

Supplemental Table S1. Detailed clinical findings of Serbian patients with genetically confirmed SPG4.

| Patient | Family | Gender | Age at onset | Age | Mobility | LL | UL | Sphincter dysfunction | Sensibility impairment | Additional features | NCS | SSEP | Brain MRI | Spine MRI |
|---------|--------|--------|--------------|-----|-----------------------|--|---------------|-----------------------|---------------------------|------------------------------|----------|-------------------------|-----------------------|-----------|
| HSP4 | 1 | male | 21-40 | 44 | abnormal, but no aids | hyperreflexia, weakness | normal | bowel and bladder | vibration in LL | none | normal | normal | normal | normal |
| HSP9 | 2 | male | 6-10 | 39 | abnormal, but no aids | hyperreflexia, weakness | hyperreflexia | normal | normal | foot deformities, dysarthria | normal | normal | normal | normal |
| HSP10 | 2 | male | 6-10 | 37 | abnormal, but no aids | hyperreflexia, weakness | hyperreflexia | normal | normal | dysarthria | normal | abnormal from LL and UL | single WMHL | normal |
| HSP11 | 3 | female | 21-40 | 60 | abnormal, but no aids | hyperreflexia, weakness, distal muscle atrophy | hyperreflexia | bladder | vibration and touch in LL | none | normal | normal | normal | normal |
| HSP12 | 3 | male | 11-20 | 38 | abnormal, but no aids | hyperreflexia | normal | normal | normal | epilepsy | not done | normal | hippocampal sclerosis | not done |
| HSP24 | 4 | female | 21-40 | 40 | abnormal, but no aids | hyperreflexia | hyperreflexia | normal | normal | none | not done | normal | normal | normal |
| HSP32 | 5 | female | 21-40 | 34 | abnormal, but no aids | hyperreflexia, weakness | hyperreflexia | normal | vibration in LL | none | normal | not done | pineal gland cyst | normal |
| HSP33 | 6 | female | 41-60 | 48 | abnormal, but no aids | hyperreflexia, weakness | hyperreflexia | bladder | vibration in LL | none | not done | not done | not done | normal |
| HSP42 | 7 | female | 41-60 | 47 | abnormal, but no aids | hyperreflexia, weakness | hyperreflexia | bowel and bladder | vibration in LL | none | normal | not done | small WMHLs | normal |
| HSP52 | 8 | male | 6-10 | 42 | abnormal, but no aids | hyperreflexia, weakness, distal muscle atrophy | hyperreflexia | normal | normal | none | normal | normal | normal | normal |
| HSP68 | 9 | male | 21-40 | 42 | abnormal, but no aids | normal | hyperreflexia | normal | normal | none | not done | not done | small WMHLs | normal |

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|---------------|-----------|--------|-------|----|-----------------------|------------------------------------|-------------------------------------|-------------------|-----------------|--|----------|----------|--|--------|
| HSP80 | 10 | female | 21-40 | 43 | abnormal, but no aids | hyperreflexia, weakness | hyperreflexia, mild distal weakness | bladder and bowel | vibration in LL | mild cerebellar ataxia | normal | not done | small WMHLs | normal |
| HSP81 | 10 | male | <1 | 33 | abnormal, but no aids | hyperreflexia, weakness | hyperreflexia | bladder and bowel | vibration in LL | deafness, foot deformities | normal | not done | retrocerebellar cyst | normal |
| HSP94 | 4 | male | 21-40 | 24 | normal | hyperreflexia | hyperreflexia | normal | normal | none | not done | not done | normal | normal |
| HSP112 | 11 | female | 41-60 | 44 | abnormal, but no aids | asymmetric hyperreflexia, weakness | normal | normal | normal | mild dysarthria, mild cerebellar signs | normal | not done | WMHLs in cerebellum, mild cerebellar atrophy | normal |
| HSP114 | 12 | female | >60 | 72 | abnormal, but no aids | hyperreflexia | hyperreflexia | bladder | normal | foot deformities, mild cerebellar ataxia | normal | not done | normal | normal |

LL – lower limbs, UL – upper limbs, NCS – nerve conduction studies, SSEP – somatosensory evoked potentials, MRI – muscle resonance imaging, WMHL – white matter hyperintensity lesions