To delineate the histopathological pattern of prostate diseases and to highlight the age variations, prostate specific antigen (PSA) values and histopathological features

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Aim: To delineate the histopathological pattern of prostate diseases and to highlight the age variations, prostate specific antigen (PSA) values and histopathological features.

Methods: A retrospective review was made of all prostate biopsy reports seen between January 2006 and December 2013 at the King Fahad Hospital, Madinah, Saudi Arabia. Outline of prostate lesions were tabulated and classified into benign and malignant lesions. Histological scoring of adenocarcinoma was done using the Gleason system. PSA values were correlated with Gleason scores.

Results: Of 417 prostate tissues reviewed, 343 specimens (82.3%) were benign lesions and 74 specimens (17.7%) were malignant lesions giving a benign to malignant ratio 4.6:1. Benign prostatic hyperplasia (both with and without inflammation) was the commonest prostatic lesion and accounted for 80.3% of all cases and 97.6% of all benign cases. The age range was 20 to 97 years with a mean of 69.2 years and a peak age group at 70-79 years. Malignant tumors constituted 17.7% of all prostatic biopsies. Seventy one cases of adenocarcinoma accounted for 95.9% of the total 74 malignant tumors. It showed an age range of 44 to 95 years, a mean age of 70.9 years and peak prevalence in the 80-89 year age group. Gleason score seven was the most frequent (39.4%) in occurrence. Most adenocarcinomas, 41 cases (57.7%), were moderately differentiated carcinomas (Gleason score of 5-7). PSA values ranged widely between 16-1865 ng/ml with a mean of 363.4 ng/ml. Elevated PSA (>100 ng/ml) levels were found in 53 (81.6%) patients. There was a statistically significant positive correlation between serum PSA level and Gleason score (P=0.0304).

Conclusion: Prostatic lesions constitute a significant source of morbidity among adult males in Madinah. Benign prostatic hyperplasia was the commonest benign prostatic lesion and adenocarcinoma was the commonest histological subtype of prostatic cancer.

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