

DUPLICATION OF INTERNAL JUGULAR VEIN: A RARE VENOUS ANOMALY

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INTRODUCTION

Internal jugular vein (IJV) is the largest vein of the neck draining intracranial structures and deep structures of the face and neck [1]. It starts as direct continuation of sigmoid sinus, runs down the neck in relation to the carotid arteries and drains into the subclavian veins (SCV) at root of neck [2]. Vagus and glossopharyngeal nerves pass in relation to IJV and carotids during their course in neck [3].

Duplication and fenestration, although rare, are most commonly seen IJV anomalies. IJV bifurcates and drains separately into SCV in duplication ("Inverted Y" appearance) and reunites to form a single channel before draining into SCV in case of fenestration [1]. CTA is an excellent method to delineate the vascular anatomy of neck. IJV is an important landmark in neck surgeries, thus for a radiologist, it is important to know the variations of venous anatomy for proper diagnosis and guiding the surgeons to avoid unnecessary vascular injury.

CASE REPORT

A 2-years-old male presented with severe headache and diagnosed as subarachnoid haemorrhage on plain CT head. CT angiography (CTA) was done on 256slice CT scanner. The arterial phase images showed right MCA bifurcation aneurysm. The venous phase showed variation in the right internal jugular vein anatomy which bifurcated into two channels in lower part of neck (Fig. 1 & 2). They run parallel for a short distance and drain separately into right subclavian vein. Duplicated right IJV was suggested as variation.

Fig.1a & b: VRT and Inverted images of neck venogram show intracranial venous sinuses with internal jugular veins (I) as continuation of sigmoid sinuses (SS). Right IJV bifurcates (arrow) in lower neck giving an 'inverted Y' shaped appearance and draining finally into right subclavian vein (S) which is continuing as right brachiocephalic vein (B).

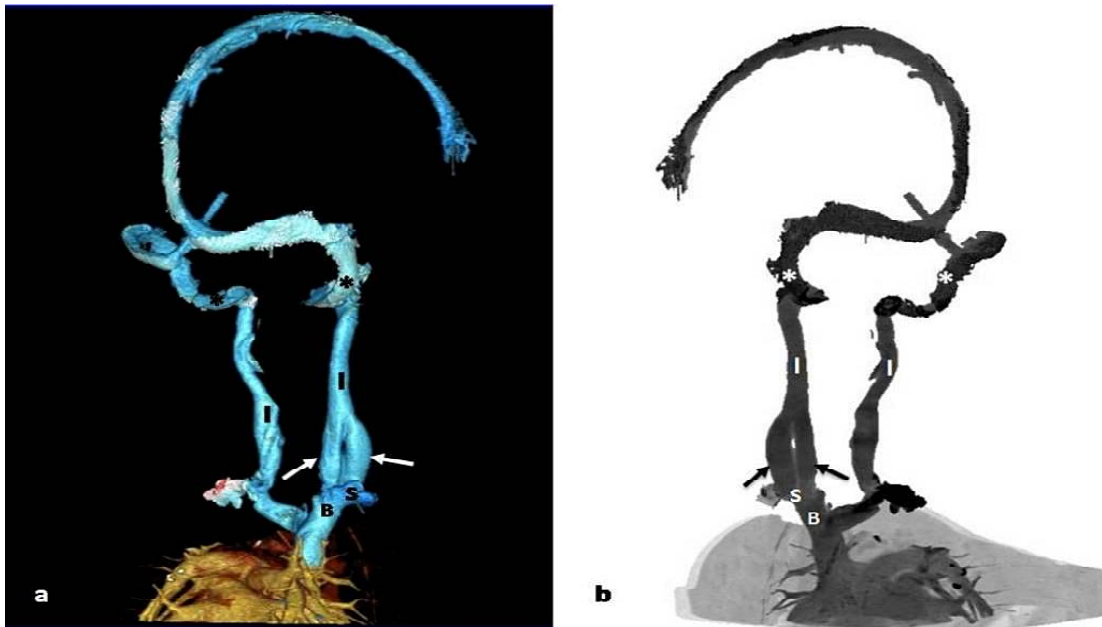
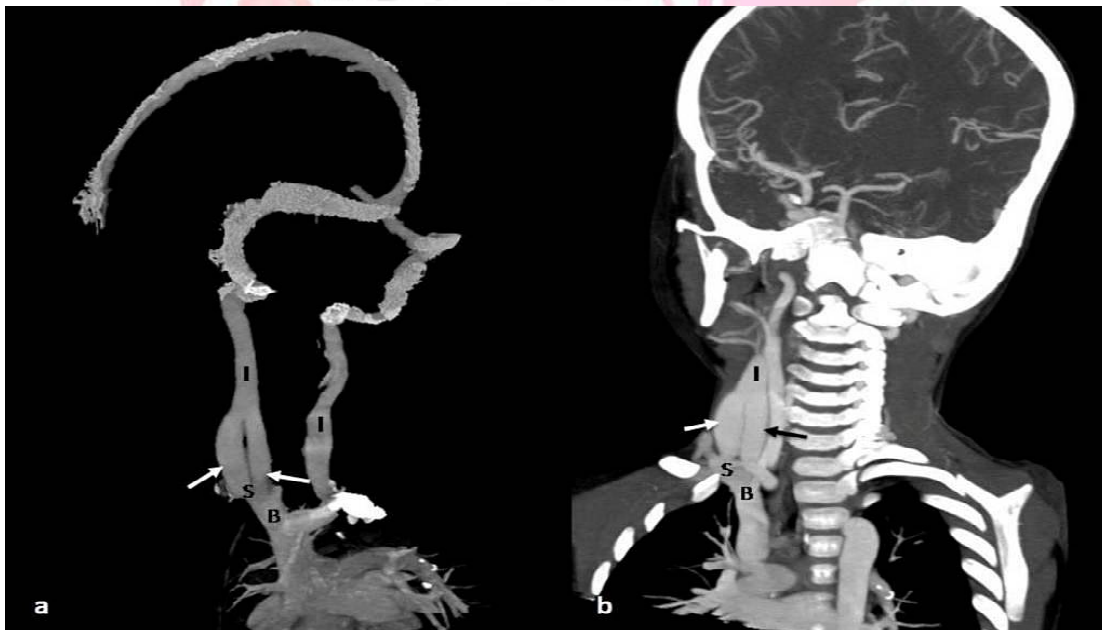


Fig. 2a & b: Thick and thin MIP images showing bifurcation (arrow) of right IJV (I) in lower neck with both half draining separately into draining right subclavian vein (S) and finally continuing as right brachiocephalic vein (B).



Conflicts of Interests: None

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