

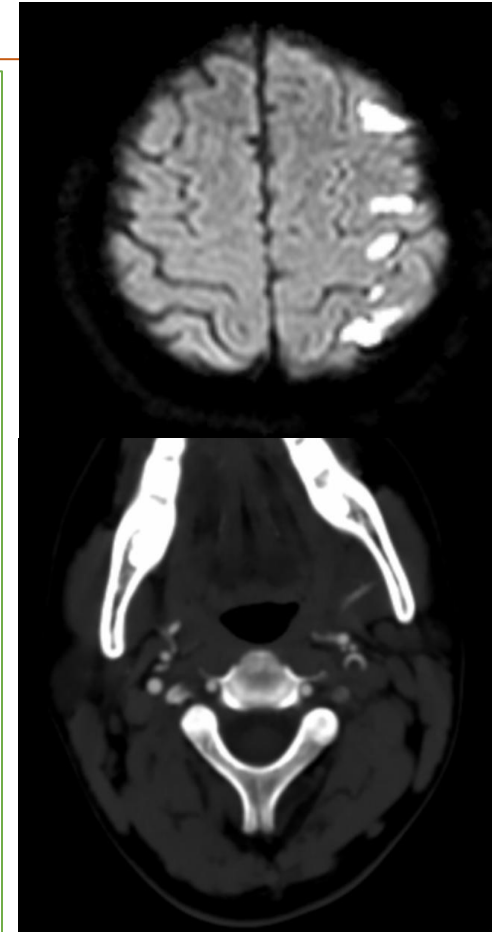
## Abstract Id-509: UNUSUAL ETIOLOGY OF TRANSIENT ISCHEMIC ATTACKS (TIA) - 2 CASE REPORTS

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**Background** - Carotid webs are intraluminal shelf like filling defects that could be mistaken for a focal dissection or ruptured plaque. They have a female preponderance of about 63% to 91%. Age at diagnosis is usually around 30 to 70 years with a prevalence of 0.7%. They are rare cases in which patients can present with multiple episodes of TIAs. They are described as non atherosclerotic fibrous bands that arise along the posterior margin of the carotid bulb. Carotid webs should be considered as rare differential diagnosis in case of patients presenting with TIA.

**Case 1**- A 28 years, right handed male who is a Sub Inspector of police by occupation presented with complaints of weakness of right hand, lasted for 2 minutes after waking up from sleep. Noticed 1 more similar episode during his bath, which lasted for 2 minutes and subsided. Later he noticed having difficulty in buttoning his shirt with right hand and difficulty in holding pen which persisted. No h/o any neck pain. Past history, family history and Personal history were not significant. .

**On Examination** patient is conscious, coherent and oriented. Vitals are stable. CNS examination - Right pronator drift present, Right hand grip - 80%- mild grip weakness, ABCD2 score- 3. Rest of the neurological examination was normal. MRI Brain was done suggestive of Left high parietal and high frontal patchy infarctions. MR Angiogram intracranial was normal. CT Angiogram was suggestive of Left proximal carotid thrombus. Later DSA was done which showed the same .



He was provisionally diagnosed as Acute Ischemic stroke with Recurrent TIA and was started on anticoagulation-Tab. APIXABAN 5mg twice daily. Planned for follow up after 2 months. Repeat DSA was done after 2 months, s/o Carotid web in left proximal carotid artery. Carotid stenting was done for that patient. He came for follow up 2 months after stenting and he had no new symptoms.



**CASE 2** - A 74 year old male , retired teacher presented with complaints of left upper limb and lower limb weakness , subsided within 24 hours, 6 months ago. Later had similar complaints for 3 more times, last episode was 3 days back, each time patient had h/o left hemiparesis with symptoms subsiding within 24 hrs. Past history, history and Personal history were not significant.

**On examination**, patient was conscious, coherent and oriented. Vitals were stable. CNS examination - No focal deficits during the time of examination. ABCD2 score - 5 MRI Brain and MR Angiogram s/o Normal study. was done s/o Carotid web at right proximal carotid artery. Patient was started on Dual anti platelets and statins and was advised for carotid stenting. He did not come for follow up .



## Discussion -

Carotid webs are intraluminal shelf like filling defects that could be mistaken for a focal dissection or ruptured plaque. Disease process affects the innermost layer with foci of marked fibroelastic thickening of the intima. Diagnosis is done by Digital subtraction Angiography (DSA) which is the Gold standard investigation for carotid webs. CT Angiography can also be done which shows carotid artery structures, degree of stenosis, characterization of lesion, presence of any calcified plaques, webs, ulcerations. MR Angiography with contrast also shows similar findings to CTA. Carotid USG was also advised previously but sensitivity is very low and its use in diagnosis was replaced.

Management strategy can be either Medical or through intervention. Medical management includes use of anticoagulants, antiplatelets which can be tried in the initial stages. Intervention is by carotid endarterectomy (CEA), carotid artery stenting (CAS).

A single centre study on 29 patients with carotid webs have shown superimposed thrombus in 29%, rate of recurrent stroke or TIA in 32%, 66% of them treated with carotid stenting with 0% periprocedural risks, rate of stroke / TIA recurrence post stenting in 0%.

Another multicentre study on 24 patients treated with carotid stenting for symptomatic carotid webs over follow up of 1 year, rate of recurrence of ischemic events - 0 %

## Conclusion -

Carotid webs are rare causes of TIA which are easily missed if proper evaluation was not done.

Gold standard investigation for diagnosis of carotid webs is DSA and once diagnosed can be managed using endovascular intervention techniques like carotid artery stenting with low recurrence rate of ischemic events and periprocedural risks.

## References-

1. Stroke - Pathophysiology, Diagnosis and Management - James C Grotta, Gregory W Albers, Joseph P Broderick, 6th edition
2. Bradley and Daroffs Neurology in clinical practice, 8th edition