Teaching Neuro*Image*

Unilateral acroparesthesias

An unusual presentation of an acute stroke

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A 51-year-old right-handed man with hypertension but on no medications presented the day after the acute onset of numbness in the fingertips of his left hand. The acroparesthesias were limited to the distal aspects of the left third and fourth fingers. Neurologic examination revealed decreased sensation to light touch and pinprick in the left third and fourth distal phalanges. Two-point discrimination was impaired, and stereognosis and graphesthesia were not tested. The remainder of the examination was otherwise normal. Head CT was normal at presentation. The next day, diffusion-weighted MRI of the brain showed a restricted high signal area in the right somatosensory cortex. His symptoms resolved over the course of 3 days. EKG, carotid ultrasonography, Holter monitoring, and transesophageal echocardiography were normal. He was discharged on aspirin and metoprolol.

Reports of pure sensory strokes by a cortical lesion are rare.[1,2] Oftentimes, vague complaints of dysesthesias and paresthesias involving the fingertips and hands are attributed to compressive neuropathies such as carpal tunnel syndrome, cervical radiculopathy, a distal peripheral neuropathy, or hyperventilation syndromes. Contralateral sensory deficit involving the face, arm, and leg are attributed predominantly to thalamic lesions. When one or two parts of the contralateral side are involved, the localization of the lesion by clinical examination is more questionable. In this patient, the pure sensory stroke was due to a small infarction in the cortical territory of the middle cerebral artery caused, presumably, by an embolic source. Although no etiology for our patient's stroke was found on further evaluation, carotid embolic sources should be pursued, especially in the setting of recurrent paresthesias (figure).

References

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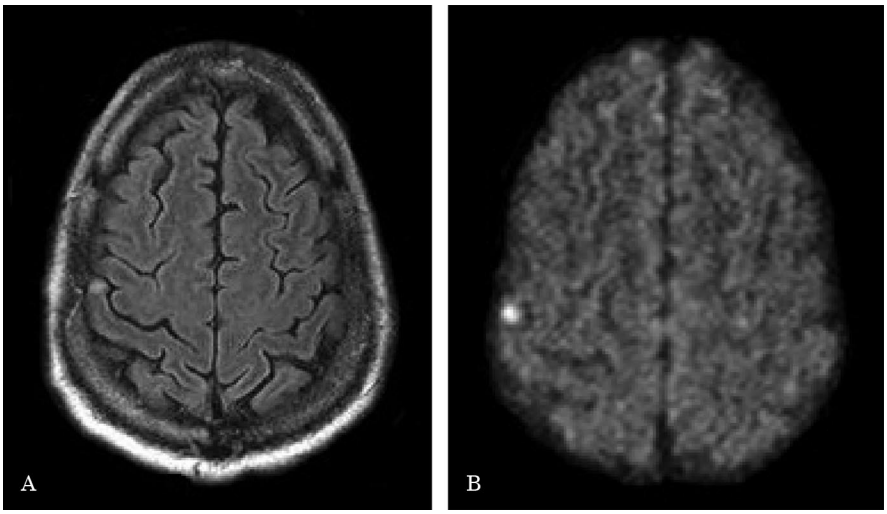

Figure. (A) Small focal area of increased signal in the right sensory cortex on axial T2-weighted MR image. (B) Diffusion-weighted imaging showing increased intensity in corresponding region consistent with acute infarction.

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