## Spectrum of Prostate Cancer in the Singapore General Hospital (1980 to 1985)

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## **Abstract**

Introduction: Serum prostate specific antigen (PSA) testing has contributed to a dramatic rise in the incidence of prostate cancer diagnosed in the last decade in the West as well as in Singapore. Now prostate cancer is ranked as the sixth commonest cancer among men in Singapore. To form the basis for comparisons and to assess the trends and impact of these changes, we analysed the presentation, disease characteristics and outcome of treatment of patients with prostate cancer diagnosed in the pre-PSA era at the Singapore General Hospital (SGH). Materials and Methods: Of the 149 patients (1980 to 1985) registered in the database, 134 (90%) records with full follow-up data were available for the analysis. All patients were diagnosed and managed at SGH. Follow-up and death data were collected through clinic visit, phone interviews of the patients, relatives, family physicians and the death registry. Survival analysis was carried out using the Kaplan-Meier product limit method. Results: The mean age at diagnosis was 69.8 years. There were no significant changes with reference to each year during 1980 to 1985 and the mean number of diagnoses per year was 22.3. Of the 134 patients, 86% had either retention of urine or severe lower urinary tract symptoms and 14% had metastatic disease at presentation. Most histological diagnosis was made during prostatectomy; wherein 82% was found with transurethral resection of the prostate (TURP) and 12% in open prostatectomy, respectively. Pathological analysis during diagnosis revealed that 72.4% patients had metastatic disease. Of which, 57.5% had high-grade (Gleason >7) tumours. Among these, 82% underwent TURP to relieve urinary obstruction, while 26.1% received local irradiation to the prostate. Majority had hormone therapy shortly after diagnosis in the form of orchidectomy or oral diethylstilbestrol (76.1%). The median crude survival (26 months) was minimal for metastatic patients. Conclusion: The spectrum of prostate cancer in the pre-PSA era was characterised by high stages of high-grade disease, with very limited opportunity for successful treatment and hence survival.

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