
Human papillomavirus infection in progressive and non-progressive cervical intraepithelial neoplasia

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Bertelsen, B., Kalvenes, M. B. & Hartveit, F. Human papillomavirus infection in progressive and non-progressive cervical intraepithelial neoplasia. *APMIS 104*: 900-906, 1996.

Human papillomavirus (HPV) infection is common in cervical intraepithelial neoplasia (CIN) and is widely held to be responsible for its progression to grade 3. This thesis is examined here. Comparison of the level of HPV changes in 133 lesions that had not progressed to that in those from 197 women with histologically proven CIN 3 failed to reveal significant differences in their level of HPV infection on cytology, histology or *in situ* hybridization. However, in both these groups, some of the cases that did not show HPV positivity on *in situ* hybridization with probes reacting with the common HPV types did show evidence of HPV DNA using a general primer-mediated polymerase chain reaction. This may indicate low-copy number infections or non-productive infections. Such reactions were more frequent in the women with progressive lesions, and it is probable that they may also have been at greater risk of cervical infection in general. The present findings suggest that a further factor, a co-carcinogen, may be involved in progression to CIN 3, HPV being a common forerunner, providing a proliferative environment and thus favoring such an event.

Key words: Cervical intraepithelial neoplasia; human papillomavirus; *in situ* hybridization; polymerase chain reaction.

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