

**Table S1.** Overview of the main characteristics and outcomes in children with HCSS detections.

ID	HCSS CZ ID detection	Age-range	Comorbidity	Symptoms	PICU admission	CSF WCC (/mm <sup>3</sup> )	CSF protein (g/L)	MRI findings	Other relevant information	Persistent symptoms at day 14
2	Enterovirus A	2-4 y	Autism	Vomits, lethargy, abdominal distension	Yes	5	15	-	Suspected abdominal occlusion	No
12	Enterovirus D	3m-1y	No	Altered consciousness, myoclonus	No	0	16	Normal	Enterovirus detection by PCR in stool	No
15	Enterovirus C	2-4y	Oncologic malignancy	Fever, altered consciousness, seizures	Yes	0	13	Normal	-	No
34	Human alphaherpesvirus 1	3m-1y	Oncologic malignancy	Fever, altered consciousness, seizures	Yes	0	16	Normal	Received acyclovir for 48 hours	No
22	Human alphaherpesvirus 3 (VZV)	5-9y	No	Fever, altered consciousness, seizures	No	50	17	Normal	Received acyclovir for 48 hours	No
20	Human betaherpesvirus 5 (CMV)	2-4y	No	Fever, altered consciousness, tremor, seizures, gastrointestinal	No	5	12	Normal	Received acyclovir for 48 hours	No
43	Human betaherpesvirus 5 (CMV)	10-14y	No	Fever, paresis, gastrointestinal	No	28	74	Bilateral punctate subcortical lesions in T2/FLAIR	-	Yes
26	Human betaherpesvirus 7 Polyomavirus 5	2-4y	No	Fever, altered consciousness, paresis	No	62	22	Neuritis in high spinal nerve roots and cervical myelitis	-	Yes
30	Human betaherpesvirus 7	5-9y	No	Dysautonomic crisis, paresis, seizures	Yes	1	40	Diffuse cortico-subcortical T2/FLAIR hyperintensities	-	Yes
6	Human gammaherpesvirus 4 (EBV) Polyomavirus 1	3m-1y	No	Fever, altered consciousness, paresis	No	27	23	Diffuse cortico-subcortical T2/FLAIR hyperintensities	Received acyclovir for 48 hours	Yes
32	Influenza A	3m-1y	Preterm	Fever, altered consciousness, seizures	Yes	68	300	-	No respiratory symptoms	No
8	Parechovirus A	5-9y	Autism	Altered consciousness, seizures	Yes	0	18	Normal	-	Yes

17	Parechovirus A	2-4y	No	Altered consciousness, ataxia, seizures, gastrointestinal	No	0	14	-	Adenovirus detection in stools	No
23	Parechovirus A	3m-1y	No	Fever, meningism	No	130	68	-	-	No
27	Parechovirus A	5-9y	Chromosomal disorder	Altered consciousness, ataxia, seizures, gastrointestinal	No	36	45	Normal	-	No
31	Parechovirus A	10-14y	Autism	Fever, altered consciousness, seizures	Yes	6	26	Focal cortico-subcortical T2/FLAIR hyperintensity	-	Yes
33	Parechovirus A Human betaherpesvirus 7	3m-1y	No	Fever, altered consciousness, sepsis-like	Yes	0	11	-	Suspected bacterial superinfection with C-reactive protein and procalcitonin elevation	No
24	Polyomavirus 1	5-9y	No	Fever, meningism, ataxia, vomits	No	150	40	Diffuse cortico-subcortical T2/FLAIR hyperintensities	-	Yes
7	Polyomavirus 5	10-14y	Admission due to an episode of altered consciousness at infancy	Fever, meningism, seizures, vomiting	No	19	50	Focal cortico-subcortical T2/FLAIR hyperintensity	-	No
14	Polyomavirus 5	3m-1y	Epileptic encephalopathy	Fever, altered consciousness, seizures	Yes	0	16	Normal	-	Yes
29	Polyomavirus 5	3m-1y	Congenital heart defect	Fever, altered consciousness, seizures	Yes	0	20	-	-	Yes
19	Rhinovirus	5-9y	No	Altered consciousness, impaired vision	No	19	31	Diffuse cortico-subcortical T2/FLAIR hyperintensities and optical neuritis	Anti-MOG +	Yes

Co-detections: \*polyomavirus 1 and other human herpesvirus, \*\* other human herpesvirus with parechovirus A, † polyomavirus 5 and other human herpesvirus  
CSF: cerebrospinal fluid; m: month; PCR: Polymerase chain reaction; WCC: white-cell count; y: year