

Case 16: Bilateral Carotid-Cavernous Fistula

32 YEAR OLD MALE

- Presented With History Of Road Traffic Accident 4 Months Back, He Had Right Fronto-parieto-temporal (FTP) Subdural Haemorrhage
- He Underwent Right Ftp Decompressive Craniotomy Followed By Cranioplasty
- Now He Presented With Proptosis & Redness Of Both Eyes With Double Vision Since Last 15 Days



Bilateral Proptosis

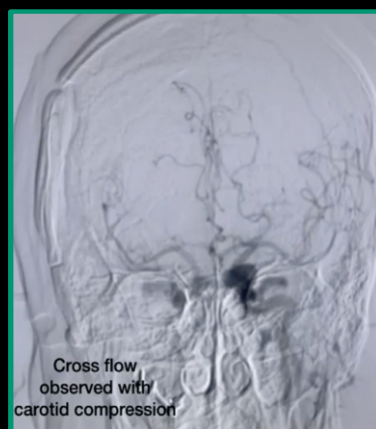
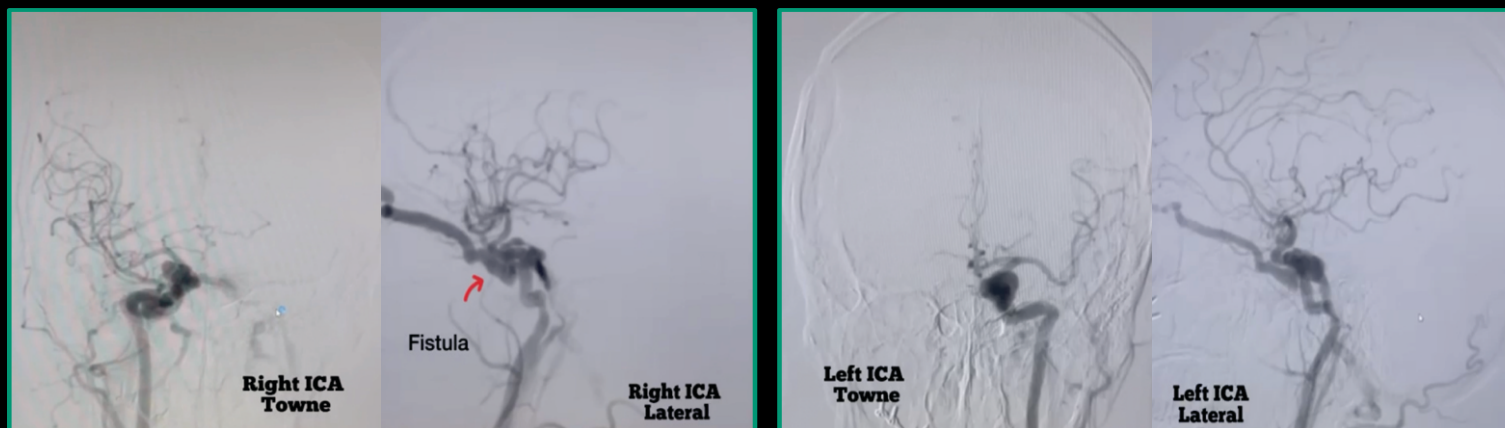
- He Underwent Dsa Which Showed Bilateral Direct (Type A) Carotid Cavernous Fistula
- There Was Good Cross Flow From Left to right Through Acom on Right Carotid Compression
- Plan Was To Go for Balloon Assisted Coiling First on Left Side Followed By Right Side and/or If Required Right Ica Sacrifice



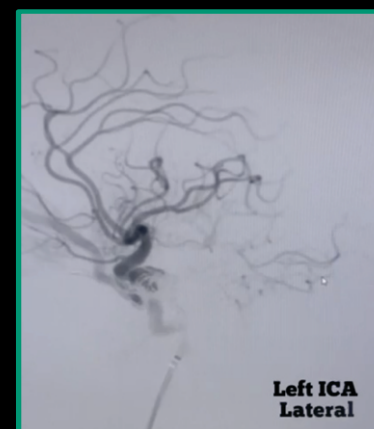
FIRST SITTING

- He Underwent Balloon Assisted Coiling Of Left Side In First Sitting, However Post Procedure There Was Some Residual Ccf With Delayed Flow Into The Fistula.
- Hence Decided For Check Angiogram 2 Weeks Later & Further Plan Accordingly.
- Two Weeks Later Fistula Had Grown Significantly & Again Underwent Complete Embolisation In The Second Sitting.

Left CCA Balloon assisted Coiling First Sitting

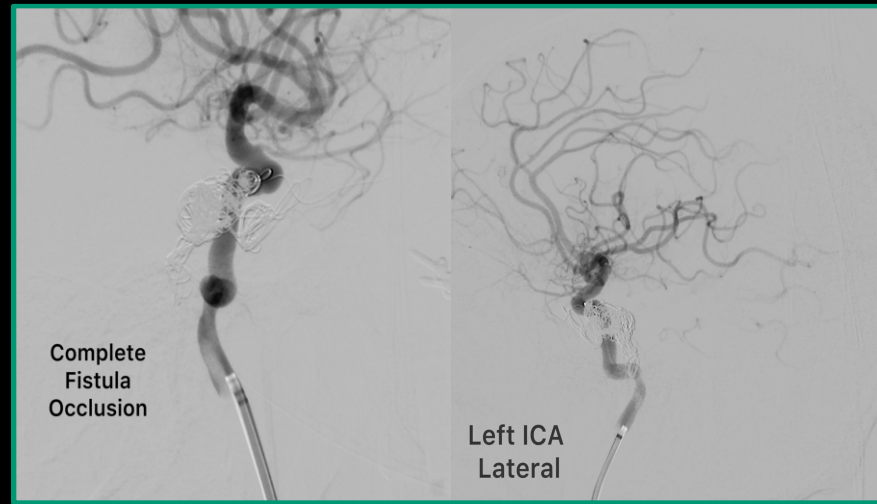
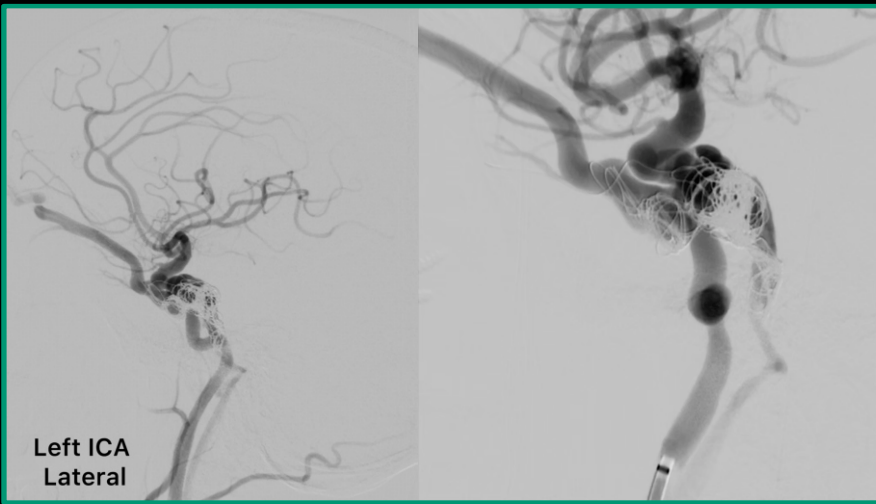


There was cross flow from left to right through AcOM

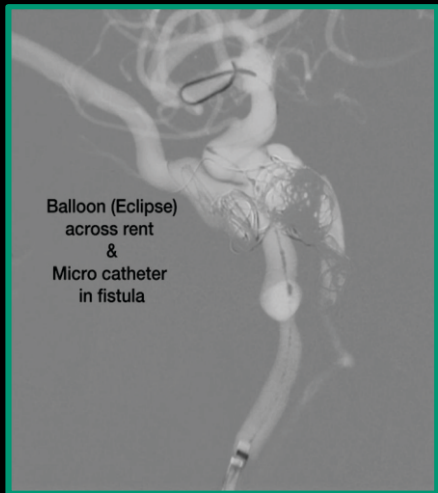




Left CCA Balloon assisted Coiling Second Sitting



Complete occlusion of the CCF after second sitting



- Two weeks later he underwent parent vessel sacrifice (occlusion) on the right.
- There was total occlusion of the bilateral CCF.
- Right ACA, MCA & its branches were filling from the left side through AcOM with very good cross flow.
- He was discharged after 2 days without any neurological deficits.

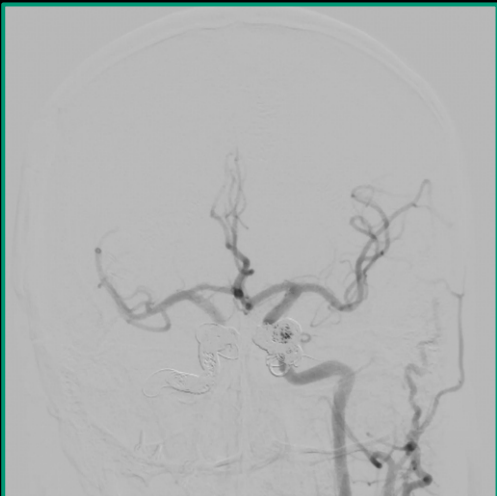


FINAL SITTING

Post Procedure final left ICA run showing total occlusion of bilateral CCF



In & out Coiling of the right CCF & right ICA with Parent Vessel Sacrifice



Before

After

Challenging Angioplasty & Stenting

Only medical management with antiplatelets and statins in patients with high grade stenotic lesions in extra-cranial or intra-cranial cerebral vessels is associated with a high rate of failure, resulting in recurrent transient ischemic attack (TIA), stroke or death. Endovascular therapy that is angioplasty and stenting is being widely used for secondary prevention in such patients. Internal Carotid artery angioplasty and stenting, one of the most common procedure done, is now recommended when patient has symptomatic extra-cranial ICA stenosis of more than 50% or stenosis is more than 70% even if patient is asymptomatic. Intracranial ICA, MCA or vertebro- basilar angioplasty and stenting is usually considered when patient has high grade stenosis (typically >70%) and is symptomatic in spite of best medical management. Here I would like to share few challenging cases where angioplasty and stenting was performed for secondary prevention