Nontraumatic chronic subdural hematoma

In younger patients, subdural collections may be related to hypertension, coagulopathies, vascular abnormalities, and substance abuse.

The absolute rate of subdural hematoma during dual antiplatelet therapy is low, averaging 1.1 per 1000 patient-years. Chronic treatment with clopidogrel plus aspirin significantly increases the risk of subdural hematoma compared with aspirin alone [1)].

A retrospective review of 239 patients undergoing surgery for CSDH over a period of six years (2006-2011). The majority of patients (63%) in the non-trauma group were receiving anticoagulants and/or antiplatelet agent therapy prior to CSDH presentation, compared to 42% in the trauma group. [2)].

see Chronic subdural hematoma and anticoagulant therapy.

see Chronic subdural hematoma and cerebral hypotension.

Case reports

A patient with thrombocytopenia secondary to systemic HIV infection who presented with CSDH. Her coagulation profile was severe enough to preclude surgery. She was managed conservatively with tranexamic acid and responded well. The authors present the challenges they faced in the course of successful management of this patient [3)].

A 70-year-old female patient with spontaneous resolution of CSDH. She was chronically anticoagulated after percutaneous coronary intervention. Moreover, she denied previous mild head trauma and bleeding episodes. For personal reasons, she declined surgery. Treatment just included mannitol, which was used to alleviate the symptoms. Intermittent computed tomography showed gradually resolution of CSDH. Spontaneous resolution of nontraumatic CSDH is rare, with different mechanisms and computed tomography characteristics compared with that of traumatic CSDH. Dimerized plasmin fragment D in venous blood may be more sensitive in the judgment of types of CSDH [4)].

A 76-year-old male with a large chronic subdural hematoma that showed total regression with the mere suspension of aspirin, its only apparent causal factor, and that of an 81 year-old male on aspirin and clopidogrel with a chronic subdural hematoma who succumbed after burr holes due to two simultaneous severe hemorrhagic complications (cerebellar hemorrhage and ipsilateral acute subdural hematoma) are presented. The cases may provide support for the following management

strategies: (i) if conservative management and drug suspension are feasible, they may well be worth trying and lead to a favorable outcome; (ii) if a patient is at risk of developing a chronic subdural hematoma, namely because of a minor acute subdural hematoma, withdrawal of antiplatelet agents should be considered; (iii) if surgery is necessary, its delay allows for the metabolization of the drug and platelet renewal, thereby minimizing the risk of hemorrhage; (iv) if urgent burr holes are indicated, measures to improve platelet function should be undertaken [5].

A 64-year-old female receiving clopidogrel and aspirin antiaggregation therapy after percutaneous coronary intervention for non-STEMI myocardial infarction developed nontraumatic bilateral subdural hematoma with dizziness, vertigo and headache. Craniotomy had to be postponed because of reduced ADP platelet aggregability. Four days after clopidogrel withdrawal and transfusion of 12 platelet concentrate units, ADP aggregation transiently normalized and bilateral trepanation with hematoma evacuation was performed. The procedure was followed by excellent neurologic and clinical recovery; however, decreased platelet aggregability was recorded by postoperative day 12 despite strict clopidogrel and other platelet inhibitor withdrawal. Suspicion of Glanzmann thrombastenia was excluded by flow cytometry. Two weeks after neurosurgery, the right femoral vein thrombosis was detected by color doppler ultrasonography and therapy with fractionated heparin was initiated, followed by warfarin. The risk and incidence of hemorrhagic complications of antiaggregation and anticoagulation therapy are discussed. Caution is warranted on prescribing this potentially harmful therapy to older patients, generally burdened with other chronic comorbidities [6]

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