THE ONE-AND-A-HALF SYNDROME AND ASSOCIATED NEUROLOGICAL SYMPTOMS RELATED TO PONTINE HEMORRHAGE—A CASE REPORT

Homg-Jer Wu, Shih-Chun Chao, Hung-Yu Lin

Purpose: To report a case of One and a half syndrome related to sudden hemorrhage of the pontine area.

Methods: A Case Report

Results: A 54-year-old female patient was admitted to our hospital due to a sudden onset of conscious disturbance, headache, and dizziness, and shortness of breath. The Neurosurgery Department consulted us for her complaints of blurring vision, and ptosis of the right eyelid after her condition was stable. Complete ocular exam demonstrated that conjugate horizontal gaze palsy to the right direction, impaired adduction of the right eye and the only remaining horizontal eye movement was the abduction of the left eye (one and a half syndrome). Vertical ocular movement was normal. Neurology exam also showed signs of the right facial weakness, flattening of nasolabial fold and absence of the right forehead wrinkling. CT scan revealed that hemorrhage over the pontine area with intraventricular extension.

Conclusion: Causes of One and a half syndrome include pontine area hemorrhage, ischemia, tumor, infected mass lesion such as tuberculoma and demyelinating condition like multiple sclerosis. One and a half syndrome is not an isolated syndrome but usually accompanied with cranial nerve palsies, hemiplegia, or hemihypoesthesia. The outcome maybe depends on the level of lesion involved.

Key words: one and a half syndrome; paramedian pontine reticular formation; medial longitudinal fasciculus; pontine hemorrhage

INTRODUCTION

One and a half syndrome is commonly caused by a vascular accident occurring in the lower pons involving the paramedian pontine reticular formation (PPRF) and the medial longitudinal fascicle (MLF). It shares the feature of conjugate horizontal gaze palsy (CHGP) in one direction and internuclear ophthalmoplegia (INO) in the other. Here we report a case of One and a half syndrome due to the hemorrhage in the pontine area with other associated neurological symptoms.