## **Supplement**

**Supplementary Fig. 1.** Classification of CSDAVF according to Suh's classification.

A, B: Proliferative Type: A patient in their 70s with bilateral CSDAVF presented with diplopia and ocular pain (orbital and cavernous patterns). This subtype is characterized by significant shunt volume received from numerous fine arterial feeders from both the external carotid arteries (A, B) and dural branches of the internal carotid arteries (not shown). Drainage into both the IPS and left superior petrosal sinuses is displayed.

C, D: Restrictive Type: A patient in their 80s with right-sided CSDAVF presented with diplopia (cavernous pattern). Multiple arterial feeders from the left external carotid artery branches converged into the posterior portion of the right cavernous sinus in both the frontal (C) and lateral (D) views. Occlusion of the right IPS caused venous reflux in the ipsilateral superior ophthalmic and cortical veins.

E, F: Late-restrictive Type: A patient in their 70s with right-sided CSDAVF presented with chemosis (orbital pattern). The fistula has few arterial feeders from the right internal (E) and external (F) carotid arteries with a focus on the posterior cavernous sinus (arrows). Venous drainage is sluggish and primarily through the ophthalmic veins (arrowheads).

CSDAVF = cavernous sinus dural arteriovenous fistulas, IPS = inferior petrosal sinuses

