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<td><strong>Title</strong></td>
<td>Pap smear: new markers</td>
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<td><strong>Author(s)</strong></td>
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**Aim**
Cervical carcinoma is a frequent cancer in women world-wide. Since the introduction of population-wide mass screening with the cytological Papanicolaou’s test (Pap), the incidence of invasive cervical cancer has sharply declined. Despite this success, cytological screening with the Pap test has substantial limitations, mainly with regards to sensitivity. Which leads to research new markers among them P16 associated to Ki67

The identification of simultaneous over-expression of p16 and Ki67 is possible by the technique of immunocytochemistry.

The detection of cervical epithelial cells within cervical cytology preparations that show double immuno-reactivity for both p16 and Ki-67 after the simultaneous immuno-staining for both proteins using may be used as an approach to identify underlying cervical dysplasia.

To accurately detect women at high risk for a better management of these patients

**Materials & Methods**
Retrospective study over 1 year of Conventional Pap smear classified according to Bethesda System. And selection of lesions (ASC-US and LSIL), then discoloring Pap smear and research the simultaneous over-expression of p16 and Ki67 by immunocytochemistry

**Result**
Over 1 year: 3000 Pap smear
Mean Age: 46 years
Negative for Intraepithelial Lesion or malignancy 75.2%
Epithelial Cell Abnormalities: 6.4% among these lesions 2.2% are ASC-US and 3.4% are LSIL, The Immunocytochemistry was interested 11% of ASC-US and LSIL among which 10% are positive

**Conclusion**
The simultaneous detection of the p16 and Ki-67 proteins by immunocytochemistry on smear is considered a marker of the presence of a high-grade CIN, which makes it possible to reduce the number of patients requiring colposcopy and a long-term monitoring. This would reduce the cost of care of these diagnoses and patient anxiety