Do human tumor-associated viruses play a role in the development of synovial sarcoma?

To date, the pathomechanism of soft tissue sarcomas such as synovial sarcoma remains unclear whereas even a viral etiology was suspected. Aim of this study was to analyze whether EBV, HHV-8 or HPV play a role in the development of synovial sarcomas. In total 41 synovial sarcomas were included in this retrospective study. For detection of EBV 1/2 and HHV-8, resection specimens were analyzed with regard to virus-specific sequences using a SingleStep PCR. HPV analysis was carried out by an HPV-specific multiplex-PCR and subsequent array-hybridization for HPV-typing. No virus-specific DNA of EBV, HHV-8 or HPV was detected. An involvement of these viruses in the etiology of synovial sarcoma was not detected but further studies are needed with different virus types and sarcoma entities.