Extended Draf IIb.2 Procedure In The Treatment of Unilateral Frontal Sinusitis

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Abstract

Background: Draf III procedure is a more destructive way for refractory frontal disease. In the meanwhile, extended Draf IIb.2 procedure also can provide a wide access in an unilateral lesion.

Method: We experience on a young male having left frontal full and pain for a long time. Computed tomography displayed the over-pneumatized right frontal sinus pushing intersinus septum toward left side and contributing to a narrowed left frontal draining passage.

Result: Extended Draf IIb.2 procedure was performed, silastic sheet was placed at the end. Patient had no more bothersome symptoms, and the corridor was kept patent during follow-up.

Conclusions: Extended Draf IIb.2 approach can be applied in confined, unilateral frontal lesions. The outcome is satisfied.

Keywords: intersinus septum, Draf IIb.2

INTRODUCTION

Traditionally, Draf III procedure is considered for accessing the refractory pathogens inside the frontal sinus. In the case of confined, predominantly unilateral lesions, Draf IIb procedure also provides wide access to the frontal sinus. This approach can be extended without destruction of the contralateral frontal sinus drainage pathway

CASE REPORT

We report on a patient suffering from left frontal dull pain, nasal obstruction and recurrent epistaxis for 6 months. This patient denied any systemic diseases and received examination in our department. A nasal fiberscopy revealed polyposis in the left nasal cavity. Computed tomography displayed the over-pneumatized right frontal sinus pushing intersinus septum toward left side and contributing to a narrowed left frontal sinus (Fig 1A). A large suprabullar cell further diminished the anterior-posterior diameter that made a small frontal recess (Fig 1B,C). In such condition, a simple drainage (Draf I) has high risk of re-stenosis, and Draf III may be too aggress We resected the agger nasi cell, suprabullar cell and anterior-superior portion of middle turbinate head. After exposing frontal recess and identified frontal orifice, drilling was performed in a back to forward direction by the irrigated RAD curved burr to expand the sinus opening (Fig 2A,B). Fortunately, the diseased sinus mainly contained mucoid discharge without severe polyposis, that was easily removed with irrigation and suction. Once identifying intersinus septum, we started to remove its lower portion and made a draining pathway to the right frontal sinus (Fig 2C). Finally, a silastic sheet was placed to prevent synechia (Fig 2D). After operation, patient soonly felt symptoms remission during follow-up.

the reason is the contralateral frontal sinus can facilitate the drainage even re-stenosis takes place.

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DISCUSSION

In confined, unilateral frontal lesions, a less destructive, limited approaches, defined as extended Draf IIb, can be applied

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without exposing the contralateral frontal sinus drainage pathway according to literature. Gotlib et al. have classified extended Draf IIb procedure into 3 subtypes [1]; Extended Draf IIb.2 (or mini-Lothrop) refers to Draf IIb procedure with removal of the lower intersinus septum. This technique is applicable for bilateral frontal lesions with one side limiting in frontal sinus or unilateral frontal sinus disease with intersinus septum deviation towards the lesion side. It can minimiz destruction of the contralateral frontal sinus drainage pathway when comparing to Draf III. The nasal septum can be kept intact as compared to Draf IIb.1 and Draf IIb.3 procedures.

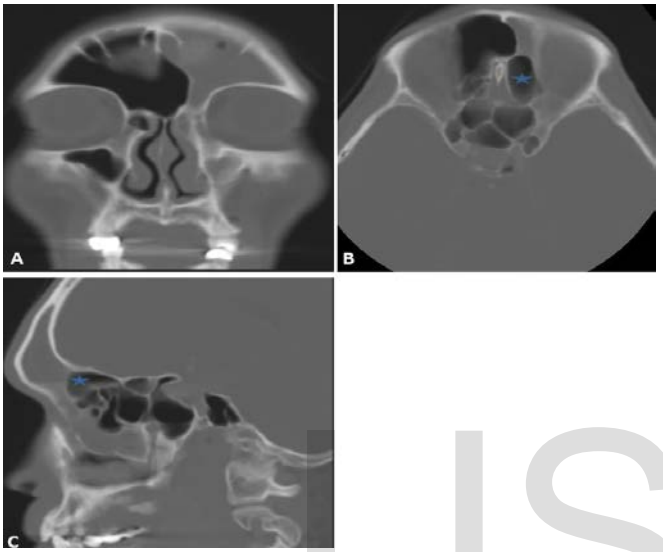

Fig1. (A) Coronal view: a well pneumatized right frontal sinus pushes intersinus septum toward left side and compresses left frontal sinus; (B) Axial view and (C) Sagittal view: a large suprabullar cell (blue asterix) further diminishes the anterior-posterior diameter of frontal recess and obstructs normal drainage.

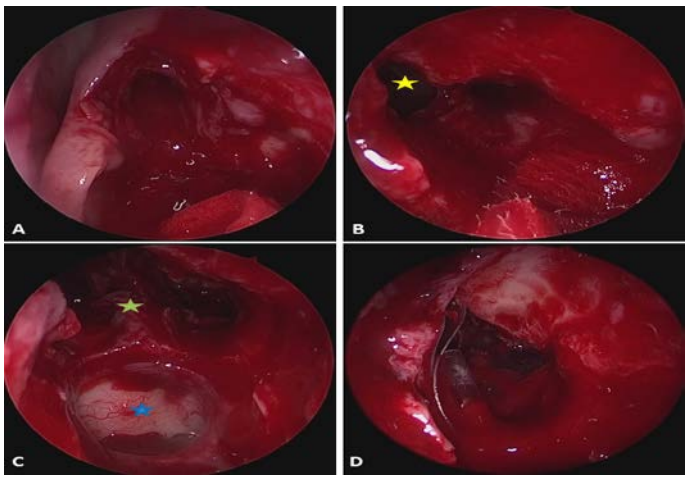

Fig2. (A) Agger nasi cell, suprabullar cell and anterior-superior portion of middle turbinate is removed to expose frontal recess; (B) Drilling is performed to expand sinus opening, right frontal sinus (yellow asterix) is exposed after breaking intersinus septum; (C) Intersinus septum (green asterix) is further resected that makes communication of bilateral frontal sinuses possible (blue asterix: roof of suprabullar cell); (D) A silastic sheet is placed to prevent synechia.

http://www.ccs.neu.edu/home/pb/mud-history.html. 1986.

ReferREFERENCE

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