Quadruple thrombosis originating from the sphenoid sinus

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Aim: Superior ophthalmic vein thrombosis (SOVT) is a rare, serious ophthalmic emergency with high mortality and significant complications if not promptly diagnosed and treated. It is often an early indicator of cavernous sinus thrombosis (CST), which may lead to complications like pituitary insufficiency, hemiparesis and death. Less than 100 cases have been reported and just few cases describe simultaneous CST and bilateral ophthalmic vein thrombosis. This case report presents an 86-year-old female patient with SOVT and bilateral CST. Materials and methods: The patient was admitted with severe, persistent headaches and blurred vision in the left eye. Ophthalmological examination showed ptosis (more pronounced on the left eye), restricted ocular motility and no diplopia. Pupillary reactions were slightly delayed but symmetrical. In clinical examination hyperemia and mild oedema of the skin was detected. Nasal endoscopy revealed no abnormalities, except for a small septal spur. Neuroradiological workup confirmed bilateral SOVT and CST with right sphenoid sinus inflammation. Results: Treatment for SOVT varies depending on the underlying cause, and early diagnosis is crucial. The patient was treated with anticoagulants, antibiotics and surgery (right-sided sphenoidotomy with purulent material drained from the right sphenoid sinus). She showed improvement and was discharged with ongoing anticoagulation therapy. Conclusion: SOVT is a rare and severe condition that can lead to life-threatening complications if orbital cellulitis progresses to cavernous sinus involvement. This study adds the importance of a multidisciplinary approach and timely intervention to improve patient outcomes.

Key words: cavernous sinus thrombosis, inflammation, sphenoid sinus, venous thrombosis