A 42-year-old woman presented with acute-onset facial numbness. Physical examination revealed graded loss of pain and temperature over the left half of her face with central sparing (figure 1A)—an onion-skin distribution. Corneal reflex was sluggish on the left, but results for the rest of the clinical examination, CSF studies, and visual evoked potential were normal. MRI was suggestive of acute demyelination (figure 1B)—a hyperintense lesion in the brainstem and spinal cord extending from the lower medulla to C2 level. Axial T2 MRI at the level of the upper cervical cord shows a hyperintense lesion in the left posterior-lateral cervical cord (figure 1C). This segmental pattern of trigeminal sensory loss, in contrast to the divisional pattern (figure 2, A and B), reflects the rostral-caudal somatotopic arrangement in the spinal tract nucleus of the trigeminal nerve with the perioral area represented rostrally and the lateral face caudally and helps in anatomic localization.

REFERENCES
Figure 2  Divisional pattern of sensory loss (A), segmental pattern of sensory loss (B), and schematic diagram of the trigeminal system in the brainstem (C)

A

V1

V2

V3

B

C

Midbrain

Mesencephalic nucleus CN V

Principal sensory nucleus CN V

Pons

Trigeminal (gasserian) ganglia

Spinal nucleus of CN V pars oralis

Spinal nucleus of CN V pars interpolaris

Spinal nucleus of CN V pars caudalis

Medulla

Spinal cord

CN = cranial nerve. (A, B) Reprinted from Blumenfeld,\textsuperscript{1} with permission. (C) Reprinted from Brazis et al.,\textsuperscript{2} with permission.
Teaching NeuroImages: Onion-skin pattern facial sensory loss
Abhijit Das, Pranav D. Shinde, Chandrasekharan Kesavadas, et al.
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