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CLINICAL VIDEO

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Surgical treatment of a congenital dacryocystocele by means of microdebrider marsupialization in a newborn

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Abstract

Congenital dacryocystocele is a rare clinical condition, more commonly unilateral, secondary to the defective canalization of the nasolacrimal duct. In case of failure of conservative treatment, surgical marsupialization is recommended. We describe the case of a 40-day-old male newborn treated by means of microdebrider marsupialization.

KEYWORDS

ear, nose and throat, paediatrics and adolescent medicine, ophthalmology

Domenico di Furia and Giovanna Cantarella equally contributed to this manuscript.

1 | CASE REPORT

Dacryocystocele is a congenital condition secondary to a defective canalization of the nasolacrimal duct involving the Rosenmuller and Hasner valves,[1] thus leading to the subsequent formation of a blueish cystic mass located at the medial cantus with possible extension to the nasal cavity under the inferior turbinate, causing respiratory obstruction[1] in severe cases. The first approach is usually a conservative treatment, while surgery is required when respiratory symptoms occur.[2] We here describe the case of a 40-day-old male newborn with a huge right dacryocystocele (Figure 1, Video 1) extending into the nasal cavity with a cystic mass arising from the inferior meatus, deforming the inferior turbinate and completely occupying the anterior part of the nasal cavity (Figure 2). The intranasal cyst was successfully treated by means of a transnasal endoscopic power-assisted marsupialization with microdebrider (Figure 3A,B); at the end of surgery, the nasolacrimal duct was cannulated to confirm its patency (Figure 3C,D). As previously described in literature,[1] this surgical option is more effective than lacrimal duct cannulation alone, and a valid alternative to the classic marsupialization by means of cutting forceps. In our case, this technique led to the resolution of respiratory symptoms and pathologic swelling (Figure 4A). Follow-up at 6 months showed no signs of recurrence (Figure 4B).

FIGURE 1 Right congenital dacryocystocele

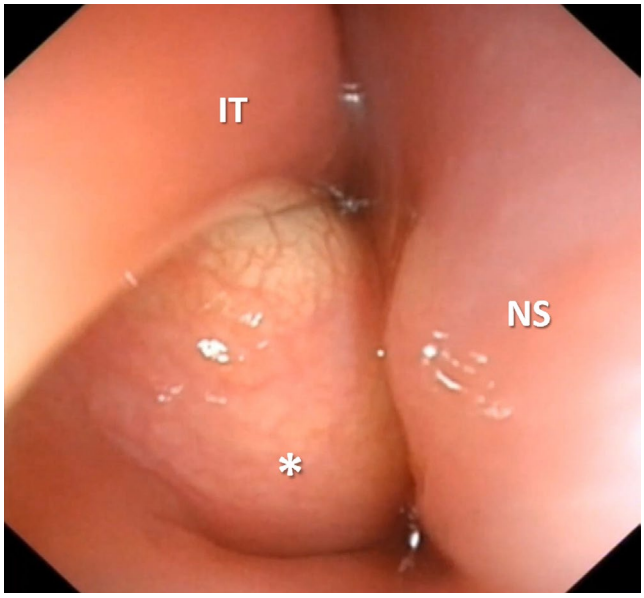

FIGURE 2 Nasal endoscopy showed a cystic mass (asterisk) arising from the inferior meatus, deforming the inferior turbinate (IT) and in contact with the nasal septum (NS), completely occupying the anterior part of the right nasal cavity

CONFLICTS OF INTEREST

Authors have no conflicts of interest to declare.

AUTHOR CONTRIBUTIONS

DdF and GC involved in clinical management of the patient, study conception, acquisition and analysis of data, and manuscript draft. MG involved in clinical management of the patient, acquisition and analysis of data, and manuscript draft. LP, SO, and LB involved in critical revision of the manuscript. All authors involved in review of the final draft of the manuscript and approval of the manuscript submission.

ETHICAL APPROVAL

Written informed consent was obtained from the patient's parents at the time of admission. The described procedure was in accordance with the ethical standards of the institutional and national research committee, and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

CONSENT

Written informed consent was obtained from the patient's parents for the publication of this case report and the accompanying images.

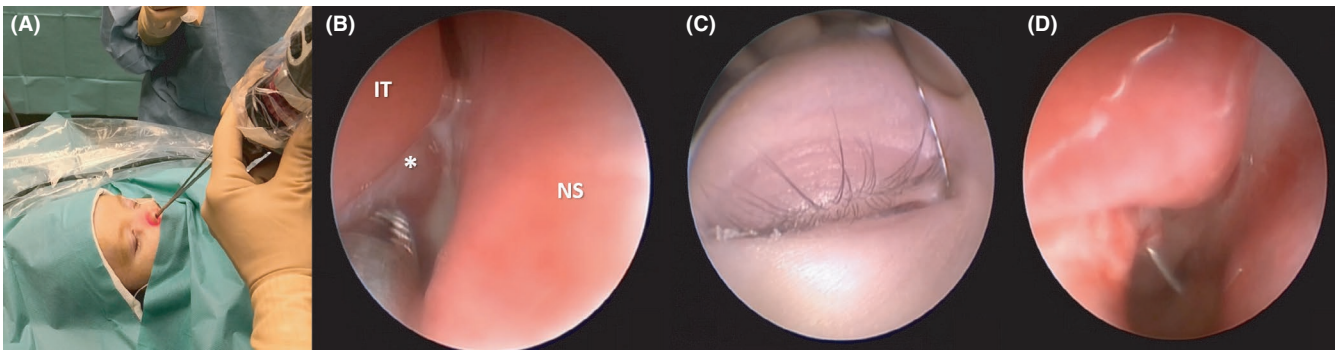

FIGURE 3 Transnasal endoscopic power-assisted marsupialization of the nasal cyst (A,B); purulent discharge coming from the nasal cyst (B) during the surgical marsupialization with microdebrider; at the end of surgery, the nasolacrimal duct was cannulated to confirm its patency (C,D)

FIGURE 4 No residual mass was detectable at the end (A) and after 6 months from surgery (B)

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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