

Merkel cell polyomavirus in non-small cell lung carcinomas from Chile

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Lung cancer is a leading pathology strongly associated with the smoking habit. However, a viral etiology for a subset of patients developing lung cancer has been suggested. Polyomaviruses (PyVs) are small double stranded DNA viruses associated with the development of some human diseases. However, a causal role of these viruses in human cancer has been difficult to demonstrate. In this study, eighty-six non-small cell lung carcinomas (NSCLCs), including adenocarcinomas (AdCs) and squamous cell lung carcinomas (SQC)s from Chile were analyzed for the presence of PyVs using polymerase chain reaction (PCR). All of the specimens were positive for a fragment of the betaglobin gene. We found that 4/86 (4.7%) of lung carcinomas were positive for PyVs. After sequencing and BlastN alignment, all four cases were identified as Merkel cell polyomaviruses (MCV) that corresponded to two AdCs and two SQCs. A non-significant statistical association was found between the presence of MCV and clinic-pathol