JOURNAL OF CLINICAL MICROBIOLOGY, Nov. 1997, p. 3010 Vol. 35, No. 11
0095-1137/97/$04.00+0

Absence of Human Herpesvirus 8 DNA in Benign and Malignant Endothelial Lesions

By PCR in situ hybridization studies, it was suggested that the presence of human herpesvirus 8 (HHV-8) DNA sequence in endothelial cells and spindle cells was associated with Kaposi's sarcoma (KS) lesions (1). However, a possible involvement of HHV-8 in other vascular tumors, such as angiosarcoma (5), hemangioma, and angiolymphoid hyperplasia and eosinophilia of the skin (4), suggested that HHV-8 may be a ubiquitous agent with a tropism for endothelial cells. Thus, in order to elucidate if angioproliferative lesions other than KS can carry HHV-8 DNA sequences, we examined a series of vascular neoplasms.

Sections, each 10 μm thick, from paraffin-embedded skin biopsy samples of 35 hemangiomas, 17 angiosarcomas, and 4 angiolymphoid hyperplasias and eosinophilias, taken from immunocompetent patients, were treated for DNA extraction and assayed by a two-step PCR using primers from the KS 330 *Bam* region of the genome of HHV-8 as previously described (6).

All samples were tested for the presence of β-globin gene product; two of the hemangiomas tested negative for β-globin and were excluded from the study. None of the samples subjected to the two-step PCR gave positive results for HHV-8 DNA.

Moreover, we also tested specimens from a bioptic lesion on the lower leg of an 80-year-old male. Initially, diagnosis proved difficult, because the histological differentiation between angiosarcoma and classical KS is occasionally difficult to make. The samples tested were positive for HHV-8 DNA sequences. Therefore, they were subjected to further histological investigations and finally classified as KS.

Our data are in agreement with those reported by others (2, 3) and suggest that neither benign hemangiomas nor malignant angiosarcomas contain HHV-8 sequences. In addition, viral DNA was not detected in specimens from angiolymphoid hyperplasia, an uncommon benign disorder, a condition in which other investigators have reported the presence of HHV-8 in 100% of cases (4).

Our results seem to limit the detection of HHV-8 to only KS specimens and do not support the hypothesis that this novel herpesvirus plays a role as a pathogenic factor or as a "passenger" in other endothelial cell-derived lesions.

In any event, PCR methods together with exhaustive histological analysis (3) may be useful for distinguishing KS from non-KS lesions in immunocompetent patients.

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