Medicolegal Issues in Endoscopic Sinus Surgery and Complications

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KEYWORDS

• Complications • Malpractice • Prevention • Injury • Blindness • Brain injury • Diplopia

KEY POINTS

- Complications of endoscopic sinus surgery can and do result in medical malpractice suits.
- Complications that are treatable and prevent orbit or brain injury are rarely involved in a suit; surgeon communications and documentation are essential with any complication.
- Orbital and brain injuries are the most common litigated complications.
- Working closely with the defense lawyer is essential.
- Expert review using a time expert is very important.

INTRODUCTION

Every endoscopic sinus surgeon should consider preparing a check list of items to check off before, during, and after surgery. This check list, in the same vein as a pilot uses when flying, can ensure better patient care and decrease risk of litigation. This list can be mental or written (print or IT; **Box 1**. See also the article by Eloy elsewhere in this issue, which provides an overview of complications in endoscopic sinus surgery [ESS]).

PREOPERATIVE

The initial history and physical examination presents an excellent opportunity to prepare for a surgery, anticipate needs for the surgery, and plan the procedure recognizing possible increased risks. As part of the history, previous sinus surgery should be noted. Revision surgery is always more problematic given equal disease severity. Any previous complications should be noted. Medical therapy for chronic sinusitis

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Otolaryngol Clin N Am 48 (2015) 827–837
http://dx.doi.org/10.1016/j.otc.2015.05.014 **oto.theclinics.com**
0030-6665/15/$ – see front matter

Box 1
ESS preoperative, operative, and postoperative check lists

ESS Preoperative Check List

1. Review all patient data for problem areas.
2. Review CT scans, checking anatomy.
3. Use endoscope to review anatomy at beginning of surgery.
4. Control bleeding.

ESS Operative Check List

1. Use landmarks as a guide for surgery.
2. Know and observe areas of thin bone orbit and medial ethmoid skull base.
3. Control bleeding during surgery.
4. Use an instrument for measurement to know distances; make sure image guidance is properly calibrated.
5. Observe eyes during surgery.
6. Use bulb press test to test for lamina papyracea dehiscence.
7. Use microdebrider carefully adjacent to orbit or skull base.
8. Any sudden bleeding near skull base, suspect cerebrospinal fluid leak.

ESS Postoperative Check List

1. Check patient mental status.
2. Observe for any eye or orbital changes or vision loss.
3. Observe for severe headache or clear fluid drainage, nausea, or vomiting.
4. In clinic, ask about clear fluid leakage.

Abbreviation: ESS, endoscopic sinus surgery.

and/or polyps should be noted and the success of treatment. Duration of treatment with oral and topical steroids and antibiotics by the surgeon or other treating physicians should be noted. Medical therapy should be noted in an attempt to make sure the patient has used "maximal" medical therapy before undergoing any planned surgery. Smell should be ascertained on a severity scale on and off prednisone or by using scratch and sniff smell testing. All of these assessments should be documented as part of the database necessary to make an informed decision regarding the patient's need for surgery. Many of these historical points may be critical to the defense of malpractice suits, where indications for surgery or loss of smell are contested.

The physical examination, and especially the endoscopic examination, are important from a medicolegal standpoint. The extent of disease can be qualified and quantified, and changes in anatomy identified. Anatomy creating exposure problems needs to be identified. For example, a septal deviation that narrows the surgical field may direct the surgeon too lateral toward the orbit (**Fig. 1**). This issue has been raised in medicolegal circumstance questioning proper visualization and exposure as a cause of a complication. A middle turbinate that is compromised by disease or associated with a low-lying skull base is hazardous. Anatomy totally distorted or obscured by severe polypoid disease is potentially problematic. Revision surgery with partially or totally missing landmarks is hazardous. This usually comes into play with frontal sinus surgery and altered middle turbinates with scarring or sphenoid sinus surgery.