Caput medusae after sinus venous thrombosis

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A 62-year-old woman was admitted with a 2-month history of headache, impaired vision, and phosphenes. MRI and cerebral angiography revealed thrombosis of the posterior part of the superior sagittal sinus, the straight sinus, sinus confluence, and bilaterally the transverse sinus. Under anticoagulation, 6 months later the veins were partially recanalized. Since the patient’s first admission to the hospital, the veins on her hairless forehead were swollen, presenting as a “caput medusae” when she was lying on her bed (figure, A) but not when she was sitting (see figure, B). This phenomenon may be explained by the hindered venous outflow along the internal jugular vein, which has been suggested to be the predominant cerebrovenous drainage way in the supine position. The venous angiogram (supine position) revealed drainage of the superior sagittal sinus along the superficial middle cerebral vein and along the emissary veins through the diploe. In the upright position the spinal epidural veins may open as an additional drainage pathway and may improve cerebral venous drainage.1


Figure. Venous swelling at the forehead in the supine (A) but not the upright (B) position in a patient with sinus venous thrombosis. Venous drainage in the angiogram (supine position, C) revealed drainage of the superior sagittal sinus along the superficial middle cerebral vein and along the emissary veins through the diploe.