Letter by Benedict et al Regarding Article, “What Causes Disability After Transient Ischemic Attack and Minor Stroke? Results From the CT and MRI in the Triage of TIA and Minor Cerebrovascular Events to Identify High-Risk Patients (CATCH) Study”

To the Editor:

Coutts et al\(^1\) report on the importance of computed tomography (CT) brain/CT angiography (CTA) as valuable imaging techniques in the assessment of minor stroke and transient ischemic attack (TIA). They show that patients with abnormalities on the CT/CTA metric were at high risk for disability, even in the absence of a recurrent event. We write to support their finding and present our data obtained from a COMMunity-Based rapid-Access TIA (COMBAT) clinic.

CTA offers a number of advantages, such as the possibility of morphological assessment of cerebral blood vessels, including site and length of occluded segments, and assists in selection of treatment for patients with TIA.\(^2\) It can also be interpreted relatively rapidly by radiologists and is generally more available than MRI, which has limited availability outside specialist units.\(^3,4\) MRI studies are more expensive than CTA, take longer to perform, and can present logistical difficulties for monitoring and treatment of acutely ill patients inside the scanner.\(^5\) Safety issues must be considered, such as the presence of metal clips, metal foreign bodies, and pacemakers—all contraindicative of MRI examination.\(^6\) Drawbacks to CTA include radiation exposure, risk of allergic reaction to iodinated contrast agents, and impairment of renal function (particularly in elderly and diabetic patients).

Because of limited evidence on the usefulness of CTA in assessing patients with TIA, we aimed to investigate whether the CTA would provide clinically important information that would alter the management of a significant proportion of patients with TIA. We conducted a study on a subset of COMBAT, a pilot clinic that recruited patients from September 2009 to April 2010. Patients were referred to COMBAT either by their general practitioner or the Emergency Department of The Queen Elizabeth Hospital for assessment and management of their TIA. Based on their ABCD2 score, patients scoring <4 (the low-risk limit)\(^7\) were given an appointment at COMBAT within 48 hours to see a general practitioner with a special interest in stroke.

Of the 33 patients, 17 (52%) patients enrolled during the 9-month pilot underwent CTA as part of their initial assessment (funding for MRI was unavailable under Medicare). Patient management information and reports, including 3-month follow-up, were collected from hospital case notes, COMBAT clinic files, and the South Australian hospital database. Images from CTAs performed outside the public healthcare system were accessed via televiewer and reviewed by an independent neuroradiologist. Of these 17 patients, 7 (41%) patients had a positive finding on CTA (as defined by a consultant radiologist). Five patients with significant CTA findings were considered for vascular intervention, 2 of whom had significant incidental findings of aneurysm, contralateral internal carotid artery stenosis, and cerebral artery stenosis. Given the high risk for surgery, 3 of these patients were treated with maximal medical therapy. The other 2 had significant ipsilateral internal carotid artery stenosis and underwent vascular surgery.

The COMBAT clinic is a novel pathway for management of patients with TIA in the community. Our findings require replication in a larger community study; however, we suggest that CTA can provide information that may significantly alter the management of patients with TIA. Our study, with similar findings to Coutts et al,\(^1\) emphasizes the importance of CTA in TIA in the community setting, also making it potentially useful in regional areas with limited imaging resources.

Disclosures

We obtained hospital ethics approval and the authors have no conflicts to report.

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