

Value of diffusion-weighted sequences in the study of prostate cancer in patients with increased prostate specific antigen levels Valor de la secuencia de difusión en el estudio de cáncer de próstata en pacientes con antígeno prostático específico el

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In prostatic carcinoma, the glandular architecture is replaced by cancer cells producing barriers to water motion, anomaly that can be studied through diffusion-enhanced MRI technique. To assess the contribution of these sequences in the prostate cancer exploration, we conducted a descriptive and inferential study using diffusion-enhanced MRI technique in 26 patients with abnormal digital rectal examination (DRE) and increased prostate specific antigen (PSA) values. We analyzed sensitivity, specificity and ROC curves based on apparent diffusion coefficient (ADC). Seven out of 14 biopsies were positive in patients undergoing prostate biopsy. When applying $ADC < 1000 \mu\text{m}^2/\text{se}$, high sensitivity with low specificity levels, as well as moderate predictive values were obtained. By incorporating T2-weighted images, improved diagnostic accuracy, specificity and predictive values were achieved. When comparing ADC values in tissues with and without cancer, average and minimum ADC appeared to exhibi