Graciela Ghirardi, J Clin Exp Pathol 2017, 7:4(Suppl)
DOI: 10.4172/2161-0681-C1-037

Atypical immature metaplasia and importance of p16 and Ki-67 immunohistochemical expression in a city of South America

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Introduction: The term Atypical Immature Metaplasia (AIM) was coined in 1983 to describe a squamous proliferation of the cervical transformation zone and glands associated with abnormal cytology and colposcopic findings. This condition may be a precursor of HPV integration. This subject is controversial because its biological and clinical significance are not well defined. Colposcopy suffers from the same diagnostic difficulties than cytology and pathology. The effect of gene inactivation in the cervical epithelium was investigated for the overexpression of p16 protein by Immunohistochemistry (IHC), which results in the loss of activation of Rb by the E7 protein of high-risk HPV.

Aim: Aim of this study is to demonstrate the use of biological markers, such as p16 and Ki-67, which can be useful when diagnosing lesions with AIM.

Materials & Methods: A descriptive study of the IHC expression of p16 and Ki-67 in 60 formalin-fixed paraffin-embedded cervical biopsies obtained from the private archive of a Pathology Laboratory was conducted.

Results: Negative cases for both p16 and Ki-67 represented 69% of HPV lesions without dysplasia, whereas high-grade lesions (CIN III) were 100% positive for both p16 and Ki-67. CIN I lesions were positive in 64% of the cases for both markers, and the rest were negative. CIN II lesions scored higher for p16 positivity, yielding positive results in 54% of the cases and 14% for Ki-67.

Conclusions: MIA is a complex entity can be associated with HSIL. The similarities between the MIA and LSIL could be considered as form of LSIL. p16 is a marker for HPV-induced dysplasia. We suggest cautious behavior for the sake of diagnostic accuracy. Considering the increased incidence of cervical carcinoma and its relationship to HPV, it is useful to use biological markers such as p16 and Ki-67, that may allow to determine the possible progression of SIL to invasive carcinoma as more economical tool that may be more in tune with the socio-economic reality of Latin America and cost-effective, when compared to other more expensive techniques.

Biography

Graciela Ghirardi has completed her medical studies at the age of 23, at the UNC. She was resident and chief resident pathological anatomy Hospital Córdoba and the Founder of pathological anatomy service in hospital city of Alta Gracia. She was the specialist in pathological anatomy and exfoliative cytology awarded by the CNPC. To 29 years. She has presented 51 times lecturer at national and international congresses. She is the author or co-author of 101 scientific papers.

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