The Role of Ultrasound Compared to Biopsy of Temporal Arteries in the Diagnosis and Treatment of Giant Cell Arteritis (TABUL): a diagnostic accuracy and cost-effectiveness study

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Plain English summary
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Plain English summary

Giant cell arteritis (GCA) is a disease causing blood vessel inflammation which, if left untreated, can cause permanent blindness. Patients with suspected GCA usually have a minor surgical procedure that involves taking a biopsy from one of the arteries on the side of the head. A positive biopsy confirms the diagnosis, but many patients with negative biopsies are eventually diagnosed with GCA. We compared the accuracy and cost of an alternative test for GCA, namely an ultrasound scan of arteries, with taking a biopsy. We scanned and biopsied 381 patients with suspected GCA and followed them for up to 6 months to see who actually had GCA; 257 (67%) patients were eventually diagnosed with GCA. Ultrasound was better than biopsy at identifying patients who did have GCA: it identified 54% of these patients compared with 39% identified from biopsy. Biopsy performed better than ultrasound in the patients who did not have GCA: none of these patients had a positive biopsy, whereas 19% had a positive scan.

We also looked at different testing strategies combined with a doctor’s assessment of the patient. A strategy that involves scanning all patients with suspected GCA identified 93% of those patients with GCA. This strategy was also cheaper (by £485 per patient) than the current practice of relying on a doctor’s assessment and biopsy alone.
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