



Vascular Medicine

SUPPORT FOR STANDARDIZATION OF DUPLEX ULTRASOUND DIAGNOSTIC CRITERIA FOR INTERNAL CAROTID ARTERY STENOSIS: A SURVEY FROM THE INTERSOCIETAL ACCREDITATION COMMISSION (IAC)

Oral Contributions
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Background: Carotid duplex ultrasound (DUS) is widely used for diagnosis of internal carotid artery (ICA) stenosis and therapeutic decisions are made solely on the basis of DUS findings. We have previously demonstrated wide variation in carotid DUS criteria among accredited vascular laboratories. In addition, the percentage of laboratories using NASCET methodology for angiographic correlation studies is unknown.

Methods: Electronic request to complete an on-line survey was sent to medical (MD) and technical directors (TD) of all IAC-accredited vascular laboratories.

Results: There were 729 respondents (729/2767, 26.3%) currently employed in a facility accredited in extracranial carotid testing (78.4% TD, 18.0% MD, 3.6% other role). Respondents used the following modalities for quality assurance (QA) correlation of DUS results: arteriography 69.7%, computed tomographic angiography (CTA) 86.1%, magnetic resonance angiography 76.1%, and surgical findings 63.1%. 89.4% of respondents reported use of > 1 modality. According to MD respondents, angiographic correlation studies were analyzed by NASCET methodology in 85.5% of facilities; ECST in 4.0% of facilities; 10.5% of MD respondents were uncertain of the method used. In response to whether there should be one set of standardized diagnostic criteria for carotid DUS, 68.1% (494/725) of answered yes. In response to whether laboratories should be required to incorporate standardized carotid criteria, 68.4% (494/722) answered yes. Answers to these two questions had a high degree of correlation ($R=0.756$, $P<0.001$). There was no statistically significant difference in response based upon role of the respondent (MD or TD). However, responses varied according to the specialty of the MD of the laboratory.

Conclusion: CT angiography is now the primary modality for correlation of carotid DUS with 85% of vascular laboratories using the NASCET methodology for analysis. Two-thirds of vascular laboratory personnel surveyed favor standardization of diagnostic criteria for ICA stenosis and support a requirement for use of standardized criteria in accredited facilities, though variability was seen depending on the specialty of the respondent.