Postmortem Brain Specimens from the Pathology Perspective

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Conflicts of Interest

No conflicts of interest reported.
SEM/EDS analysis of dentate nucleus (paraffin embedded tissue from NSF patient)

Infrequent Gd deposits in cerebellar cortex

Numerous Gd deposits in dentate nucleus

Red dots show pattern and density of Gd deposits across a representative section of cerebellum.

Low magnification SEM picture of dentate nucleus.
These results were confirmed in a subsequent analysis. Graphical representation of the data is consistent with other NSF cases that we have analyzed. The ternary diagram (left) shows 2 populations, with the scatterplot (right) showing deposits containing much lower Gd % in the cerebellar cortex (left portion of grid) compared to dentate nucleus (right portion of grid).
Dentate nucleus, mineralized deposits on wall of small vessels, from NSF case (left) and from control brain with no Gd contrast agent exposure (right).

Dentate nucleus, CD68 stain (macrophage/microglia), non-NSF cases from sample with abundant Gd deposits (left) and with no detectable Gd (right).