

Supplementary Material

BK Virus Encephalopathy and Sclerosing Vasculopathy in a Patient with Hypohidrotic Ectodermal Dysplasia and Immunodeficiency

Acta Neuropathologica

Armine Darbinyan¹, Eugene O. Major², Susan Morgello^{1,3,4}, Steven Holland⁵, Caroline Ryschkewitsch², Maria Chiara Monaco², Thomas P. Naidich⁶, Joshua Bederson⁷, Joanna Malaczynska¹, Fei Ye¹, Ronald Gordon¹, Charlotte Cunningham-Rundles⁸, Mary Fowkes¹, Nadejda M. Tsankova^{1,4†}

¹Department of Pathology, Icahn School of Medicine at Mount Sinai, New York, NY 10029

²Laboratory of Molecular Medicine and Neuroscience, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, Maryland 20892

³Department of Neurology, Icahn School of Medicine at Mount Sinai, New York, NY 10029

⁴Department of Neuroscience and Friedman Brain Institute, Icahn School of Medicine at Mount Sinai, New York, NY 10029

⁵Laboratory of Clinical Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD 20892

⁶Department of Radiology, Icahn School of Medicine at Mount Sinai, New York, NY 10029

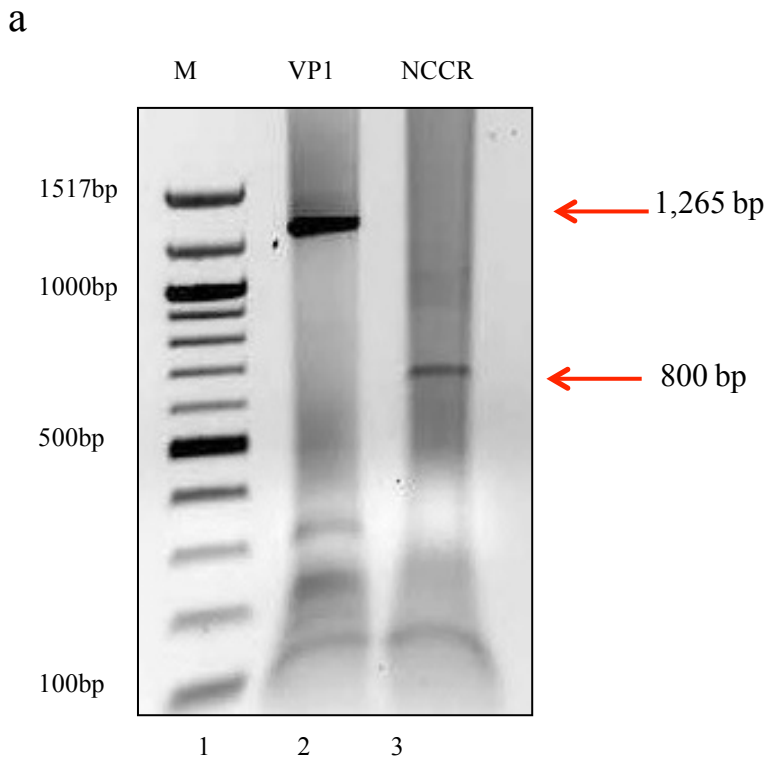
⁷Department of Neurosurgery, Icahn School of Medicine at Mount Sinai, New York, NY 10029

⁸Department of Medicine - Allergy & Immunology, Icahn School of Medicine at Mount Sinai, New York, NY 10029

† Corresponding Author

nadejda.tsankova@mssm.edu

Supplemental Figure S1 (Relates to Fig 4)



VP1 = 1,265 bp (Primers F: 1456-1475, R: 2725-2744)

NCCR = 800 bp (Primers F: 4881-4902, R: 567-588)

M - marker

Numerical positions of nucleotides in primers based on Dunlop strain, V01108

b

Sequencing results

1. VP1 region of BKV (2583-2154 nt)

5' –
 AGGTCGTAGATAAAAAGCAGCATTATTAAGTCATGT
 TTATTATACAATAAAAAGCACCTTGTTTAAACCATTTT
 TGTTTGCAATTGTCCCTGTCTGTCAATATATCTTATC
 ATATCTGGGTCCCCTGGAAGCTGTTCTGTGCCATCAA
 ACACCCTGACCTCCTCCATCTGATACTCCTGACCATA
 CATAGGGTCCCATCCACTCTCTGGTTCTCCTGTTT
 ATAAGTCACTAAGCAAAAAGGAAATTGGGTAAGG
 GTTCTTTACTTGATTTTTTCTCAGGCGAATCTTAAAA
 TATCTTGGAAGGCCCTCCACTGTTGTGTTCCAGAGC
 TGTTAGTAAACAGTCCACAAATATCAGCAGCTGAAA
 CATA CAGGCTATCACTTTACACAGAGGCCCCACCC
 TGTTCA TCCAGCAACTGTGGTAGCTGTGTTGGTTA
 C -3'

2. Initial portion of early coding region and NCCR (red) of BKV

5' –
 TGGCACCTTTATACCTGCTCATTTTTTTATATAAAGT
 ATTCATTCTCTTTTATCCTCGTCGCCCTTTGTC
 AGGGTGAAATTCCTTACACTTTCTTAAATAGGCTTT
 CCTCATTAAGGGAAGGTTTCCCCAGGCAGCTCTTC
 AAGGCCTAAAAGGTCCATGAGCTCCATGGATTCCCTC
 CCTGTTTAGCACTTTATCCATTTTTGCAAAAAATTGC
 AAAAGAATAGGGATTTCCCAAATAGTTTTGCTAGG
 CCTCAGAAAAAGCCTCCACACCCTTACTACTTGAGA
 GAAAGGGTGGAGGCAGAGGCGGCCCTCGGCCTCTTA
 TATATTATAAAAAAAAAAGGCCACAGGGAGGAGCTG
 CTTTCCCATGGAATGCAGCCAAAGAGGAGCTGCTTT
 CCCATGGAATGCAAATTTCTCAAATAAACAAAAAT
 AAAAAAAAAAGGCCACAGGAAGGAGCTGCTTTCCCA
 TGGAATGCACCCAAAGAGGAGCTGCTTTCCCATGG
 AATGCAGCCCAACTATGCCCCCGGCATGACTGGGC
 ACCAAGCCCTGGCTGTTAATATTGAATCCCCGCC
 CGCAAATTAACAATAACCCCAATACGAAGTGAAA
 GTTGCCCTTGCCCCACTTAGTATC – 3'

Fig S1 Targeted sequencing strategy for BKV VP1 and NCCR regions

a. Products of nested PCR encompassing 1265bp of BKV VP1 and 800 bp of NCCR with initial portion of early coding region are purified from an 1% agarose gel and submitted to Sanger sequencing. **b.** Sanger sequencing results of VP1 and NCCR purified gel products