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Dolichoectasia of vertebral artery presenting as Tenth cranial nerve palsy

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Abstract: Intracranial arterial dolichoectasia is characterized by enlargement, tortuosity or elongation of major arteries at the base of the brain. It usually involves distal vertebral arteries, basilar artery or distal internal carotid artery. Here we present a case of vertebrobasilar dolichoectasia presenting as tenth cranial nerve palsy.
Keywords: dolichoectasia, tenth, nerve palsy.

INTRODUCTION

Vertebrobasilar dolichoectasia(VBD) is a rare entity characterized by tortuosity, enlargement and dilatation of the vertebrobasilar arteries[1]. Here we report a rare case of tenth cranial nerve palsy secondary to congenital vascular abnormality, dolichoectasia of vertebral artery.

CASE REPORT

A 66 year old lady with past history of systemic hypertension, coronary artery heart disease, dyslipidemia presented with insidious onset, progressive hoarseness of voice, dysphagia and headache for 2 months. Neurological examination revealed decreased sensation of touch in the throat, palatal movements, and absent gag reflex on the left side. Fundal examination was normal. Indirect laryngoscopy showed left vocal cord palsy. Computer Tomography of Chest revealed bronchiectatic changes in middle lobe and lingular segment. Computer Tomography of Brain with contrast showed dolichoectasia of right vertebral artery crossing to opposite side and compressing on 10th cranial nerve on left side (Figure 1).

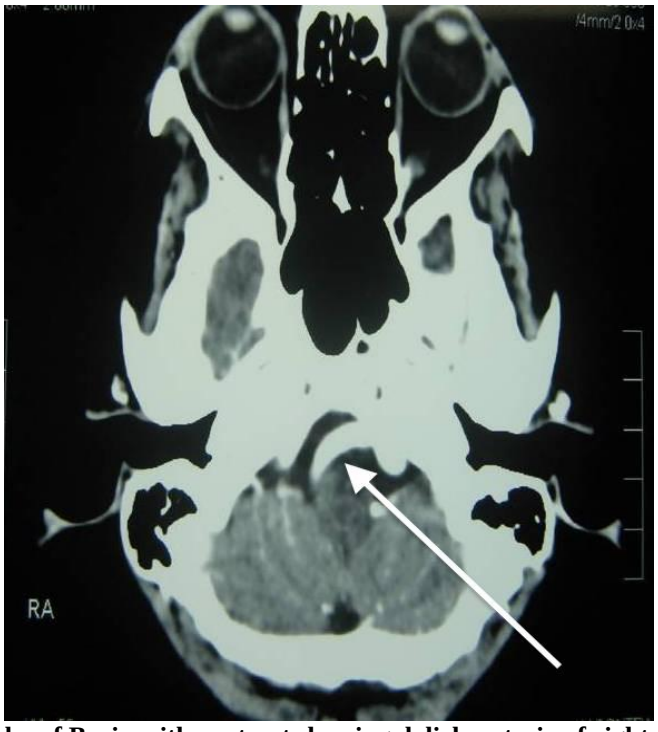

Fig 1: Computer Tomography of Brain with contrast showing dolichoectasia of right vertebral artery crossing to opposite side and compressing on 10th cranial nerve on left side

DISCUSSION

VBD is characterized by a high degree of variability in clinical outcome. It is usually asymptomatic and less than 10% of the patients have neurologic symptoms. It manifests as compression of cranial nerves, brainstem, ischemic stroke or transient ischemic attacks. Atherosclerosis in association with hypertension may be the contributing pathogenic factor in vertebrobasilar dolichoectasia in addition to congenial vascular anomaly. VBD may be an independent risk factor for stroke [2].

The prevalence of intracranial dolichoectasia is approximately from 0.06% to 5.8% [3]. When VA is dolichoectatic, it deviates from its course ventral to the brainstem and may compress the cranial nerves, most frequently as they emerge from the brain stem.

The treatment of this condition is difficult. Antiplatelet therapy may be considered for the prevention of recurrent ischemic stroke in patients with current or previous ischemic stroke. Close monitoring and aggressive surgical interventions like decompressive surgery might be needed for high-risk patients [4]. However, due to their potential complications, such surgical treatments are risky. Lower cranial nerve involvement in our case is a manifestation of VBDE, with compression of the left tenth cranial nerves during the extra-axial course. Considering the age and unwillingness of patient for surgery, she was given reassurance and aspirin prophylaxis.

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