

Pap Smears in the Diagnosis of Cervical Cancer: Help or Hinder?

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Objective: To evaluate the effect of pap smears performed during the clinical phase of cervical cancer.

Methods: Cervical cancer cases between 2011 and 2014 were identified from the Ontario Cancer Registry. Pap smear history within 0-2 years prior to the diagnosis date was determined by linking to a cytology database using a patient unique identifier.

Results: 2206 cases of cervical cancer were identified. Cytology results 0-2 years prior to diagnosis are available on 1444 cases. For stage of cancer, I, II, III and IV, the respective cytology results were as follows: **high grade/cancer:** 79%, 72%, 67% and 41%, **low grade:** 9%, 6%, 9% and 5%, **normal cytology:** 10%, 16%, 22% and 47%. The median time in months between the pap test and diagnosis of cervical cancer for Stage I,II,III and IV and cytologic result respectively is: for **high grade** result: 3, 1, 2, and 1 months, for **low grade** result: 5, 4, 4,4 and 7.5 months, and for **normal** result: 8.5, 5, 12 and 10 months.

Conclusion: Pap tests performed in the setting of an existing cervical cancer is not the diagnostic tool of choice. A significant proportion of cytology is reported low grade or normal in the setting of advanced cervical cancer. Diagnosis of cervical cancer appears to have been delayed when results returned as normal or low grade. Physicians must not rely on cervical cytology as a useful tool in the presence of a clinical lesion consistent with carcinoma.