ANTICOAGULATION THERAPY AND NONCARDIOGENIC STROKE

Data do not support the use of long-term VKAs for preventing atherothrombotic stroke for either intracranial or extracranial cerebrovascular disease. The Warfarin-Aspirin Recurrent Stroke Study (WARSS) found no benefit of warfarin sodium (INR 1.4–2.8) over aspirin, 325 mg, for secondary prevention of stroke but did find a slightly higher bleeding rate in the warfarin group; a European study confirmed this finding. The Warfarin and Aspirin for Symptomatic Intracranial Disease (WASID) study (see below) demonstrated no benefit of warfarin (INR 2–3) over aspirin in patients with symptomatic intracranial atherosclerosis and found a higher rate of bleeding complications. The first of several trials testing factor Xa medications for prevention of embolic stroke of unknown source failed to show benefit compared to treatment with antiplatelet medications. The oral factor Xa inhibitor apixaban was found to be noninferior to subcutaneous dalteparin for patients with cancer and venous thromboembolism; many oncologists are using Xa inhibitors to prevent second stroke in patients with malignancy.

It is our practice to prescribe aspirin for secondary stroke prevention in noncardiogenic cerebral embolism except for stroke associated with cancer (apixaban 5 mg twice daily) and the antiphospholipid syndrome (warfarin with target INR 2–3).

TREATMENT

Carotid Atherosclerosis

Carotid atherosclerosis can be removed surgically (endarterectomy) or mitigated with endovascular stenting with or without balloon angioplasty. Anticoagulation has not been directly compared with antiplatelet therapy for carotid disease.

SURGICAL THERAPY

Symptomatic carotid stenosis was studied in the North American Symptomatic Carotid Endarterectomy Trial (NASCET) and the European Carotid Surgery Trial (ECST). Both showed a substantial