

## **A STATEMENT ON PERCUTANEOUS TRANSLUMINAL ANGIOPLASTY AND STENTING TREATMENT FOR CAROTID STENOSIS BY THE HONG KONG COLLEGE OF RADIOLOGISTS**

Surgical Carotid Endarterectomy (CEA) is currently the treatment of choice for critical carotid stenosis as evidenced by previous prospective multicentre controlled randomized studies (1,2,3). Meanwhile, percutaneous transluminal carotid angioplasty with stenting (PTAS) has been advocated as the routine alternative treatment to CEA. Despite its technical feasibility, PTAS lacks a large-scale, prospective randomized study to prove its comparable long-term efficacy and safety.

PTAS should be restricted to specific clinical circumstances in which the patients are considered unfit for open surgery by vascular surgeon/neurosurgeon and anaesthesiologist owing to high operative risks of CEA or concurrent medical diseases. A multidisciplinary approach in the management of carotid stenosis should be emphasized. Proper pre-operative assessment for PTAS should involve medical experts with appropriate knowledge of cerebrovascular pathophysiology (neurologist, neurosurgeon, vascular surgeon or neuroradiologist) in addition to the interventionists who perform the PTAS.

The interventionist should be one:

1. with documented training in intervention of vascular diseases
2. with experience as chief operator in vascular intervention
3. who is familiar with the equipment for vascular intervention
4. who understands the benefit and risk associated with the procedure
5. who can handle the complications of the procedure

When PTAS is considered the most appropriate treatment after joint multidisciplinary assessment, the patients should be fully aware of the nature and risks of PTAS as compared with the conventional treatment of CEA. Proper informed consent should be obtained. This is done after thorough counselling with both the operating interventionist and vascular surgeon/neurosurgeon who routinely and regularly performs the CEA in the particular medical institution. In any case, PTAS should only be performed in the group of patients who have met the same criteria as CEA for carotid stenosis.

### ***In conclusion,***

1. ***PTAS should not be considered as the treatment of choice for carotid stenosis until this is documented by the result of a large scale, well-controlled randomized study to substantiate its long-term safety and efficacy.***
2. ***PTAS as the alternative treatment for CEA should be restricted to circumstances when the patients are considered unfit for conventional treatment by CEA as assessed by vascular surgeon/neurosurgeon and anaesthesiologist.***
3. ***Participation of medical experts with knowledge of cerebrovascular pathophysiology is mandatory in the pre-procedure assessment of all contemplated PTAS.***

Endeavouring to protect public interest, these views concur with those of other professional authorities both locally (4) and overseas (5,6,7).

**Reference :**

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