



Pure Sensory Stroke due to Putamen Bleed: A Case Report

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Introduction

Pure Sensory Stroke (PSS) is a well-defined clinical entity in which hemisensory symptoms predominate without other major neurological signs [1]. Pure sensory stroke without involving other features is uncommon [2]. Most commonly it is caused by a lacunar syndrome, either infarction or hemorrhage. The literature rarely describes putaminal haemorrhage producing pure spinothalamic sensory deficit [3]. We report case of a young non hypertensive male presenting with pure sensory stroke due to hemorrhage in the putamen of left side.

Case report

A 27 year old male, stationed at high altitude, non smoker, presented with complaints of decreased sensation over rt hand, arm, face and leg of 10h duration, in that he felt the limbs to be numb and unable to feel the pain. There was no h/o difficulty in speech, visual abnormalities, weakness of limbs, facial asymmetry, headache, vomiting, seizures. It was of acute onset and static in course. There was no past h/o TIA, hypertension. Clinical examination revealed normal vital parameters, there was decreased touch and pinprick sense in the right half of his body that was more in right lower limb. Position and Proprio-



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ception, stereognosis, 2- point discrimination and graphaesthesia were normal. The deep tendon reflexes were normal, and plantar reflexes were flexor bilaterally. His haematological and biochemical parameters were normal. Brain MRI scans showed a hematoma of 20 mm X 23 mm X 30 mm in the left putaminal region. He was managed with Mannitol 20% in a dose of 0.5 g/kg IV infusion 8 hrly. Patient's sensory symptoms improved by 60% over a period of after 2 weeks and had a complete recovery at the end of two months.

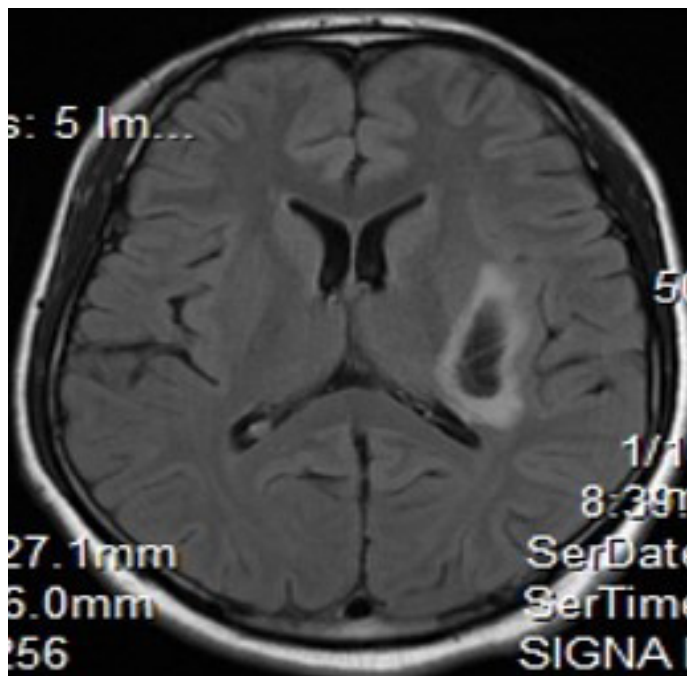


Figure 1: Axial T2 FLAIR MRI image showing Left putaminal acute haematoma with surrounding oedema impinging upon posterior aspect of posterior limb of left Internal capsule.



Figure 2: 3D TOF MRA showing normal vessels.

Discussion

Pure sensory stroke was first described in the year 1965 with the lesion in thalamus [1]. Pure sensory stroke, the most common lacunar manifestation, takes the form of numbness of the face, arm, and leg on one side in the absence of weakness, homonymous hemianopia, aphasia, agnosia and apraxia [1,2]. Diagnosis of pure sensory stroke rests wholly on clinical findings. Sensory deficits of all modalities in one half of the body usually are associated with a relatively large lacunae or hemorrhage in the area of the posterolateral thalamus. Hiraga et al [3] described putaminal haemorrhage producing pure spinothalamic sensory deficit and Kim [4] described three patients who had a hypertensive putaminal haemorrhage with pure sensory stroke. Groothius et al [5] indicated that to produce this PSS in capsular region, the lesion should occupy the posterior quarter of the posterior limb of the internal capsule. In present case, patient MRI showed a hematoma in the left putamen with surrounding oedema impinging upon the posterior limb of the internal capsule. The sensory impairment may have been caused by the oedema secondary to haemorrhage compressing the spinothalamic sensory tract in the posterior part of the posterior limb of the internal capsule, rather than actual destruction of posterior limb of internal capsule on lt side.

Conclusion

This case illustrates a rare form of pure sensory stroke due to compressive effects of putaminal haemorrhage. This patient highlights the vascular lesion producing PSS syndrome and illustrate that a putaminal hemorrhage should be included in the differential diagnosis.

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