RESULTS: A magnetic resonance angiogram showed an atherosclerotic plaque in the ipsilateral carotid artery, which probably shed emboli during cervical joint mobilization.

CONCLUSION: The carotid arteries should be approached carefully in patients with known or suspected atherosclerotic disease of the carotid arteries.

CHIROPRACTIC IS A DISCIPLINE, FOUNDED BY D. D. Palmer in 1895, that attributes illness to incorrect alignment of spinal vertebrae and seeks to treat diseases by manual manipulation of the spine. Approximately 10% of Americans consult chiropractors on an average of seven to ten times per year, accounting for roughly 0.25 billion patient-visits per year. Despite this large number of treatment sessions, reported complications from chiropractic are uncommon. Less than 100 cases of stroke from chiropractic manipulation have been reported since 1925, most involving the vertebrobasilar system. Following is a case of central retinal artery occlusion from chiropractic manipulation.

An 87-year-old man suffered a brief syncopal episode at home. A right carotid bruit was detected in the hospital emergency room. Ultrasound examination showed severe stenosis of the proximal right internal carotid artery. Treatment with daily aspirin was initiated. Six months later the patient consulted a physical therapist because of neck stiffness and pain. A cervical collar was prescribed. The patient consulted a chiropractor because he was dissatisfied with this treatment. After an initial examination and x-ray of the neck, the patient was treated with "low-force joint mobilization from C2 to C7." While leaving the office, within minutes of his neck manipulation, the patient was unable to see with his right eye. After waiting a day in vain for spontaneous improvement, he came to our office. Visual acuity was R.E.: hand motions and L.E.: 20/30. There was a cherry-red spot in the macula and multiple emboli within retinal arteries (Fig. 1). Emergency efforts to restore retinal circulation, including paracentesis of the anterior
chamber, were unsuccessful. A magnetic resonance angiogram of the right carotid showed critical stenosis of the right internal carotid artery from an atherosclerotic plaque (Fig. 2). The patient declined carotid endarterectomy.

We suspect that cervical manipulation by the chiropractor dislodged an embolus from the atherosclerotic plaque that was obstructing the right carotid artery. Embolic stroke has also occurred from overly vigorous palpation or massage of the carotid artery by physicians.\textsuperscript{4,5} The carotid arteries should be handled gingerly in patients with known or suspected atherosclerotic disease of the carotid arteries. Before undertaking neck manipulation, chiropractors should inquire about cervical vascular disease, especially in older patients.

REFERENCES


Ocular Involvement in Epstein-Barr Virus-associated T-cell Lymphoma

Isabelle Cochereau, M.D., Daniele Hannouche, M.D., Claire Geoffray, M.D., Marianne Toublanc, M.D., and Thanh Hoang-Xuan, M.D.

PURPOSE: To determine if serous retinal detachment may occur in a case of Epstein-Barr virus-associated T-cell lymphoma.

METHODS: We examined a 51-year-old man who had recent loss of vision and poor general health.

RESULTS: Ocular involvement consisted of bilateral serous retinal detachment and choroidal infiltrates. The diagnosis of lymphoma was made by liver biopsy. The course of the disease was fulminating. Postmortem histologic examination disclosed a massive infiltration of the choroid and