

## ABSTRACT

**INTRODUCTION:** Despite mostly considered a preventable disease, cervical cancer after breast cancer, is the second most common cancer among women around the world and the leading women's cancer in the developing countries. Cervical cancer is a unique kind of cancer in human being because of having a long incubation period and the fact that we know its main cause (HPV) so the cancer can be prevented. In order to identify high risk patients, have a suitable and rapid action and also to reduce some medical expenses the present study was conducted based on two objectives: 1) Developing a risk factors assessment tool for the cytological changes towards cervical cancer in pap test, 2) To compare the risk factors and clinical manifestations in women with and without atypical cytological findings in Pap test and develop the regression model of its determinants in Iran. **METHODS:** According to the aims this study was performed in 2 phases. 1) A methodological study to develop the research tool, 2) A case-control study with a total of 201 subjects choosing by convenience method who were eligible according to the research criteria. The subjects were assigned in two groups: 51 women in case group with, and 150 women in control group without atypical cytological findings in their Pap test. Research environment were clinics of gynecology and oncology affiliated with the Hamadan University of Medical Sciences, Hamadan, Iran. For data analysis we used Mean, Standard Deviation, Chi-Square Test, Odds Ratio and Logistic Regression Models.

**RESULTS:** Result for the first Phase of the research led to create a tool entitled: "A risk factors assessment tool for the cytological changes towards cervical cancer in the Pap test". It is a standardized questionnaire (CVR=94.39, CVI=96.01) with 50 questions which can be used by other researchers in their related projects and also by the midwives and physicians in face with their patients. This is a unique tool and has two subscales including risk factors and clinical manifestations. Results for The second phase of this research are provided in 14 tables. According to the logistic regression in this study the age ( $p>0.05$ , OR= 1.08), age at the menarche ( $p>0.05$ , OR=0.75), number of deliveries ( $p>0.05$ , OR=1.44), BMI ( $p>0.05$ , OR=2.598) and the use of protection (condom) ( $p>0.05$ , OR=0.023) are determinants for 6

cytological findings in Pap test. Having unhealthy cervix (including: Chronic cervicitis, Erosion/Laceration, and Hypertrophied cervix) in case group was significantly higher than that of control group ( $X^2= 47.166$ ,  $df=1$ ,  $P< .001$ ). Most of the subjects in case group had done the current pap test due to a medical prescription while in control group it was performed as a routine check up and Chi-Square test showed that there is a significant difference between two groups related to this variable ( $p< .001$ ). Painful sex, Low abdominal pain, Pelvic pain and Low back pain are the clinical manifestations that in case group were significantly higher than that of control group ( $P<.001$ ).

**CONCLUSION:** We strongly recommend this risk factors assessment tool to be considered and applied in all the clinics that are open to women because of the gynecological problems. It can help the physicians to predict the patients' health situation in order to have a suitable and quick action. To save most lives, both prevention and early detection should be covered totally by public health insurance especially in low income people. Available facilities should be entirely used to enhance women's knowledge and awareness about cervical cancer, risk factors, and also about its main cause: HPV. Women's health care professionals, media, press and any printed matters can have an operational and effective role about it.