



## An Interesting Case of Diffuse ICA Collapse in the Neck - The “Champagne Bottleneck” Sign

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### Abstract

We herein report a 26-year young female who experienced sudden onset loss of consciousness and unilateral limb weakness (side not recalled) on her postpartum Day 1, of her first pregnancy 2 years back, followed by gradual recovery of her motor weakness, but with residual deficits in speech, comprehension, cognition and memory. Her neuroimaging now shows old large bilateral middle and posterior cerebral artery territorial infarcts. Angiogram revealed non-visualisation of bilateral internal carotid and extensive “smoke-like” collateral Moya-Moya circulation in brain. However, interesting additional findings were bilateral extracranial (cervical portion) narrowing of proximal internal carotids up to carotid bulb, the so called “Champagne bottle neck” sign.

**Keywords:** Postpartum; Bilateral Large Infarcts; Moya-Moya; Extracranial ICA Narrowing; Carotid Collapse; Champagne Bottle Neck Sign

### Case Report

Patient is a 26-year female, married, without history of any chronic illness, and presented with complaints of altered behaviour, not understanding vocal commands, unable to recognize family members and unable to perform daily routine activities without help for the last 2 yrs. Patient was apparently well before 2 years, when she was admitted at some local hospital at full term pregnancy and planned for LSCS. There was no history of prior miscarriages or foetal loss. After she was received in ward post procedure, she didn't regain her consciousness for the next 3 days, after which investigations were performed to look into the matter. A CT Brain performed at that time showed bilateral Parieto-temporo-occipital hypo intensity, which later in MRI Brain revealed restricted diffusion in this region. This was interpreted as bilateral MCA Territory Infarcts, with other possibilities of Posterior Reversible Encephalopathy syndromes and remotely Encephalitis according to the medical record documents. Patient was managed conservatively with nasogastric feeding, bladder catheterisation, antiplatelets and

iv fluids. CT angiography brain, as per documents, revealed “puff of smoke” appearance of vessels due to extensive collaterals. With deterioration in general condition post operatively, patient was taken home by family members. Over time, she gradually recovered and was able to speak, move about, and walk independently over next 6 months, however there were residual abnormalities in speech in form of slurred unclear speech, not understanding vocal commands, behaviour in form of erratic acts of shouting, physical violence, emotional incontinence in form of inappropriate laughing, along with non-recognition of family members. Besides, she used to walk with dragging of bilateral lower limbs. Occasional bladder and bowel incontinence was seen. However, no associated history of fever, seizures, residual limb weakness, facial weakness, or swallowing difficulty were present.

Presently, patient was brought with non-improving static nature of these complaints. History was suggestive of post stroke residual deficit due to involvement of bilateral temporo-occipito-



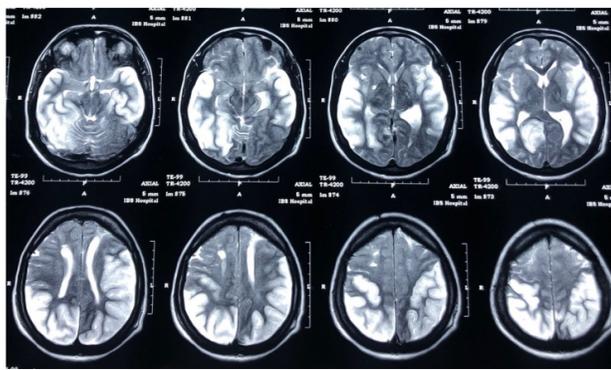


Figure 3

Literature [3-5] was reviewed for such lesion, and we concluded that this was the “Champagne bottle neck” sign seen with advanced Moya-Moya disease, wherein following a distal ICA steno-occlusive lesion, the proximal extracranial ICA collapses except for the carotid bulb. Thus, diagnosis of “primary Moya-Moya disease with bilateral large parieto-occipital-temporal infarctions associated with bilateral long segment ICA collapse” was made.

### Conclusion

Traditionally, focal narrowing of extracranial carotids is considered atherosclerotic, while diffuse and uniform ones are considered vasculitic in origin. However, we hereby emphasise that a collapse of extracranial ICA till carotid bulb can be a rare manifestation of distal ICA stenosis like that in Moya-Moya disease, leading to peculiar appearance of a champagne bottleneck, and hence diagnostically helpful.

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