

# Technical Description of Minimally Invasive Extradural Anterior Clinoidectomy and Optic Nerve Decompression. Study of Feasibility and Proof of Concept

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© 2019 Elsevier Inc. Background: Several diseases that involve the optic canal or its contained structures may cause visual impairment. Several techniques have been developed to decompress the optic nerve. Objective: To describe minimally invasive extradural anterior clinoidectomy (MiniEx) for optic nerve decompression, detail its surgical anatomy, present clinical cases, and established a proof of concept. Methods: Anatomic dissections were performed in cadaver heads to show the surgical anatomy and to show stepwise the MiniEx approach. In addition, these surgical concepts were applied to decompress the optic nerve in 6 clinical cases. Results: The MiniEx approach allowed the extradural anterior clinoidectomy and a nearly 270° optic nerve decompression using the no-drill technique. In the MiniEx approach, the skin incision, dissection of the temporal muscle, and craniotomy were smaller and provided the same extent of exposure of the optic nerve, anterior clinoid process, and superior o