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The Endoscopic Modified Lothrop Procedure: Finally ready for prime time in the management of inflammatory sinus disease

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Sinusitis; quality of life; patient outcome assessment; endoscopy; diagnostic techniques; surgical

At about the turn of the century (~2000), I abandoned the Endoscopic Modified Lothrop Procedure (EMLP) for highly recalcitrant inflammatory sinus disease because my patients experienced too much stenosis of the neo-ostium in addition to frontal sinuses simply refilling with inflammatory disease.¹ It left me doubting there were any real intermediate or long term benefits for my patients. Now, some 15 years later, a lot has changed, and in fact I have recently stated that the *EMLP is an underutilized procedure in the management of medically and surgically recalcitrant inflammatory sinus disease.*

So what has changed since the turn of the century? Several new and/or improved factors are keys to success for this particular procedure. First, powered instrumentation has dramatically improved with drill speeds (30-60K RPM) and angles (70 degrees while maintaining high RPM). Not only have these decreased the time of the procedure but they also allow surgeons to maximize the size of the surgical neo-ostium, which maximizes the size of the ultimate neo-ostium. Second, the outside-in surgical approach along with reliable surgical navigation has further reduced procedural time and expanded candidacy to those with narrow anterior-posterior table widths.² In addition, utilizing a 2-surgeon, binarial approach substantially reduces operative time at our institution. Third, mucosal flaps, grafts, and other materials have improved healing time.³ Finally, the ability to effectively deliver topical steroid has been greatly improved with high volume saline irrigation containing off-label, potent topical steroids long used to treat asthma.⁴

Therefore, it is not one factor that is the key, rather several factors that have simultaneously evolved to bring us to the current era.

To keep things in perspective, the EMLP is still one that is not generally necessary for the vast majority of patients with even recalcitrant inflammatory sinus disease. It is a technically

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intensive procedure that should be performed at high volume frontal sinus surgery centers by surgeons with additional training and experience in revision frontal sinus surgery. I reserve this operation for patients who remain symptomatic with a high inflammatory disease burden despite having previously failed full house ESS with *complete* ethmoid and frontal recess dissections and appropriately aggressive postoperative medical therapy. These patients present regularly in my practice and my clinical observations, congruent with recent literature⁵ have led me to believe that the EMLP along with long term high volume saline irrigation/steroid delivery gives the greatest opportunity for disease control.

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