Impact of HPV infection on oral squamous cell carcinoma.

Head and neck squamous cell carcinomas (HNSCC) are often divided by their aetiology. Noxae associated collectives are compared with the human papilloma virus (HPV)-associated group, whereas different localisations of oral (OSCC) and oropharyngeal (OPSCC) squamous cell carcinomas are mostly discussed as one single group. Our aim was to show that classification by aetiology is not appropriate for OSCC. HPV DNA was detected by PCR in 7 (3.47%) patients, and we identified 12 (5.94%) positive (+) cases by p16INK4a immunostaining. Only 4 (1.98%) of the p16INK4a+ cases were + for HPV using PCR. Our homogenous collective of OSCC allowed us to compare HPV+ and HPV negative (-) patients without creating bias for tumour localisation, age, gender or tumour stage. After testing OSCC samples for HPV positivity, we compared the results of two commonly used HPV detection methods, p16INK4a immunostaining and HPV DNA-related PCR, on 202 OSCC patients. HPV subtypes were determined with an HPV LCD Array Kit. Clinicopathological features of the patients were analysed, and the disease specific survival rates (DSS) for HPV+ and HPV- patients were obtained. p16INK4a immunostaining is a not a reliable HPV detection method for OSCC. Positive p16INK4a immunostaining did not agree with + results from PCR of HPV DNA. Furthermore, the influence of HPV-related oncogenic transformation...
in OSCC is overestimated. The significance of HPV infection remains clinically unclear, and its influence on survival rates is not relevant to OSCC cases.