



Figure 5: Carotid angioplasty filter

### CAN A MAJOR STROKE BE PREVENTED?

If the blockage is detected and treated successfully in time, further chances of a major stroke are minimized.

### CAN THIS PROCEDURE BE UTILIZED TO TREAT STROKE?

Once a patient develops stroke, some permanent damage would already have occurred in the brain. Hence, this treatment will not show significant improvement in managing the problems in such a case. Therefore, it is very essential to treat carotid blockage before a major stroke strikes you!



Vascular Society of India

Web: [www.vasularsocietyofindia.com](http://www.vasularsocietyofindia.com)

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**CAROTID  
ARTERY  
DISEASE  
CATCH STROKES  
BEFORE THEY  
CATCH YOU!**

FOR PATIENT INFORMATION / EDUCATION PURPOSES

# CAROTID ARTERY DISEASE



Vascular Society of India

## INTRODUCTION

Blockage in the carotid arteries in the neck is a common and important cause for the development of brain stroke or paralysis, a potentially disabling and often life-threatening condition. The role of a vascular specialist in removing this blockage is vital for the prevention of stroke. The causes or risk factors for blockage in the carotid artery are similar to those for blockages in the heart or leg artery.

## WHAT ARE THE SYMPTOMS OF BLOCKED CAROTID ARTERY?

Weakness or numbness on one side (leg, arm or face), slurred speech or visual disturbances are the usual presenting symptoms of a mini-stroke. Even if these events last for a few minutes or hours, they could be warning signs of carotid blockage and an impending stroke.

These symptoms need to be evaluated by a carotid Doppler test, which is a simple non-invasive sonography of the neck. A confirmatory angiography or CT angiography is performed if an intervention is planned.

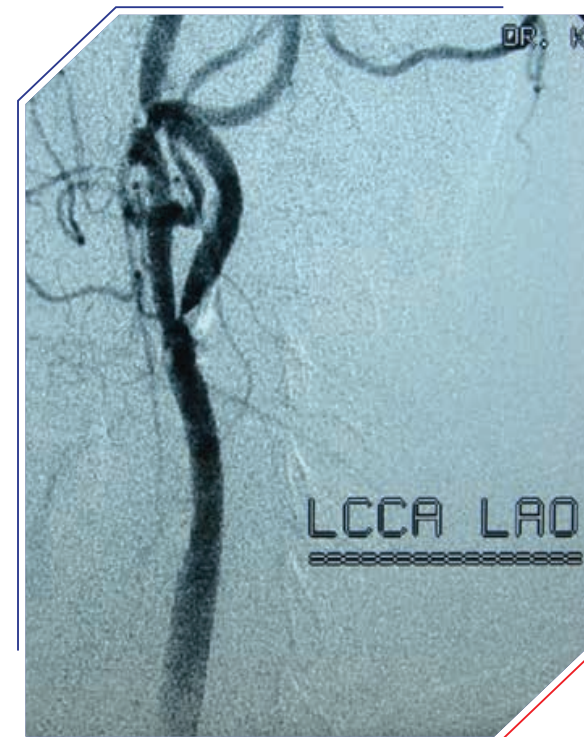


Figure 1: Angiography showing carotid stenosis

Additionally, patients with high blood pressure, diabetes, cholesterol or past heart problems should undergo a baseline carotid Doppler test.

## WHAT ARE THE TREATMENT OPTIONS?

Minor blockages (less than 50%) are treated with blood thinners and cholesterol-controlling medicines. If the blockage is more than 50%, surgery or angioplasty with stenting is recommended.

Carotid endarterectomy is a special surgical procedure for the removal of the carotid artery blockage. We routinely perform this procedure under a loco-regional anesthesia for the ease in intra-operative neurological monitoring. The artery is opened and the plaque carefully removed. During the surgery, we use a shunt to maintain blood flow to the brain. The artery is then repaired using a vein or graft patch to prevent narrowing.

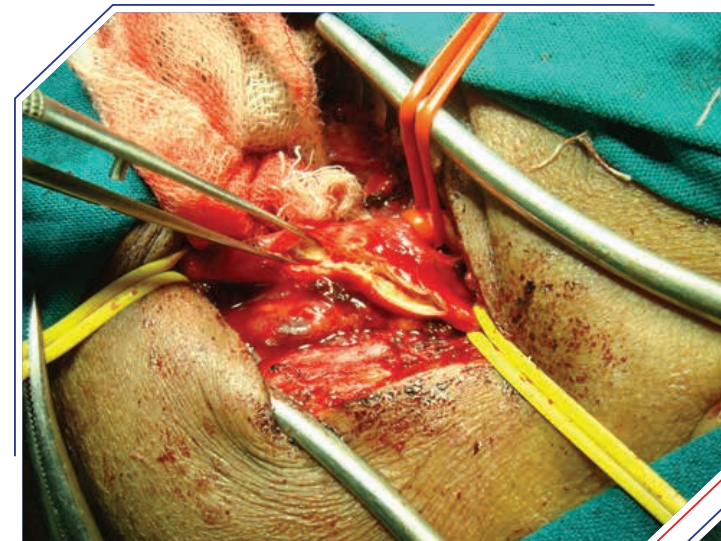


Figure 2: Carotid endarterectomy



Figure 3: Polytetrafluoroethylene (PTFE) patch



Figure 4: Excised carotid plaque

The other treatment option we offer is carotid angioplasty with stenting under a protection device. The protection device prevents small plaque particles from dislodging into the brain during stenting, thereby reducing the complications of this procedure to less than 3%. It is mainly performed in high-risk patients or those with high carotid bifurcation.