Endoscopic Endonasal Approach For Chordomas - Video Session

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Objective
To demonstrate the surgical technique for endoscopic endonasal resection of skullbase chordomas (video session).

Methods
3 patients with interesting cases of skullbase chordoma will be presented focusing on the surgical technique.

Results
1. A 36-year-old female with a history of deep venous thrombosis 6 months ago which required anticoagulation (Marcumar) presented with sudden headache and third nerve palsy. CT scan showed a haemorrhage into a clival lesion. While waiting for MR imaging she developed a hemiparesis and a complete cavernous sinus syndrome. An emergency endonasal transclival resection was performed and a gross total resection achieved. Hemiparesis and cavernous sinus syndrome resolved soon after surgery.
2. A 2.5-year-old boy presented with bilateral abducens palsy. Although very young, an endonasal gross total resection was possible. Abducens palsy improved only on one side.
3. A 42-years-old female presented just with headache. CT and MR imaging showed a giant chordoma involving clivus and craniovertebral junction. A 2-staged resection was performed. At first the endoscopic endonasal approach was chosen. One day later, a dorsal approach with resection of the residual tumor and craniovertebral fusion was performed. She made an uneventful recovery. MR imaging showed a near total tumor removal.

Conclusion
The endoscopic endonasal transclival approach is the procedure of choice for most chordomas because they are midline lesions arising from the clivus. All nerves are displaced laterally which reduces the risks of neurological deficits.