Spontaneous dissection of the carotid and vertebral arteries: the 10-year UCSD experience.

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The etiology of spontaneous dissection of the carotid and vertebral arteries without antecedent trauma remains unclear. The goal of this 10-year review was to examine factors regarding presentation, diagnosis, treatment, and outcome for all patients at our institution who were diagnosed with spontaneous carotid dissections (SCD) or spontaneous vertebral dissections (SVD) with no prior trauma history. A retrospective chart analysis was performed involving all discharges from UCSD Medical Center from 1995 to 2005. Patients were selected for inclusion based on the diagnosis of carotid or vertebral dissection with no associated traumatic or iatrogenic cause for their presentation. Characteristics of these patients' medical risk factors, presenting symptoms, diagnostic method and time, treatment, and outcomes were analyzed. A total of 20 patients (10 male, age 44.8 +/- 12.9 yrs; 10 female, age 39.6 +/- 14.9 yrs) were included for study. These patients represented 12 cases of SCD and nine SVD. On presentation, a majority of patients with both SVD and SCD reported headache as their primary complaint while a significantly higher rate of nausea (25% vs. 67%, p < 0.01) was reported in SVD. SVD was associated with a significantly longer diagnostic time (11 hr vs. 16 hr, p < 0.01). The most commonly performed diagnostic exam in both SCD and SVD was magnetic resonance angiography (MRA). Anticoagulation was the primary treatment in 11 of 12 SCD and all nine SVD. One patient with persistent, symptomatic bilateral carotid dissection after anticoagulation was treated with stent placement resulting in unilateral intracranial hemorrhage (ICH). Length of stay was significantly longer in SVD (5 d vs. 7 d, p < 0.02). A significantly higher incidence of persistent neurologic deficits on discharge was seen in SCD (71% vs. 33%, p < 0.02). Radiographic evidence of cerebral infarction on discharge had a stronger correlation with clinical deficits in SCD. Although there were only two cases, those treated with endovascular therapy in the setting of SCD suffered complications related to the intervention. On discharge, there did not seem to be a correlation between persistent neurologic deficits and radiographic evidence of infarction in SVD reflecting that recovery after these episodes may not be predictable based on the appearance of the infarction.

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