

ABSTRACT

AIM AND OBJECTIVES:

The present study is aimed at evaluating the importance of Argyrophilic Nucleolar Organizer regions (AgNORs) in differentiating benign, premalignant and malignant lesions of the prostate and also to correlate the AgNOR count with histological grade in prostatic carcinoma and to evaluate AgNOR study as a diagnostic and prognostic marker in prostate cancer.

MATERIALS AND METHODS:

A total of 33 various prostatic lesions were studied during the period June 2016 to May2017 which includes benign prostatic hyperplasia, prostatic intraepithelial hyperplasia and prostatic adenocarcinoma.

All those 33 prostate specimens were selected and then fixed with 10% formalin, embedded in paraffin and stained with haematoxylin& eosin and AgNOR stain.

RESULTS:

The incidence of Benign Prostatic Hyperplasia was highest in the study with 23 cases contributing to 69.7%, followed by 9 cases of prostatic carcinoma comprising of 27.3 % of cases and one case of Prostatic

intraepithelial neoplasia constituting 3%. BPH was the most common lesion in all age groups. However the incidence of prostatic carcinoma increased in the age group 71-80 years constituting 44.4% and BPH constitutes 55.6% in this age group. In the present study, mean AgNOR count in Benign prostatic hyperplasia is low and found to be 1.5 whereas in prostatic adenocarcinoma it is highest of about 5.22 .

From the statistical analysis of the present study, p value was <0.05 . AgNOR staining is found to be both sensitive and specific marker to distinguish benign and malignant prostatic lesions.

CONCLUSION:

AgNORs proves to be a simple, inexpensive , reliable method among other proliferative markers and can be used along with haematoxylin and eosin stained slides to distinguish between prostatic adenocarcinoma and benign prostatic lesions in doubtful cases and also in highlighting the aggressiveness/ prognosis of the cancer.

Key words: AgNORs, Benign Prostatic Hyperplasia, adenocarcinoma