
“Histomorphology pattern, Histochemical stain and Immunoexpression of endometrial biopsies in women with abnormal uterine bleeding in tertiary care hospital.”

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ABSTRACT

AIMS AND OBJECTIVE: To study the histomorphological pattern of endometrial biopsy with Abnormal uterine bleeding. To study histochemical stains (PAS and Alcian blue pH 2.5) and immune-expression of p53 and PTEN in various endometrial lesions. To correlate the histochemical staining and immunoexpression pattern in various endometrial lesions.

TYPE OF STUDY: Cross sectional study.

MATERIALS AND METHODS: A total of 90 endometrial biopsies were collected which came to Department of Pathology, Histopathology laboratory from period of 2021 to 1st June 2022. Blocks were retrieved. H&E, Special stain (PAS, Alcian blue at Ph2.5) & IHC (P53 & PTEN) were performed on all 90 cases.

RESULTS: The maximum incidence of AUB was in age group 41-50years. (46.67%). The most common bleeding pattern encountered in AUB was menorrhagia (50%), postmenopausal bleeding (20.22%), menometrorrhagia (15.56%), metrorrhagia (3.33%), polymenorrhea (3.33%) & oligomenorrhea (1.11%) Incidence of AUB found to be highest in multiparous women & least in nulliparous women. Maximum cases of carcinoma are seen in postmenopausal age group. Alcian blue ph 2.5 helps in differentiating normal cyclical endometrium & benign hyperplasia from premalignant & malignant lesion. Loss of PTEN expression is seen in predominantly Type 1 endometrial carcinoma & EIN while normal cyclical endometrium & benign hyperplasia show strong PTEN protein expression. P53 is expressed predominantly in Type 2 endometrial carcinoma like serous, clear cell, MMMT & dedifferentiated and undifferentiated carcinoma.

CONCLUSION: Patients with AUB have endometrial hyperplasia as common histopathology finding. Histochemical stains like Alcian blue pH2.5 helps in differentiating benign lesions of endometrium from premalignant and malignant lesions. PTEN aids in differentiating benign, premalignant and malignant lesions by different protein expression in various groups and it is expressed more in Type 1 endometrial carcinoma as compared to

Type 2 endometrial carcinoma. Comparing about correlation between histochemical stain and Immunohistochemisry, Alcian blue can be used as a diagnostic tool correlating with P53 and PTEN for identifying the differentiation of tumor as well as differentiating between benign lesions from premalignant and malignant lesion.