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Original Article

Laser conization of cervical intraepithelial neoplasia grade 3, Free resection margins indicative of lesion-free survival

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BACKGROUND: Various grades of cervical intraepithelial neoplasia may occur following laser conization for grade 3 lesions. The aim of this study was to assess lesion-free survival after laser conization in cases with/without free resection margins, and to test whether detection of human papillomavirus infection and/or p53 expression in the cone lesion were useful predictors of lesion-free survival.

METHODS: In 598 women treated for cervical intraepithelial neoplasia grade 3 the state of the resection margins was recorded and related to the findings on follow-up, up to 15 years post-operatively. Lesion-free survival times were analyzed by the Kaplan-Meier method. The presence/absence of human papillomavirus infection and/or p53 expression in the primary lesion was investigated in every fifth case by in situ hybridization and immunohistochemistry respectively.

RESULTS: Lesion-free survival was significantly more common after complete than incomplete excision of cervical intraepithelial neoplasia. In the latter, lesions tended to appear shortly after surgery, indicating the presence of residual disease. The few lesions appearing later were evenly divided between those with and those without complete excision. The results of the human papillomavirus and p53 investigations added no further information.

CONCLUSIONS: The presence of cervical intraepithelial neoplasia in the cone margin gives strong indication of potential treatment failure. In its absence laser conization is highly effective in the treatment of cervical intraepithelial neoplasia, and has the advantage of providing a specimen suitable for the necessary histological investigation.