

Role of Carotid Endarterectomy in Stroke Risk Management

Choi Sang Woo*

Department of Surgery, University of Sydney, Sydney, Australia

Corresponding author: Choi Sang Woo, Department of Surgery, University of Sydney, Sydney, Australia, E-mail: choiwoo@gmail.com

Received date: July 23, 2024, Manuscript No. IPJVES-24-19707; **Editor assigned date:** July 26, 2024, PreQC No. IPJVES-24-19707 (PQ); **Reviewed date:** August 09, 2024, QC No. IPJVES-24-19707; **Revised date:** August 16, 2024, Manuscript No. IPJVES-24-19707 (R); **Published date:** August 23, 2024, DOI: 10.36648/2634-7156.9.4.213

Citation: Woo CS (2024) Role of Carotid Endarterectomy in Stroke Risk Management. J Vasc Endovasc Therapy Vol.9 No.4: 213.

Description

Carotid endarterectomy is a surgical procedure aimed at preventing stroke by correcting stenosis (narrowing) in the common carotid artery. This artery, located on both sides of the neck, is responsible for supplying blood to the brain, face and neck. When significant narrowing occurs, typically due to atherosclerosis a condition characterized by the buildup of fatty deposits (plaques) on the artery walls there is an increased risk of stroke. Carotid endarterectomy addresses this risk by surgically removing the plaque from the artery, thereby restoring normal blood flow. Carotid endarterectomy is generally indicated for patients with significant carotid artery stenosis, especially those who have experienced symptoms of cerebrovascular disease, such as transient ischemic attacks or minor strokes. The most commonly accepted criteria for surgery includes Patients with 70 percent or more narrowing of the carotid artery, especially if they exhibit symptoms.

In some cases, patients with 50%-69% stenosis may also be considered, particularly if they have experienced symptoms or have other risk factors for stroke. Individuals without symptoms may be considered for surgery if they have severe stenosis and other significant risk factors, such as advanced age or a history of cardiovascular disease. Patients undergo preoperative assessments, including imaging studies such as carotid duplex ultrasound or CT angiography to evaluate the extent of stenosis. Blood tests and other evaluations may also be performed. The surgery is usually performed under local anesthesia with sedation, although general anesthesia may be used in certain cases. Local anesthesia allows for quicker recovery and minimizes risks associated with general anesthesia.

A small incision is made along the neck, providing access to the carotid artery. The surgeon temporarily clamps the carotid artery above and below the area of blockage to prevent blood flow during the procedure. The surgeon opens the artery and removes the plaque buildup, often using specialized instruments. The inner lining of the artery may also be cleaned to ensure a smooth surface. After the plaque has been removed, the artery is sutured back together and the incision is closed with stitches or staples. Patients are monitored in a recovery area for several hours. Many can go home the same day or the next day,

depending on their overall health. As with any surgical procedure, carotid endarterectomy carries certain risks.

Although the surgery is intended to prevent stroke, there is a risk of stroke occurring during or shortly after the procedure due to the dislodgment of plaque or blood clots. Patients with underlying cardiovascular issues may face an increased risk of heart complications during surgery. The procedure can potentially damage nearby nerves, leading to temporary or permanent issues such as difficulty swallowing or facial weakness. As with any surgical site, there is a risk of infection at the incision site. Patients should discuss the potential risks and benefits of the procedure with their healthcare provider to make an informed decision.

Recovery and aftercare

Following carotid endarterectomy, patients typically require some level of postoperative care to ensure a smooth recovery. Patients are monitored for vital signs, neurological function and any signs of complications, such as bleeding or infection. Antiplatelet medications, such as aspirin or clopidogrel, are often prescribed to prevent blood clots. Statins may also be recommended to manage cholesterol levels. Patients are encouraged to adopt heart-healthy lifestyle changes, including a balanced diet, regular exercise, smoking cessation and weight management to minimize the risk of future vascular events. Regular follow-up appointments are essential to monitor the patient's recovery and assess the need for additional interventions. Imaging studies may be performed to check for any re-narrowing of the artery.

Carotid endarterectomy is a vital surgical intervention for individuals at high risk of stroke due to carotid artery stenosis. By removing plaque buildup and restoring blood flow, this procedure significantly reduces the likelihood of cerebrovascular events. While the surgery carries some risks, the benefits particularly for symptomatic patients often outweigh the potential complications. With appropriate postoperative care and lifestyle modifications, many patients experience successful recovery and improved long-term outcomes. As always, patients should engage in thorough discussions with their healthcare providers to determine the best course of action for their specific circumstances.