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## INTRODUCTION

The prostate is an exocrine gland composed of both glandular and non glandular tissue. The prostate is the most frequently diseased organ in men. Many benign and malignant pathological conditions can affect the prostate. The most common prostatic diseases are benign prostatic hypertrophy (BPH) and carcinoma.

A variety of radiological modalities have been used for imaging of the prostate conventional radiologic techniques-intravenous urogram (IVU), voiding cystourethrogram (VCUG) and retrograde urathrogram-depend on evidence of prostatic enlargement or contour distortion to identify prostatic pathology, and thus have a very limited role in the evaluation of prostatic diseases.

The ability to depict intraprostatic diseases has markedly improved with the advent of cross-sectional imaging modalities, such as CT, USA and MRI.

Computed tomography has been shown to be unable to visualize intraglandular changes. It has some pitfalls in staging of extracapsular extension of carcinoma, since the tumour and other soft tissue have similar X-ray attenuation. C.T. has high accuracy in evaluation of nodal metastases ranged from 63% to 67% (*Naryon and Foster, 1991*).

Recent developments in Ultrasound technology have made US one of the most reliable diagnostic modalities for evaluation of the prostate via the suprapubic, perineal, transurethral and transrectal approaches.

Transrectal ultrasound (TRUS) has emerged as the best imaging modality of the prostate. Its use has led to an improved understanding and demonstration of intraglandular anatomy. For benign prostatic disease, TRUS is considered the primary imaging modality. It is used for screening, diagnosis, staging and monitoring of prostate cancer and for guiding biopsy from the suspicious lesions (*Kammermeir, 1991*).

However, many questions remains about the appropriate role of TRUS in the evaluation of prostatic pathology. It has high false positive results as many benign lesions may mimic malignancy e.g. nodule of BPH, granuloma, abscess, cyst, scar tissue after previous biopsy and haematoma (*Kammermeir, 1991*).

The aim of this study, is to demonstrate the technique of examination and the normal anatomy of the prostate, using TRUS. The role of the recent imaging modalities applicable to the prostate (especially TRUS) will be assessed in the diagnosis of the different pathological entities.