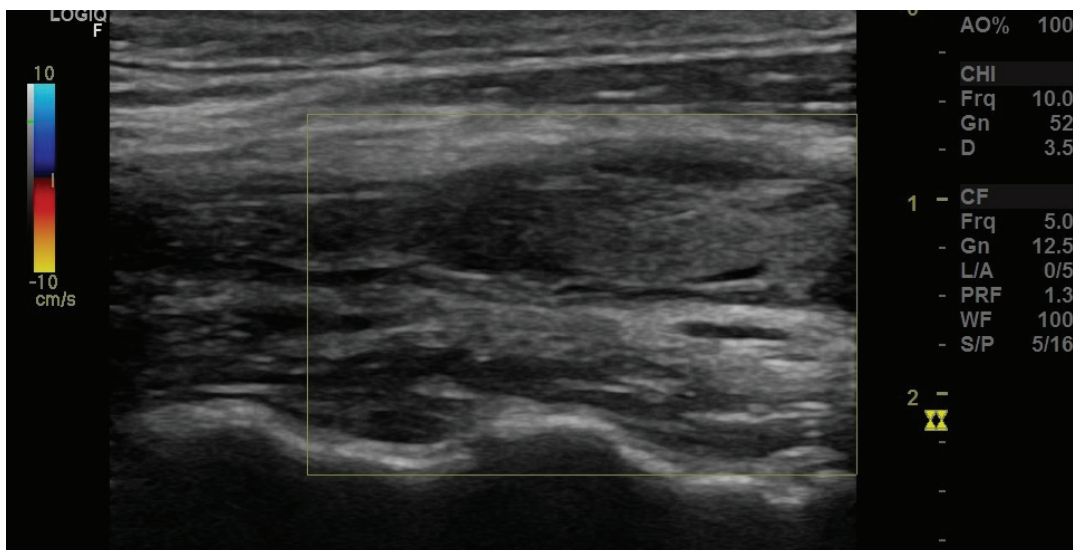
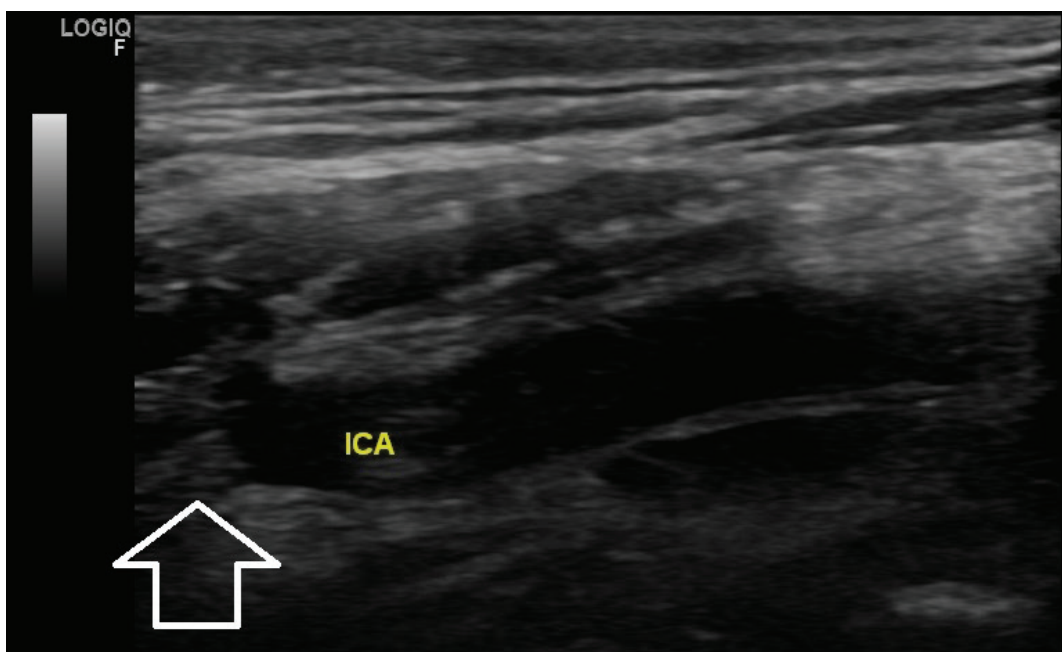


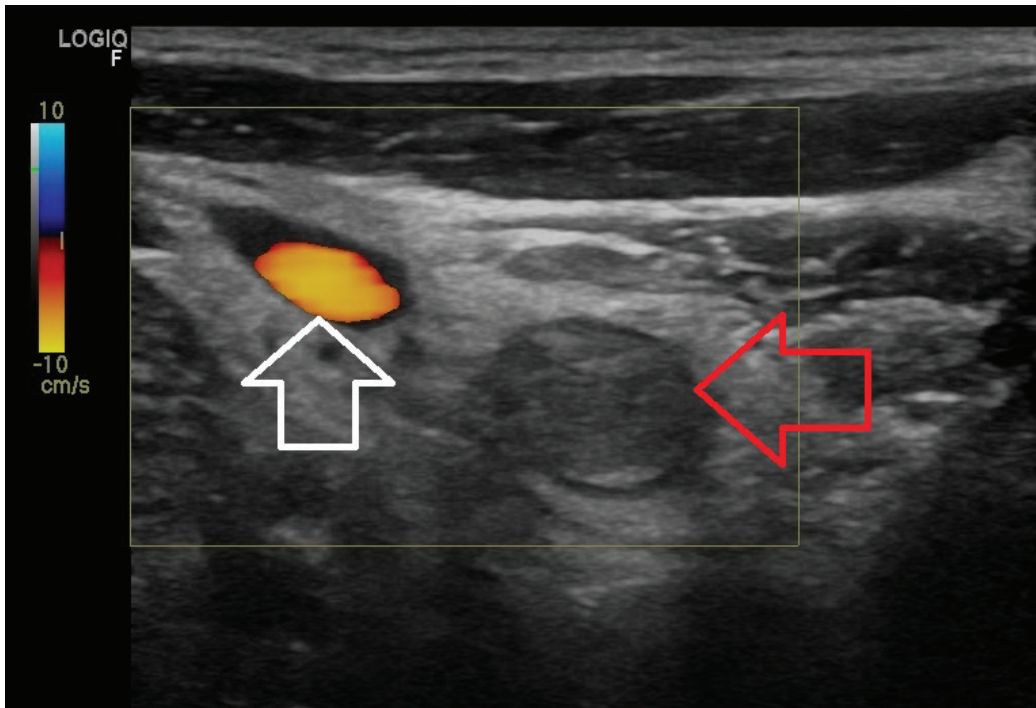
**Figure 1.** Grayscale B-mode sonographic images. (a) Right CCA in long axis is completely occluded with slightly echogenic thrombus (white thick arrow) with normal intima-media complex (red inverted arrow). The thrombus is not firmly adherent to the vessel wall. (b) Right CCA in the axial section with complete occlusion.



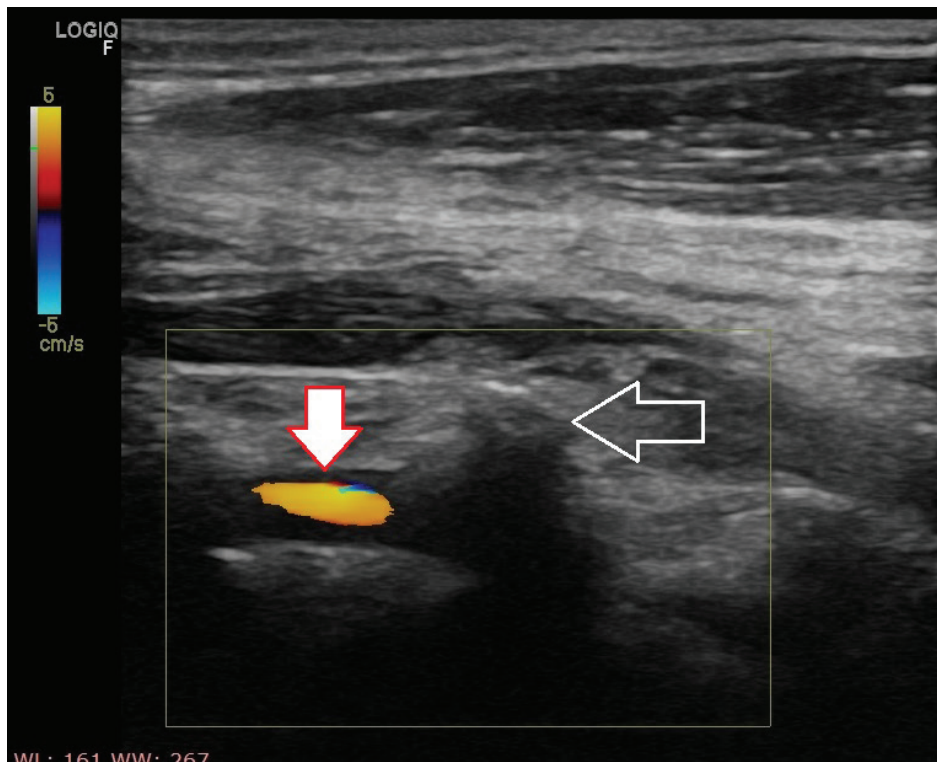
**Figure 2.** A CFD of Right CCA. There is no flow in the vessel even in low settings. No calcification is seen in the vessel.



**Figure 3.** Right ICA beyond carotid bulb and bifurcation. The thrombus is seen extending in the right ICA with complete occlusion (white hollow arrow).



**Figure 4.** Color flow images of the right CCA and jugular vein. Right CCA shows complete occlusion (red hollow horizontal arrow) without any flow but jugular vein shows normal color flow (white vertical hollow arrow).



**Figure 5.** Right VA shows prominent flow (inverted white red lined arrow) without any thrombus. The adjacent rib shadowing is seen in front of the vessel (white horizontal hollow arrow).

common as compared to the left side and bilateral cases are rare. The formation of the thrombus may be retrograde in case of atherosclerosis and ante-grade in other thrombotic process and Takayasu's disease [4]. There are two types of occlusions which are as follows:

Type I: Both CCA and ICA are occluded and the ischemic events are due to hemodynamical background.

Type II: CCA is occluded but ICA remains patent because of the supply of extracranial collateral flow.

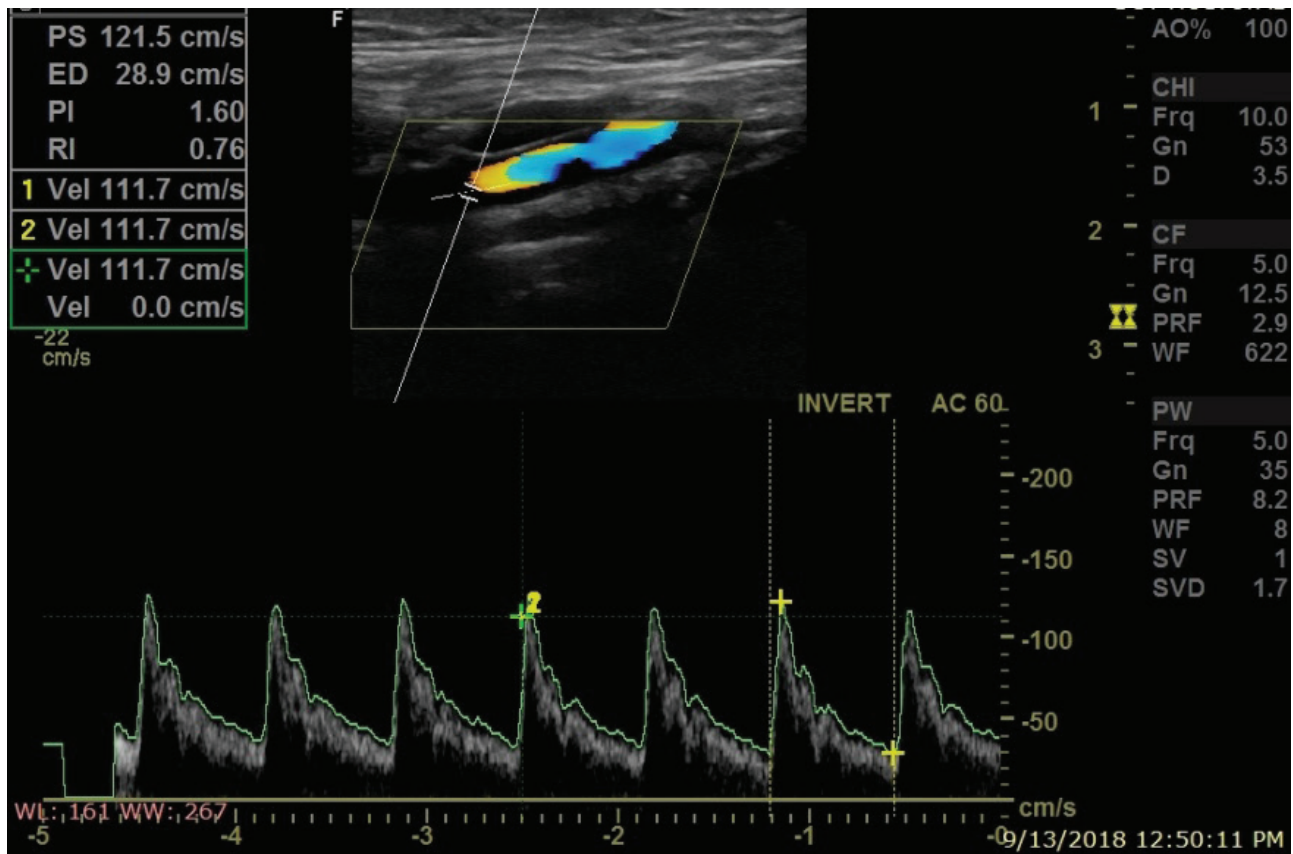


Figure 6. The contralateral CCA is seen with normal flow and normal spectral analysis.

The diameter of both the sides may vary but there is no evidence of any hypoplasia of the vessels leading to the occlusion. The perfusion of the brain on the occluded side is managed by collateral circulation.

### Conclusion

Carotid sonography and color flow imaging (CFI) are the gold standard imaging tools for the evaluation of the occlusion of the vessel. This is nonexpensive and easily available and that too without any radiation hazards.

### Acknowledgment

We are thankful to Dr. Vinod Benda, postgraduate resident of radiology and Mr. Nitish of Faculty of Allied Health Sciences, SGT University, for carrying out the magnetic resonance imaging and providing the appropriate images.

### List of Abbreviations

CCA	Common carotid artery
CCAO	Common carotid artery occlusion
CFI	Color flow imaging
CTVS	Cardio thoracic vascular surgery
ICA	Internal carotid artery
IMC	Intimal media complex
VA	Vertebral artery

### Consent for publication

A written consent of the patient was taken.

### Ethical approval

Not required.

### Author details

Sonali Singh<sup>1</sup>, Bharat Bhushan Sharma<sup>2</sup>, Neeru Kapur<sup>2</sup>, Shantnu Singh Chauhan<sup>2</sup>, Mir Rizwan Aziz<sup>2</sup>, Dileep Kumar Jha<sup>2</sup>

1. Department of Ophthalmology, SGT Medical College, Gurgaon, India
2. Department of Radiodiagnosis, SGT Medical College, Gurgaon, India

### References

1. Monica AN, Germano A, Biscoito L, Baptista M. Common carotid artery occlusion: doppler ultrasound findings in two patients. *J Diagn Med Sonography*. 2005;21(6):502–8. <https://doi.org/10.1177/8756479305281346>
2. Parthenis DG, Kardoulas DG, Ioannou CV, Antoniadis PN, Kafetzakis A, Angelidou KI, et al. Total occlusion of the common carotid artery: a modified classification and its relation to clinical status. *Ultrasound Med Biol*. 2008;34(6):867–73. <https://doi.org/10.1016/j.ultrasmedbio.2007.11.015>
3. Chang YJ, Lin SK, Ryu SJ, Wai YY. Common carotid artery occlusion: evaluation with duplex sonography. *AJNR Am J Neuroradiol*. 1995;16(5):1099–105.
4. Tsai CF, Jeng JS, Lu CJ, Yip PK. Clinical and ultrasonographic manifestations in major causes of common carotid artery occlusion. *J Neuroimaging*. 2005;15(1):50–6. <https://doi.org/10.1111/j.1552-6569.2005.tb00285.x>

**Summary of the case**

<b>Patient (gender, age)</b>	1	Male 39-years
<b>Final diagnosis</b>	2	Complete thrombotic occlusion of the right common carotid artery
<b>Symptoms</b>	3	Loss of vision in the right eye
<b>Medications</b>	4	Planned for CTVS Intervention
<b>Clinical procedure</b>	5	Thrombectomy
<b>Specialty</b>	6	Intervention by CTVS Surgeon