Spinal vascular malformation clinical features

Spinal vascular malformations can manifest a wide clinical spectrum of symptoms that range from progressive neurological deficits during the course of years to an insidious presentation from acute hemorrhage.

85% present as progressive neuro deficit (back pain associated with progressive sensory loss and LE weakness over months to years). Yet, SVMs account for <5% of lesions presenting as spinal cord "tumors." 10–20% of SVMs present as sudden onset of myelopathy, usually in patients < 30 yrs of age, [1) 2)] secondary to hemorrhage (causing SAH, hematomyelia, epidural hematoma, or watershed infarction).

Coup de poignard of Michon = sudden excruciating back pain with SAH (clinical evidence of SVM).

Foix-Alajouanine syndrome (subacute necrotic myelopathy): acute or subacute neurologic deterioration in a patient with an SVM without evidence of hemorrhage. Presents as spastic → flaccid paraplegia, with ascending sensory level and loss of sphincter control. Initially thought to be due to spontaneous thrombosis of the AVM causing subacute necrotizing myelopathy [3)] which would be irreversible. However, more recent evidence suggests that the myelopathy may be due to venous hypertension with secondary ischemia, and there may be improvement with treatment [4)].

▶ Clinical. Auscultation over spine reveals a bruit in 2–3% of cases. Cutaneous angioma over back is present in 3–25%; Valsalva maneuver may enhance the redness of the angioma [5)].

Initial symptoms are sensory or disturbances related to gait; later, disturbances in micturition, defecation or erection may occur.

Clinically, this presents with progressive neurological dysfunctions that, if diagnosed in a timely fashion, can be at least halted and in part reversed.

see Aminoff and Logue disability scale.

The severity of the neurological dysfunction may be predicted by the extent of DSA- and MRI-documented venous congestion and cord edema. There was a strong positive relationship between initial and posttreatment neurological dysfunction [6)].

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