Hypertrophic Olivary Degeneration with an Egg-shaped Appearance

Takayuki Kosaka¹, Chiaki Asao² and Satoru Tawara¹

Key words: hypertrophic olivary degeneration, MRI, Guillain-Mollaret triangle

(A Intern Med 53: 2751-2752, 2014)
(DOI: 10.2169/internalmedicine.53.3679)

A 53-year-old man presented with diplopia and a gait disturbance. Brain MRI revealed a lesion (Picture A) with heterogeneous intensity on T2-weighted images (T2WI) and low intensity in part on T2* images, consistent with the features of a cavernous angioma involving the central tegmental tract (CTT). Eight months later, follow-up MRI disclosed another lesion (Picture B-D) with no contrast enhancement in the inferior olive (IO). Coronal and sagittal MRI views demonstrated an egg-shaped contour that corresponded to the whole shape of the IO. Hypertrophic olivary degenera-

¹Department of Neurology, National Hospital Organization Kumamoto Medical Center, Japan and ²Department of Radiology, National Hospital Organization Kumamoto Medical Center, Japan
Received for publication July 15, 2014; Accepted for publication August 5, 2014
Correspondence to Dr. Takayuki Kosaka, hellokusaka@yahoo.co.jp
Hypertrophic olivary degeneration (HOD) is a rare condition, characterized by enlargement of the IO with hyperintensity on T2WI. HOD is caused by interruption of the dentato-rubro-olivary pathway, i.e., the so-called Guillain-Mollaret triangle, involving the CTT (1). It is therefore important to be aware of this condition so as not to misinterpret any new lesions as being due to other diseases, such as tumor formation, multiple sclerosis, infarction, inflammatory diseases or systemic neurodegenerative disorders (2). The detection of an egg-shaped contour on T2WI is useful for making the differential diagnosis of IO lesions.

The authors state that they have no Conflict of Interest (COI).

References