Proliferative and Apoptotic Indices in Squamous Epithelial Lesions of the Cervix

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Background: Cell proliferation is an important feature of dysplasia and carcinoma. Cell death (apoptosis) is another phenomenon which is responsible for the control of cell number in normal and neoplastic tissue. Simple indices can be used to measure cell proliferation and apoptosis.

Objective: To compare the proliferative and apoptotic indices in various cervical squamous epithelial lesions, and to determine their prognostic value.

Method: Two hundred lesions were evaluated for their morphology, apoptotic index (AI), mitotic index (MI), and argyrophilic nucleolar organiser region (AgNOR) counts.

Result: Mean AI, MI and AgNOR counts significantly increased from benign lesions, to cervical intraepithelial neoplasia (CIN), to invasive carcinoma.

Conclusion: AI, MI and AgNOR counts are useful cell kinetic analysis because they reflect the frequency of two important events, namely mitosis and cell death. These counts can be useful as prognostic markers and aid patient management decisions.

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