

# Optic Nerve Crossing the Sphenoidal Sinus

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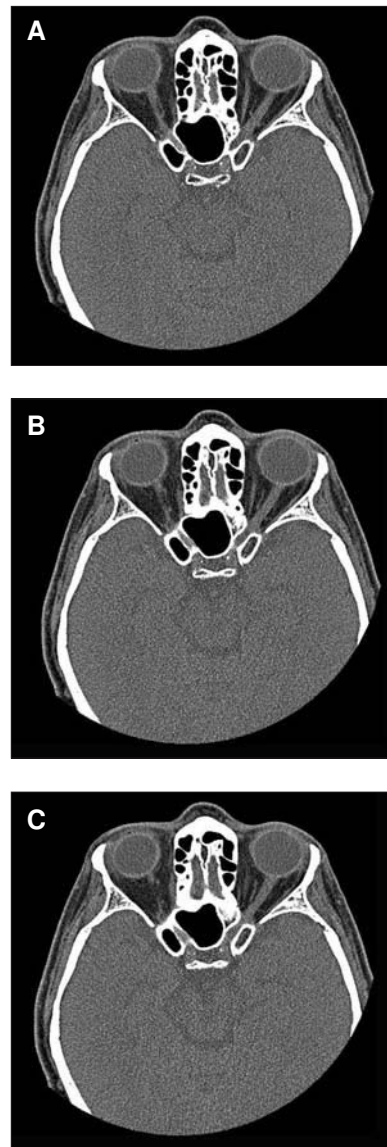
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We present here the case of a 43-year-old female patient who came to our clinic complaining of nasal obstruction lasting for 2 years. Her accompanying symptoms were itchy nose and frequent sneezing in springtime. She did not present any cephaleas or alterations in her sense of smell. There was no prior history of allergic rhinitis in her family. A complete physical ENT examination was conducted. The most significant finding was the considerable nasal congestion hindering the examination. A computed tomography of her paranasal sinuses was requested but no sinus involvement was reported. The image shows a right optic nerve crossing the sphenoidal sinus on the same side and a left optic nerve in intimate contact with the posterior ethmoid on the same side (Figure).

The classification of optic nerve relations with the posterior sinuses is: type I when the nerve runs along the side wall of the sphenoidal sinus without producing any indentation on the wall (76%); type II, the same as type I but causing indentation in the wall of the sinus (15%); type III when the nerve runs through the sphenoidal sinus (6%); and type IV when the nerve passes immediately adjacent to the sphenoidal sinus and the posterior ethmoid (3%). The type II and III variants are those producing the greatest risk of a lesion to the optic nerve in endoscopic sinonasal surgery. This case illustrates the need to request a CT scan of the paranasal sinuses and fossa in order to avoid irreversible lesions to major anatomic structures.



**Figure.** Optic nerve crossing the sphenoidal sinus at different levels. A: level 1. B: level 2. C: level 3.

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