico-pathological analysis of 222 cases of transvesical prostatectomy done over a span of 7 years. These 222 cases were taken up for study as they did not evidence malignancy, either clinically or on investigation.

The biopsy specimens were examined for evidence of malignancy. Of the 222 cases of clinically benign hypertrophy of the prostate, 19 cases were found to show evidence of malignancy.

AGE

The maximum age incidence of benign hypertrophy of the prostate was found to be in the 6th and 7th decade, with an average age of 60.68 years (Table 1). In cases of occult malignancy of the prostate, too, the maximum incidence was in the 6th and 7th decades, with an average age of 64.15 years.

TABLE I

S.No.	Histopathological diagnosis	Less than 50	50-60	61-70	71-80	81-90	Total cases	Average age
1.	Benign hyperplasia of prostate (BHP)	9	102	68	20	4	203	60.68
2.	BHP with occult carcinoma	—	7	9	3	—	19	64.15

which is discovered incidentally, either at the postmortem examination or in a surgical specimen removed during prostatectomy. In almost all the instances, the lesions are small and comprise only microscopic foci. This form is called "Occult Carcinoma".¹

SYMPTOMATOLOGY

The three common modes of clinical presentation were (a) acute retention of urine, (b) chronic urinary retention and (c) prostatism, characterised by perineal

pain, urgency, precipitancy, frequency and hesitancy.

It was observed that the symptoms were mostly the same for both entities. We did not observe a high occurrence of dysuria in cases of occult carcinoma as cited by Sharma et al.²

A macroscopic study of all the enucleated prostates was made after taking cut sections. There was no significant macroscopic change as is seen in other malignancies.

HISTOPATHOLOGICAL EXAMINATION

Microscopic studies of these specimens were meticulously made. For the microscopic recognition of occult malignancy, the following criteria were laid down by Franks.³ 1) Small, disorderly-placed acini, 2) Decrease in epithelial infolding, 3) Decrease in fibromuscular tissue around the acini, 4) Loss of the lamina propria.

In the 19 positive cases, the tissue diagnosis were

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|-----------------------|----------|
| (a) Adenocarcinoma | 15. |
| (b) Anaplastic | 1. |
| (c) Carcinoma in situ | 3. |

The average age of these patients was 64.15 years and the range was 50 to 80 years.

Of the 15 cases of adenocarcinoma of the prostate (Fig. 1) two cases were poorly differentiated and two were of the infiltrating type. The anaplastic type and the carcinoma in situ are shown in figures 2 and 3, respectively.

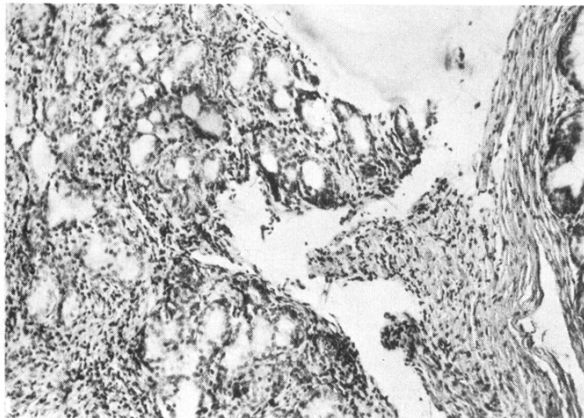


Figure 1: Photomicrograph shows a complicated, small, tubular pattern of prostatic carcinoma in the left side of the photomicrograph. Hyperplastic glands are seen at the right edge of the picture. (H & E, X 120).

DISCUSSION

Nodular hyperplasia of the prostate is still, referred

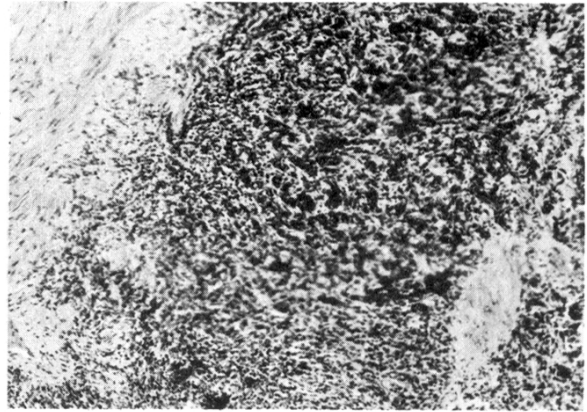


Figure 2: Photomicrograph shows diffusely infiltrating malignant epithelial cells of the prostatic glands into the fibromuscular stroma. (H & E, X 120).



Figure 3: Photomicrograph shows considerable stratification of the lining epithelial cells in a few glands in the left and upper part of the photomicrograph, indicative of carcinoma in situ. (H & E, X 120).

to by the redundant term, 'benign hyperplasia of the prostate.' Though the malignancy is less common, it forms a large group among elderly males.¹ An unselected series of post-mortem disclosed nodular hyperplasia in 50%–60% of men between 40–59 years of age.⁴ The role of nodular hyperplasia as a precursor of malignancy is still in dispute, but the consensus of opinion does not hold this benign lesion to have any relationship with the development of prostatic cancer.⁵ Approximately 30% of males over the age of 50 harbour an occult stage-A cancer of the prostate.⁶

Our study showed the incidence of carcinoma to be 8.56%. Muir's study (1955) showed 13%; Hand and Sullivan's (1951), 13%; Andrew's (1949) showed 15%; and

TABLE II

Study	Occult carcinoma	Age in years				Range in years	Average age
		50-59	60-69	70-79	80-90		
1. Sharma et al (1972)	13	1	10	—	2	57-85	66.6
2. Present study	19	7	9	3	—	50-80	64.15

Sharma et al. 13% 2. In our study of 19 cases of occult carcinoma, 84.2% were in the 6th and 7th decade and 15.78% in the 8th decade, as compared to Sharma et al (1972) who found an incidence of 84.59% of occult malignancy between the 6th and 7th decades of life (Table II). In the present report on occult malignancy in benign hypertrophy of prostate, we have not been able to make any symptomatological specification pertaining to occult malignancy.

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