TO DETERMINE THE EFFECTIVENESS OF IMMUNOHISTOCHEMISTRY IN DIFFERENTIATING PROSTATIC ADENOCARCINOMA FROM CANCER MIMICKERS

ABSTRACT

Introduction: Prostate cancer produces a major health problem, being the second most common cancer in men. So early recognition and treatment is necessary. Sometimes the differentiation of prostatic adenocarcinoma from benign lesions which mimic adenocarcinoma cannot be done on the basis of morphologic findings. So immunohistochemistry using basal cell markers and cancer specific markers can be helpful to differentiate prostatic adenocarcinoma from cancer mimics.

Aim of the study: To determine the effectiveness of immunohistochemistry using antibodies against p63 and α-methyl acylcoA racemase (AMACR) in differentiating prostatic adenocarcinoma from cancer mimickers.

Materials and methods: A total of 54 cases were studied which included 24 prostatic adenocarcinoma, 22 prostatic intraepithelial neoplasia (PIN) and 8 benign mimickers of adenocarcinoma cases, selected from transurethral resection of prostate specimens (TURP) and prostatic needle biopsies.

Results: In this study p63 was positive in all benign mimickers of adenocarcinoma and 21 PIN cases. p63 was negative in all prostatic adenocarcinoma cases. AMACR was positive in all adenocarcinoma and 1 benign mimicker of adenocarcinoma. AMACR was negative in all 22 PIN and 7 benign mimickers of adenocarcinoma cases. In our study p63 had 100% sensitivity and 100% specificity, whereas AMACR

had 100% sensitivity and 88% specificity in diagnosing prostatic adenocarcinoma and cancer mimickers.

Conclusion: Combination of p63 and AMACR is of great value in differentiating prostatic adenocarcinoma from cancer mimickers.

Key words: AMACR, p63, immunohistochemistry, adenocarcinoma, cancer mimickers, prostatic intraepithelial neoplasia.