

**Zusammenfassung einer wissenschaftlichen Originalpublikation:****Harald zur Hausen et al.**, Deutsches Krebsforschungszentrum Heidelberg, 1983***A papillomavirus DNA from a cervical carcinoma and its prevalence in cancer biopsy samples from different geographic regions***

(...) Human genital cancer *reveals* epidemiological characteristics of infectious events. Two virus groups have been found to play a role: herpes simplex viruses and human papillomaviruses (HPVs). (...), we focused our interest on the *persistence* of papillomavirus DNA within genital tumors.

Two types of genital papillomavirus infections have been regularly demonstrated in genital *papillomas* (...): HPV 6 and HPV 11. There may exist additional types within *benign* genital tumors.

(...) The presence of HPV 16 DNA in more than 60% of cervical cancer biopsy *specimens* from German patients and its absence from most benign papillomas from the same region is a *startling* observation. It reveals a remarkable specificity of HPV 16 infections for *malignant* tissue. This *renders* an *accidental contamination* from *adjacent* papilloma *tissue* rather *unlikely*. (...)

There seems to exist some geographic difference in the incidence of HPV 16 infections in human genital cancer. Only 34.8% of cervical cancer biopsy specimens obtained from Kenya and Brazil contained cross-hybridizing sequences. This may reflect the prevalence of other papillomavirus types in these regions. (...) It is thus apparent that different types of papillomaviruses can be found in genital *squamous cell* carcinomas. (...) At present, the total percentage of positive cervical cancer biopsy samples (German cases) amounts to 72%. We do expect that characterization of further types of HPV will increase the percentage of positive tumors.

The regular presence of HPV DNA in genital cancer biopsy samples does not per se prove an *etiological involvement* of these virus infections, although the *apparent* cancer specificity of HPV 16 *is suggestive of* such a role. Their biological significance as well as the proposed interaction with initiating events certainly requires further investigation.

Glossar:

papillomavirus: Papillom- oder Warzenviren *cervical carcinoma*: Zervixkarzinom, Gebärmutterhalskrebs

prevalence: Prävalenz (= Häufigkeit einer Erkrankung / eines Merkmals zu einem bestimmten Zeitpunkt)

biopsy: Gewebeprobe

persistence: hier: Vorkommen; sonst: Ausdauer

papilloma: Warze

benign: gutartig

specimen: Probe

startling: überraschend

malignant: bösartig

accidental: zufällig, unbeabsichtigt

contamination: Verunreinigung

adjacent: benachbart

tissue: Gewebe

squamous cell: Plattenepithelzelle (= plattenartig geformte Zellen oberflächlicher Abschlussgewebe)

etiological: ursächlich

involvement: Beteiligung

apparent: offensichtlich

to be suggestive of sth.: auf etw. hindeuten

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