Rev Bras Otorrinolaringol.
V.71, n.3, 392-5, may/jun. 2005

ARTIGO ORIGINAL
CASE REPORT

Endoscopic treatment of odontogenic cyst with intra-sinusal extension

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Key words: odontogenic cyst, videoendoscopic surgery, oroantral fistula, chronic sinusitis.

Summary

Odontogenic cyst is a common lesion that can happen after inflammation of the dental pulp. The therapeutic approach of these cysts is made at dentist's offices, and depending on their extension, they may develop oroantral fistula and chronic sinusitis. The objective of this study is to propose the videoendoscopic treatment of the odontogenic cyst with expression in the maxillary sinus. We made a retrospective study of four cases of cysts of dental origin, with intra-sinusal extension, complicated with oroantral fistula and chronic sinusitis of maxillary sinus after curettage in a dentist's office. We used the videoendoscopic technique through transmaxillary approach to access the intra-sinusal cyst. All the four patients presented resolution of the infectious manifestation and healing of the oroantral fistula, without recurrence within two years of follow-up. Videoendoscopic surgery is a safe and effective method for the management of odontogenic cysts with extension to maxillary sinus, and it may prevent oroantral fistula formation and chronic sinusitis.

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Study conducted at Hospital Beneficência Portuguesa de São Paulo, Clínica Ivan Barbosa.
Presented as poster at 36º Congresso Brasileiro de Otorrinolaringologia, held in Florianópolis, SC, November 19 to 23, 2002.
Article submited on August 25, 2003. Article accepted on April 25, 2004.

INTRODUCTION

Odontogenic cysts are lesions that frequently rise in the maxilla and/or mandible, originating from epithelial remains associated with odontogenesis. The most frequent types are: periapical cyst (65%), dentigerous cyst (24%) and primordial or keratocyst (5 a 8%).[1,2]

The majority of these cysts are managed at dentist's offices using surgical approaches such as enucleation with use of Milton's solution or combined with cryotherapy, simple enucleation, curettage, marsupialization and tooth extraction.

Intervention of cysts found in the maxillary sinus may lead to oroantral fistula formation and chronic rhinosinusitis. This study aims at proposing a videoendoscopic technique to treat odontogenic cyst with intrasinusal extension as a complementary approach of the odontological treatment.

MATERIAL AND METHOD

Four cases of dental cysts with intrasinusal extension were operated on (Figures 1 and 2). They were outpatients treated by dentists who chose tooth extraction and transalveolar curettage as alternatives, which resulted in oroantral fistula (Figure 3) and chronic maxillary sinus suppuration.

Patients were surgically treated under general anesthesia. The procedure of choice was combined access through the canine fossa with lower meatotomy. Such approach is performed by means of a 10mm-circumferential antrotomy to allow simultaneous management of the optical fiber (4mm-rigid endoscope at 0º, 30º e 70º) and of small clamps (forceps and curettes for sinusal endoscopic surgery), achieving cyst resection. The cyst should be removed in a way that only the bone bed remains on the sinusal wall at the implantation spot.

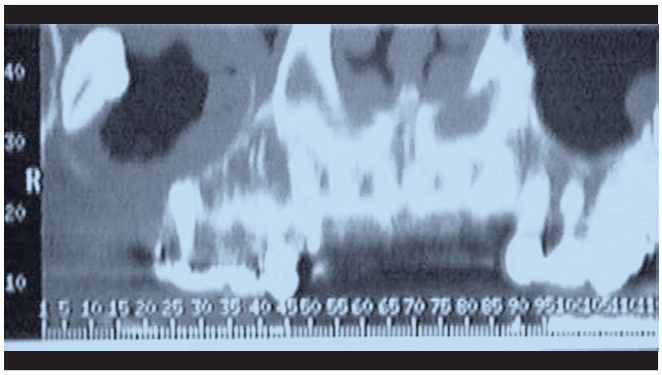

Figure 1. Computed tomography: Right intramaxillary cyst with oroantral fistula.

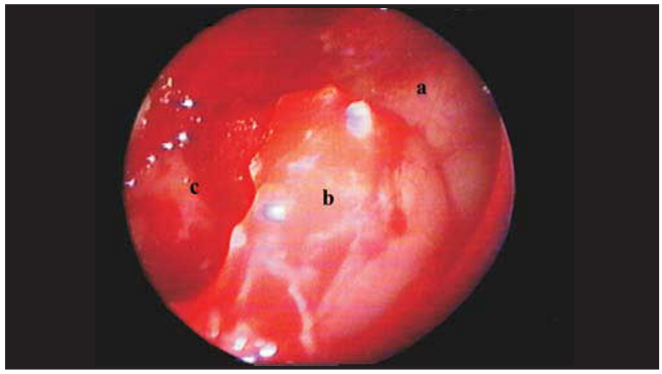

Figure 2. a: Posterior wall of maxillary antrum. b: Cyst capsule. c: Inner portion of cyst.

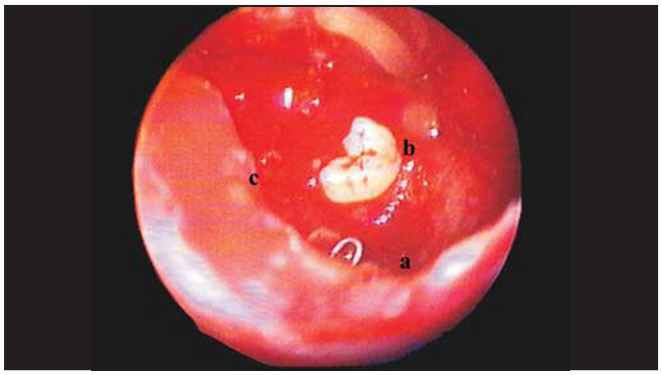

Figure 3. Maxillary sinus after cyst removal. a: Curette showing site of fistula. b: Included tooth. c: Lower edge of antrostomy.

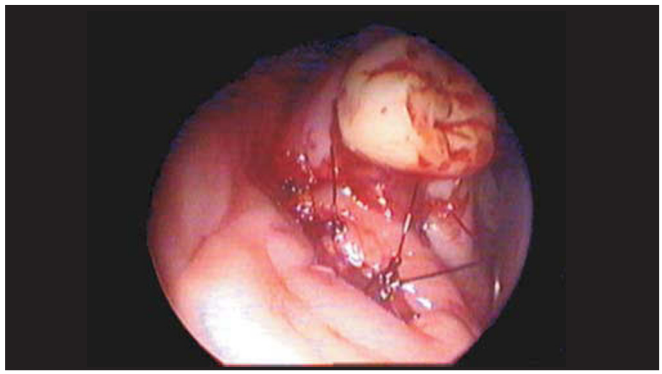

Figure 4. Oral aspect of mucous flap rotation over the oroantral fistula.