

Immunohistochemistry using in detection of Frequency of P16INK4A tumor suppresser gene overexpression in woman infected with cervical carcinoma in mid Euphrates

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Abstract : This study was designed as a retrospective research. A total number of (56) formalin-fixed, paraffin embedded cervical tissues were included. 27 with malignant cervical carcinoma (CC) and 16 with benign cervical tumors, 13 apparently healthy cervical tissues were used as a control group. The age of these individuals (patients and control groups) ranged between 23 and 73 years. They were collected from the pathological archives of teaching laboratories at many different private histopathological laboratories in Babil, AL-Najaf, Kerbela, AL-Qadisiya, during the period from April 2015 to January 2016. After sectioning of these cervical biopsies and staining by hematoxyline and eosin, a final definitive histopathological diagnosis was done by a consultant histopathologist. The study was designed as Immunohistochemical study to demonstrate the expression state of tumor suppressor genes (P16) in those tissues with cervical carcinoma, benign tumors as well as apparently healthy cervical tissues. The obtained results are summarized as follows: the most affected age of the patients with cervical carcinoma (68-83 years) were represented by 100% while the most affected age of the benign tumors group and control was (20-35) were represented by 53%.40% respectively. The most common histopathological type among all studied archived cervical carcinoma was squamous cell carcinoma 66,6% followed by the adenocarcinoma 33.3%. Over expression of p16 was detected by IHC in 48.1% (13 out of 27) cervical cancer cases and in 43.7%(7 out of 16) benign cervical tumor group, while none of control group showed P16- over expression. A high percentage 46.2% (6 out of 13) in cervical cancer while 42.9% (3 out of 7) found in benign cervical tumor group has a moderate score (score II). In the present study the highest percentage of p16 expression showed within cervical cancer cases was 53.8%, and 42.9% within benign cervical tumor group that have moderate signal intensity. The present study showed the high percentage of over expression of p16 was 52% found within age group (36-51 years) followed by 36%, 34%, 25% in age group (52-67 years), (20-35 years), (68-83 years) respectively. The present study showed the high percentage 50% of p16 INK4A overexpression found within squamous cell carcinoma.