

Clinical Image

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In-stent stenosis of the internal carotid artery

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Description

At present, the treatment of internal carotid artery stenosis has been extensively modified, passing from endarterectomy to balloon plasty and stent placement, generating a significant reduction in surgical risk [1]. In-stent stenosis is reported in up to 30% of cases and patients generally present with a transient ischemic attack or stroke [2]. Doppler ultrasound is an excellent tool for the evaluation of this pathology, accurately monitoring the percentage of in-stent stenosis and the hemodynamic repercussion it represents. In-stent stenosis of 50% correlates with velocities of up to 225 cm/s and greater than 70% correlates with velocities of up to 350 cm/s [3].

A 65-year-old male patient with a history of stent placement in the left internal carotid artery 10 years ago. He comes to the emergency room for a transient ischemic attack and requests a Doppler ultrasound of the carotid arteries as an initial approach. An ultrasound is performed, observing more than 90% of intra-stent stenosis and elevation of peak systolic velocities of up to 448 cm/s.

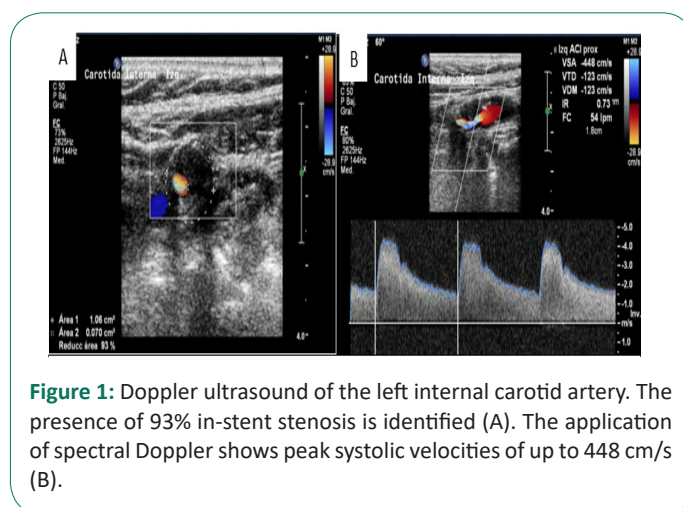


Figure 1: Doppler ultrasound of the left internal carotid artery. The presence of 93% in-stent stenosis is identified (A). The application of spectral Doppler shows peak systolic velocities of up to 448 cm/s (B).

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Conflicts of interest: The authors declare that they have no conflicts of interest.

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