



Title: Systematic Review of the Endoscopic Modified Lothrop Procedure for the Treatment of Chronic Frontal Sinusitis

Agency: ASERNIP-S, Australian Safety and Efficacy Register of New Interventional Procedures - Surgical

Box 688, North Adelaide, SA 5006, Australia; tel +61 8 82391144, fax +61 8 82391244; College.asernip@surgeons.org

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Aim:

To compare the safety and efficacy of the endoscopic modified Lothrop procedure (EMLP), performed either wholly intranasally or in combination with an external approach, against the current benchmark treatment, the osteoplastic flap procedure with or without fat obliteration (OPF).

Results:

The limited comparative data suggested that EMLP caused fewer adverse postoperative outcomes but was more likely to generate a perioperative cerebrospinal fluid leak than OPF. However, none of the morbidity traditionally associated with OPF was evident following EMLP. EMLP appeared to have a shorter operative time and a lower perioperative blood loss than OPF, but little could be determined regarding the long-term efficacy and durability of EMLP because of the relatively short followup in most studies.

Conclusions and Recommendations:

The evidence base for EMLP was found to be inadequate, and a national audit with standardized data reporting should be conducted to establish safety and efficacy. A concurrent national audit of the osteoplastic flap procedure was also recommended. The following clinical recommendations were made to guide the development of EMLP during this audit phase:

1. Otolaryngological surgeons should obtain institutional support and appropriately inform their patients before commencing EMLP.
2. EMLP should be performed only on appropriately selected patients by a properly trained otolaryngological surgeon who is accredited in the use of the procedure. Before performing EMLP, the surgeon should participate in a formal training workshop that includes surgical theory, endoscopic anatomy, and cadaver dissection. A minimum prescribed number of cadaver dissections and supervised surgical procedures should be performed before full accreditation is awarded.

Methods:

All original, published studies on the endoscopic modified Lothrop procedure and the osteoplastic flap, with or without fat obliteration, were identified by searching Current Contents, EMBASE, MEDLINE, and The Cochrane Library. Only studies of patients diagnosed with chronic frontal sinusitis were included for review. English language papers detailing randomized controlled trials, controlled clinical trials, case series, or case reports were included.