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A descriptive study of prostate cancer in biopsy specimens in a tertiary care centre in Sri LankaP.G.A.N. Jayathilaka¹, M.A.D.N. Munasinghe¹, S.M. Fernandopulle¹, S.J. De S. Hewavisenthi²¹Department of Histopathology, Colombo North Teaching Hospital, Sri Lanka²Department of Pathology, Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction: Prostate cancer is the fifth most common cancer in the world and the second most common cancer in men. Serum prostate-specific antigen (PSA) is used to detect prostate cancer but the gold standard in the diagnosis is trans-rectal ultrasound-guided (TRUS) biopsy.

Objective: To describe the pathological findings of TRUS biopsies and the clinical findings of the patients undergoing TRUS biopsies in a tertiary care unit in Sri Lanka.

Methodology: All TRUS biopsies reported by the Department of Pathology, Colombo North Teaching Hospital, between January 2017 and December 2020 were included in the study. Clinical and histological findings were retrieved from the request forms and the Department database.

Results: There were 341 TRUS biopsies. The age range of patients included in the study was 26-90 years. The majority were between 61 and 80 years of age (<60 years-38;11.1%, 61-70years-142;41.6%, 71-80 years-143;41.9% and >80years-18;5.3%). Serum PSA levels ranged from 0.5 to 9930 ng/ml with a mean of 109.7 ng/ml (SD-611.9). Benign features were noted on digital rectal examination (DRE) in 171/341 (50.1%) patients, while 170/341 (49.9%) had malignant features. Benign histological findings were present in 229/341 (67.2%) patients, and 112/342 (32.8%) patients were diagnosed with prostate cancer on histology. The mean PSA level of patients with benign histology was 28.3 ng/ml (SD-158.6), and those with malignant histology were 276.3 ng/ml (SD-1026.5). The commonest Gleason scores was 7 (39/112;34.8%) followed by 6 (16/112;14.3%), 8 (18/112;16.1%), 9 (32/112;28.6%) and 10 (7/112 ;6.3%). The mean tumour burden was 52.6% (SD- 32.1).

Discussion and conclusion: As the published data pertaining to prostate cancer in Sri Lanka is limited, this study will provide an overview of clinical and pathological features in TRUS biopsies in a cohort of patients in Sri Lanka.

Keywords: prostate, prostate specific antigen, transrectal ultrasound, digital rectal examination

Corresponding author: Dr Amali Jayathilaka
Department of Histopathology,
Colombo North Teaching Hospital, Sri Lanka
amalinijaya@gmail.com



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