**Supplementary data:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sequence type** | **TR/ TI/ TE** | **FOV** | **Matrix** | **Slice thickness** | **ETL** | **Nex** |
| T1 SPACE | 900/15 | 200 | 320X320 | 0.63 | 52 | 1 |
| SWI | 27/20 | 240 | 256X192 | 2.4 | 1 | 1 |
| DWI | 7000/84 | 240 | 128X128 | 3 | 51 | 1 |
| FLAIR | 5000/1600/394 | 240 | 256X256 | 0.94 | 254 | 2 |
| T2 SPACE | 3200/407 | 240 | 256X256 | 0.94 | 254 | 2 |

**Supplementary table 1:** Imaging parameters used for various sequences of the current study. TR: Time to repeat; TI: Time to inversion; TE: Time to echo; FOV: Field of view; ETL: echo train length; Nex: number of excitations.

|  |  |  |
| --- | --- | --- |
| **Imaging finding** | **Present on VWI study (n=13)** | **Present on index study (n=13)** |
| NEWM lesions | 10 | 9 |
| Granulomas | 2 | 3 |
| HPA involvement | 1 | 2 |
| Hydrocephalus | 1 | 1 |
| Ependymal enhancement | 4 | 5 |
| Cranial nerve enhancement | 4 | 8 |
| Meningitis | 5 | 10 |
| Dural involvement | 2 | 5 |
| Perivascular enhancement | 5 | 2 |

**Supplementary table 2:** Distribution of various associated imaging findings at the time of vessel wall imaging study and on the index study. NEWM: Non-enhancing white matter lesions.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | **Non-necrotizing granulomas** | **Granulomas in the leptomeninges** | **Granulomas in the parenchyma** | **Perivascular granulomas** | **Vessel wall involvement** |
| **P01** | X | X |   | X | X |
| **P03** | X |   |   | X | X |
| **P04** | X | X |   | X | X |
| **P05** | X |   | X | X | X |
| **P06** | X |   | X | X | X |
| **P10** | Focus of lymphoplasmacytic inflammation with scattered histiocytes; no definite granulomas |

**Supplementary table 3:** Histopathological findings in patients with NS who underwent brain biopsy. Patient P10 subsequently had a transbronchial biopsy which showed non-necrotizing epithelioid granulomas consistent with sarcoidosis.