RESEARCH LETTERS

Frequency of Unintended Vein and Peripheral Nerve Biopsy With Temporal Artery Biopsy

The frequency of unintended vein or peripheral nerve biopsy with temporal artery biopsy has not been addressed specifically in the literature. The results of an inadvertent biopsy of a temporal vein or branch of the facial or auriculotemporal nerve are not inconsequential. Depending on the precise location in the temporal region and the type of peripheral nerve (motor or sensory), inadvertent peripheral nerve biopsy can result in considerable morbidity. It also requires that the procedure be repeated to obtain the correct tissue and, in some institutions, triggers a tissue committee review and clarification from the surgeon for the discrepancy between the intended and submitted tissue.

Methods. We examined the frequency of unintended biopsy of a vein or peripheral nerve among consecutive patients undergoing temporal artery biopsy at 2 institutions (James A. Haley Veterans’ Hospital from January 1, 1993, through December 31, 2007, and Emory University Hospitals and Clinics from January 1, 1989, through December 31, 2006). Patients were identified through computerized medical records; slides from all biopsies were retrieved and reviewed by a board-certified pathologist (J.G.J. and H.E.G.). An unintended biopsy of a vein or peripheral nerve among consecutive biopsies was defined as the presence of a vein or peripheral nerve in the absence of an artery. The 14 inadvertent biopsies (1.6%) were of either a nerve or vein rather than an artery, a result that fell within our 95% confidence interval. These estimates provide physicians with some guidelines on how to inform patients of the risk of repeat biopsy. Given the inconvenience, potential morbidity, cost of repeat temporal artery biopsy, and delay in obtaining a final diagnosis, efforts should be made to reduce the frequency of inadvertent biopsy as much as possible. The principle reason for inadvertent biopsy is unclear but may include lack of surgical experience or inadequate visualization of the tissue at the time of removal. Reducing inadvertent biopsies can be achieved first by raising awareness of the phenomenon and then by including a standardized procedure to confirm the correct tissue at the time of harvest. One method could use a magnifying lens (≥5×) to inspect the cut ends of the putative artery immediately after excision. These inexpensive lenses, which can be sterilized and packaged for use during surgery, have magnification sufficient to aid in the distinction of an artery of this caliber from a vein or nerve.

Jean Guffey Johnson, MD
Hans E. Grossniklaus, MD, MBA
Curtis E. Margo, MD, MPH
Philip Foulis, MD, MPH

Correspondence: Dr Margo, Department of Pathology, University of South Florida, 12901 Bruce B. Downs Blvd, MDC Box 11, Tampa, FL 33612 (cmargo@hsc.usf.edu).

Financial Disclosure: None reported.


High-Definition Optical Coherence Tomographic Visualization of Photoreceptor Layer and Retinal Flecks in Fundus Albipunctatus Associated With Cone Dystrophy

Fundus albipunctatus was originally thought to be a stationary disease. Lauber1 first described fundus albipunctatus and differentiated it from retinitis punctata albescens (a progressive tapetoretinal degeneration). Several investigators, however, recently suggested that cone dystrophy gradually develops in some patients.2-4 It was reported that mutations of the 11-cis-retinol dehydrogenase (RDH5) gene, which is expressed predominantly in the retinal pigment epithelium (RPE), cause fundus albipunctatus.

Comment. We were able to calculate the frequency of inadvertent vein or peripheral nerve biopsy from 1 other report.5 In that study, 4 of 250 consecutive biopsies (1.6%) were of either a nerve or vein rather than an artery, a result that fell within our 95% confidence interval. These estimates provide physicians with some guidelines on how to inform patients of the risk of repeat biopsy. Given the inconvenience, potential morbidity, cost of repeat temporal artery biopsy, and delay in obtaining a final diagnosis, efforts should be made to reduce the frequency of inadvertent biopsy as much as possible. The principle reason for inadvertent biopsy is unclear but may include lack of surgical experience or inadequate visualization of the tissue at the time of removal. Reducing inadvertent biopsies can be achieved first by raising awareness of the phenomenon and then by including a standardized procedure to confirm the correct tissue at the time of harvest. One method could use a magnifying lens (≥5×) to inspect the cut ends of the putative artery immediately after excision. These inexpensive lenses, which can be sterilized and packaged for use during surgery, have magnification sufficient to aid in the distinction of an artery of this caliber from a vein or nerve.

Jean Guffey Johnson, MD
Hans E. Grossniklaus, MD, MBA
Curtis E. Margo, MD, MPH
Philip Foulis, MD, MPH

Correspondence: Dr Margo, Department of Pathology, University of South Florida, 12901 Bruce B. Downs Blvd, MDC Box 11, Tampa, FL 33612 (cmargo@hsc.usf.edu).

Financial Disclosure: None reported.


High-Definition Optical Coherence Tomographic Visualization of Photoreceptor Layer and Retinal Flecks in Fundus Albipunctatus Associated With Cone Dystrophy

Fundus albipunctatus was originally thought to be a stationary disease. Lauber1 first described fundus albipunctatus and differentiated it from retinitis punctata albescens (a progressive tapetoretinal degeneration). Several investigators, however, recently suggested that cone dystrophy gradually develops in some patients.2-4 It was reported that mutations of the 11-cis-retinol dehydrogenase (RDH5) gene, which is expressed predominantly in the retinal pigment epithelium (RPE), cause fundus albipunctatus.