

**45th ANNUAL DIAGNOSTIC SLIDE SESSION, 2003
REFERENCES AND DIAGNOSES**

MODERATOR: E. Tessa Hedley-Whyte, M.D.

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Case 2004-10

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Diagnosis: Dissection of the right vertebral artery (V3 segment) and traumatic pseudoaneurysm of the left vertebral artery (V4 segment) distal to the posterior inferior cerebellar artery (PICA).

Comment: The "treatment" mentioned in the protocol was massage given by an aide to a chiropractor, while the chiropractor was out of the office. The dissecting aneurysm of the right vertebral artery extended for 3 to 4 cm, from C3 up to C1. Electron microscopy failed to demonstrate spiraled collagen that is typical for Ehlers-Danlos syndrome in the vessel with the dissection. Dissection has been described previously following neck manipulation, but pseudoaneurysm had not been seen previously in this setting.

References:

Dziewas R, Konrad C, Drager B, et al: Cervical artery dissection - clinical features, risk factors, therapy and outcome in 126 patients. *J Neurol* 2003; 250:1179-1184.

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Nadgir RN, Loevner LA, Ahmed T, et al: Simultaneous bilateral internal carotid and vertebral artery dissection following chiropractic manipulation: case report and review of the literature. *Neuroradiology* 2003; 45:311-314.

Nishioka T, Maeda Y, Tomogane Y, Nakano A, Arita N: Unexpected delayed rupture of the vertebral - posterior inferior cerebellar artery aneurysms following closed head injury. *Acta Neurochir* 2002; 144:839-845.