## Dysphagia due to Cavernous hemangioma on Medulla oblongata : A c ase report

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## Introduction

A cavernous hemangioma is a type of vascular malformation, a mass of capillaries in a single cell layer. It can occur anywhere in the central nervous system, but it commonly occurs in the cerebrum, of which the main symptoms are seizures and headaches. It gradually increase over the years, and can occur repeated microbleedings. Additionally, neurologic symptoms associated with the lesion site may occur due to mass effect or edema. Because of the character of the very slowly gradual growth, patients adjust to the condition, and remain asymptomatic for many years. Unlike other arteriovenous malformations and aneurysms, cavernous hemangiomas are unlikely to rupture, so rarely fatal. It is diagnosed through T2 Magnetic resonance imaging(MRI) by the margin around the lesion and uneven signal intensity within the lesion. If the seizure is repeated due to cerebral lesions, surgical treatment or gamma knife is commonly reccommended. But it is not easily performed due to unclear prognosis and concerns about side effects from the surgery itself.

## Case report

An 80-year-old man suddenly experienced severe nausea and vomiting, dysphagia. He has no history of gastrointestinal or neurologic disease. On the day he visited the emergency department, he was sent to home because there were no special findings in abdomen X-ray and Computed tomography(CT). His symptoms persisted until the next day, so he was admitted to gastroenterology department and did not respond well to symptomatic treatment. However, He has also hoarseness, so neck CT was performed through ENT consultation and a mass about 1cm was observed in the medulla oblongata(Fig.1A). Finally, a subsequent brain MRI(Fig.1B, C) was performed, a cavernous hemangioma with edema was diagnosed. As a result of the NS consultation, it did not occur acutely, and the patient was adapted to the gradually growing hemangioma, but swelling caused sudden dysphagia and vomitting. Steroid administration was started for 2 weeks to relieve swelling, and Total parenteral nutrition(TPN) administration was started due to the failure of Levin tuve(L-tube) insertion. At a week after steroid administration, L-tube insertion was successed. At 2 weeks after steroid administration, all diet was possible, with scanty amount aspiration, Penetration-Aspiration Score(PAS) 7 in Video Fluoroscopic Swallowing Study(VFSS). With swallowing therapy, dysphagia was gradually improved, and the patient was discharged after 6 weeks of onset. In the VFSS performed in the outpatient clinic at the 3 months of onset, all diets were smoothly swallowed.



Fig.1 Cavernous hemangioma on Lt.medulla. A:Neck CT, B:Brain MRI T2 Flair, C:Brain MRI T2 tse

## Discussion

In sudden severe vomitting, many doctors consider gastrointestinal diseases, and if there are no specific findings in abdominal X-rays or CT, they just perform only fluid treatment and NPO. However, as can be seen in this case, cavernous hemangioma in Medulla can cause severe dysphagia and vomiting as a result of swelling, and it is necessary to identify additional related symptoms without only paying attention to the main symptoms, and brain stem MRI should be performed as soon as possible.