

ENDOSCOPIC EXTRACTION OF THE IMPACTED WISDOM TOOTH FROM MAXILLARY SINUS

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We described a case of laterally situated impacted wisdom tooth extraction in maxillary sinus using an endoscopic endonasal approach. The technique was shown to be an adequate alternative to a traumatic transmaxillary approach earlier applied in such cases.

Key words: impacted tooth; endoscopy; transnasal approach.

An impacted tooth is the tooth, which for one reason or another is located apart from the natural anatomico-physiological position (an unerupting tooth). Impacted wisdom teeth are rather rare and, as a rule, require surgical extraction. The most frequently used technique is Caldwell–Luc approach or mini maxillary sinusotomy through the anterior wall of the maxillary sinus. In case of the former, a non-physiological additional ostium is formed in the inferior nasal meatus, the second technique is accompanied by an insignificant trauma of the anterior wall of the sinus. The removal of foreign bodies through the natural ostium can have many advantages: the absence of the traumatism of the anterior wall of the sinus, distension of the physiological ostium that is of primary

importance if there is an accompanying sinusitis since it does not require additional procedures (sinus puncture). No doubt, this variant is feasible in case of possible tooth mobilization, tooth visualization using angled optics, and the absence of deep attachment of the tooth in bony wall of the sinus.

We represent a case of the extraction of an impacted wisdom tooth using endonasal approach.

Patient R. visited a dentist to make a prosthetic appliance for the maxillary teeth on the right (overdenture restoration or dental implantation). The patient complained of periodical bursting pains in the view of the right maxillary sinus accompanied by the episodes of nasal congestion. He did not seek

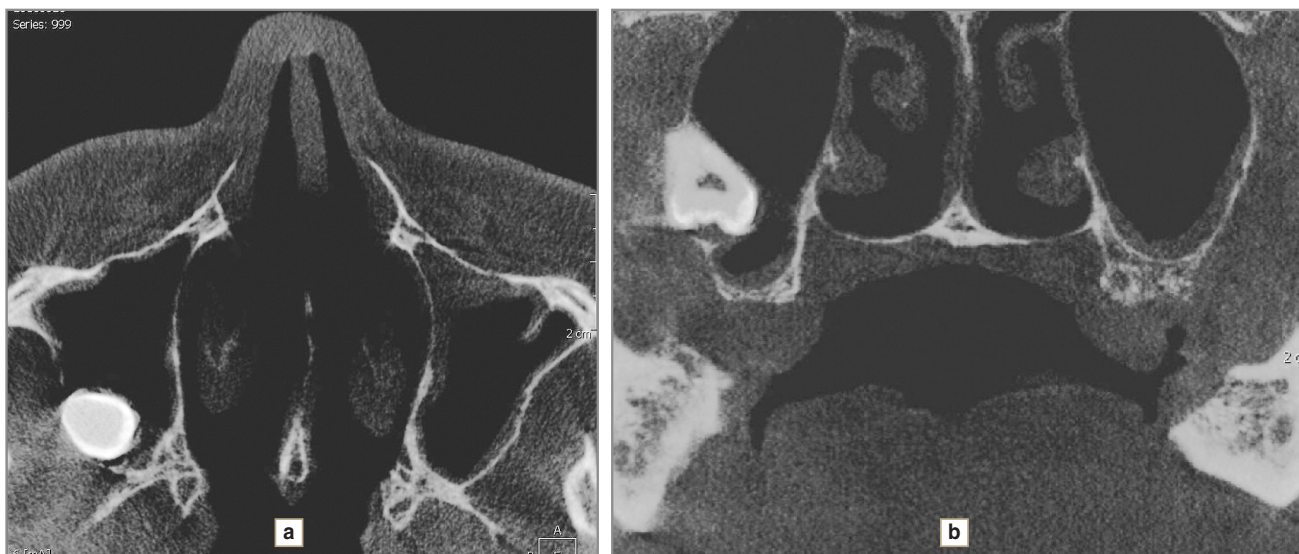


Fig. 1. Computed tomography: *a* — axial and *b* — front views

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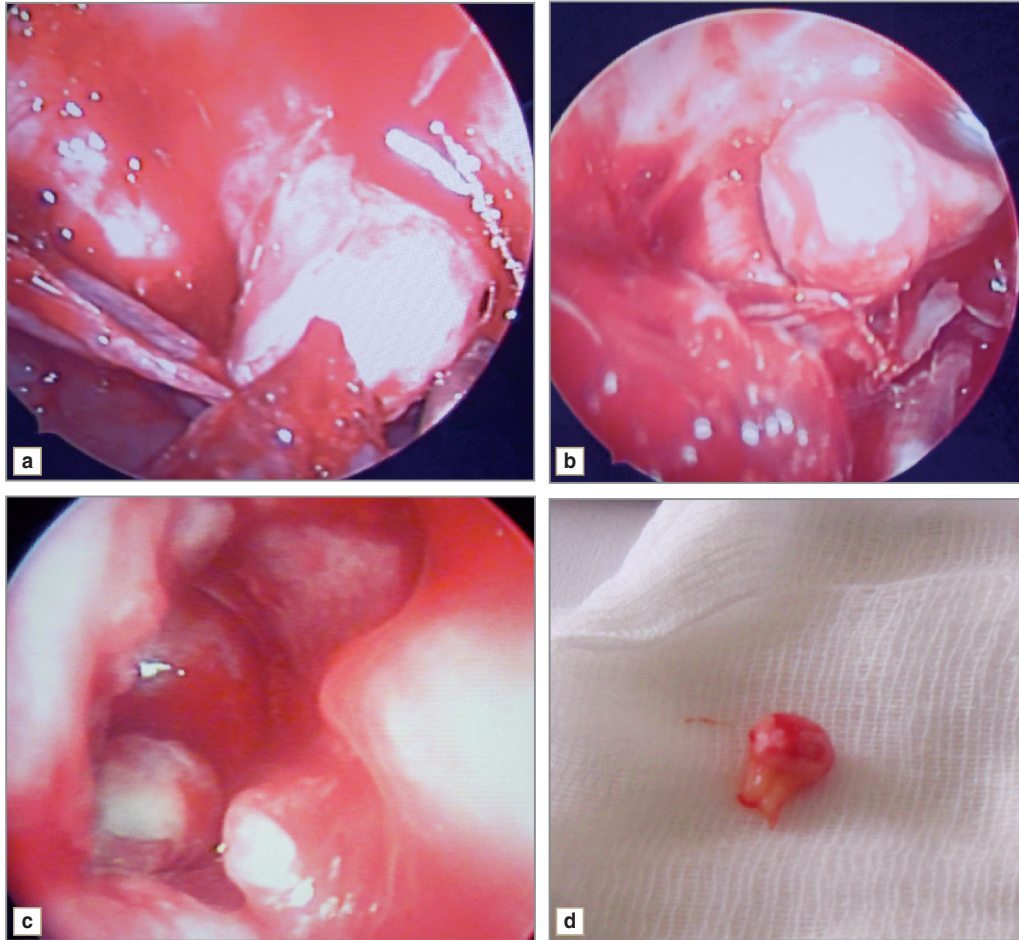


Fig. 2. Extraction of the impacted tooth: *a* — shelling out the tooth; *b* — operation stage; *c* — view through the broadened natural ostium; *d* — an extracted tooth

medical advice. In addition, computed tomography of the paranasal sinuses was performed, which revealed an impacted wisdom tooth located in the bony wall of the sinus, in the area of the lateral wall passage to the posterior one (Fig. 1).

After studying tomograms we chose the variant of endonasal endoscopic retraction of the tooth. Under general anesthesia we performed the approach to the natural ostium of the right maxillary sinus by hamulus resection. After that the ostium was broadened using the reverse cutting forceps. The sinus was examined by 70° endoscope. There was detected a mucous covered tooth located in the area of the lateral wall passage to

the posterior wall. Under the endoscopic control the tooth was extracted by a curved curette (Fig. 2).

Postoperatively the sinus was washed through the broadened natural ostium. There were observed no complications.

The characteristic of the present observation is the demonstration of the possibilities of the endoscopic approach to the maxillary sinus through a natural ostium. In case there are indications and technical ability, the technique can be an adequate alternative to a classical approach.