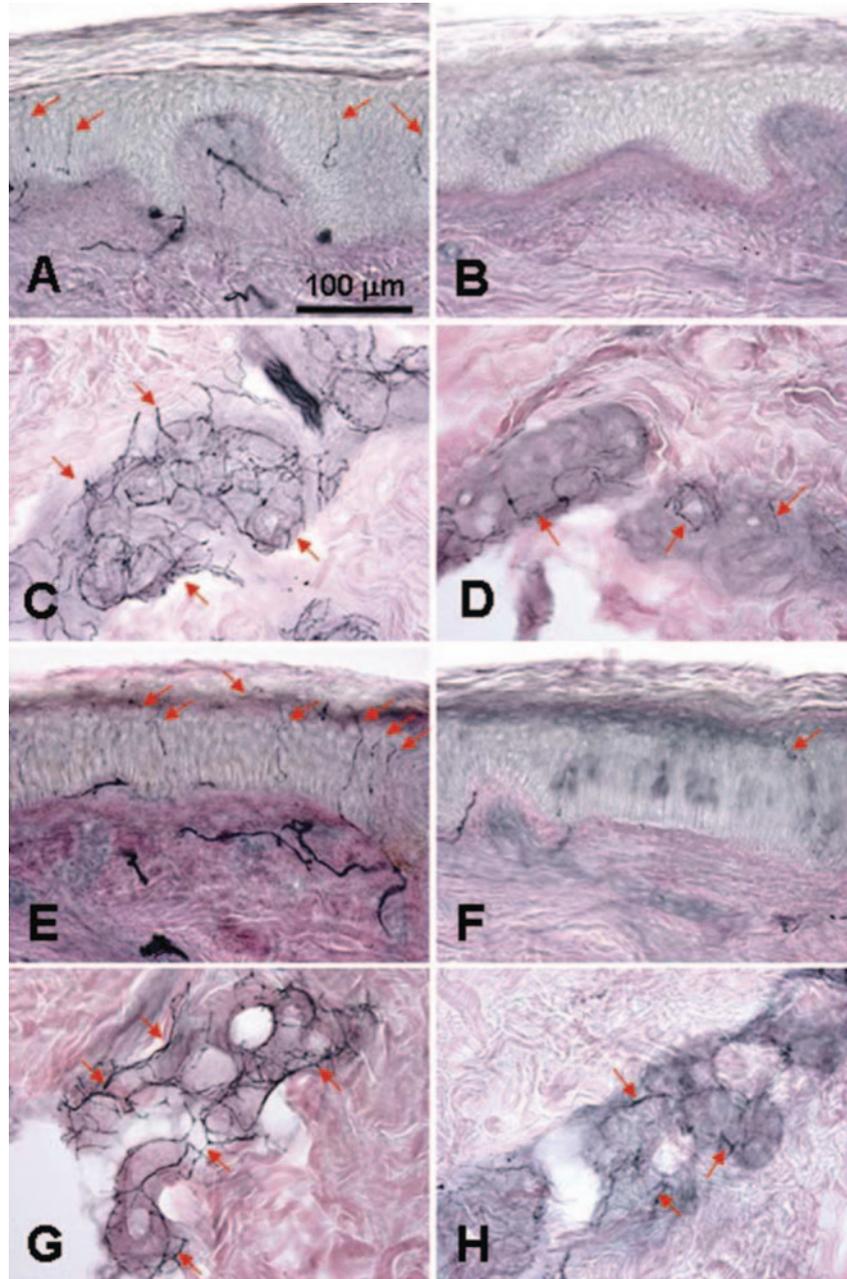


Small fiber degeneration in post-stroke complex regional pain syndrome I

Figure Skin biopsy with PGP9.5 immunostaining



Intraepidermal C-fibers were present (arrows) at normal densities (≥ 5 fibers/mm) at the right foot (A, 7.2 fibers/mm) and DL (E, 11.1 fibers/mm), but were absent at the left foot (B) and reduced at the DL (F, 2.1 fibers/mm). Sudomotor autonomic C-fibers (arrows) were markedly reduced at the left foot (D) and DL (H) as compared to the right (C, G).

A 37-year-old man had a massive right middle cerebral artery infarct causing left hemiparesis. He developed chronic poststroke complex regional pain syndrome type I (CRPS I) of the left foot and distal leg (DL) with pain, allodynia, edema, skin hyperemia, and hair loss. Vascular studies and an EMG were normal. Skin biopsy with PGP9.5 immunostaining showed complete loss of intraepidermal somatic C-fibers at the left foot (figure, B) and reduced density at the DL (figure, F). Sudomotor autonomic C-fibers were also mark-

edly reduced at the left foot (figure, D) and DL (figure, H) compared to the right. CRPS I could be associated with degeneration of peripheral somatic¹ and autonomic small fibers.

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