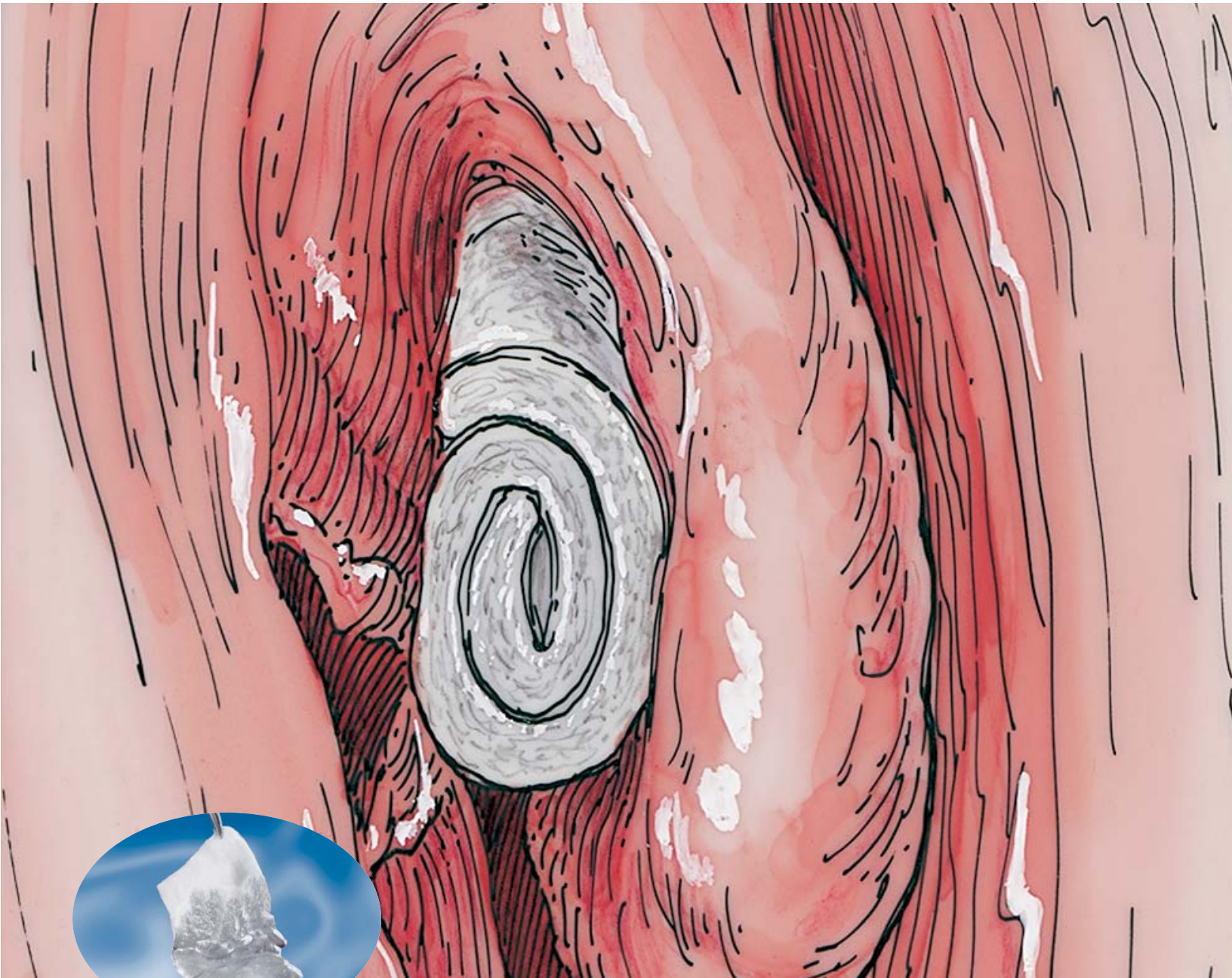


MEROGEL[®]

Nasal Dressing and Sinus Stent



Presented by Rodney P. Lusk, MD

Why choose hyaluronic acid?

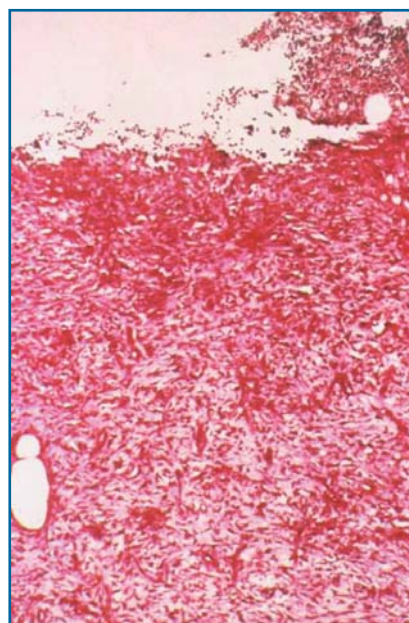
For many years, surgeons have used a variety of different devices or packing materials following Functional Endoscopic Sinus Surgery (FESS) to absorb drainage and to prevent the middle turbinate from lateralizing. The ideal material or device for a postoperative mucosal dressing following FESS would help maintain the cavity, decrease mucosal edema, inhibit bacterial growth, promote hemostasis, help prevent scar formation, and be bioresorbable or dissolve, obviating the need for removal. MeroGel® Nasal Dressing and Sinus Stent is made from a unique biomaterial – esterified hyaluronic acid, or HYAFF® - that helps achieve these objectives.

What is hyaluronic acid ?

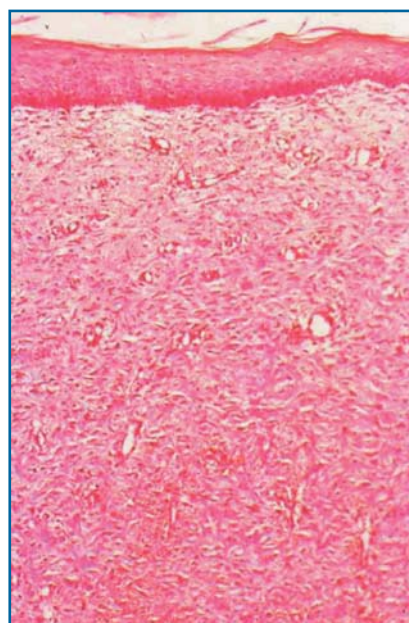
Hyaluronic acid is a linear polysaccharide and naturally occurring constituent of the extracellular matrix. It is found in humans in high concentration in synovial fluid and vitreous humor of the eye. Well-established biocompatibility and wound-healing properties have enabled hyaluronic acid to be used as a medical device to reduce the incidence and severity of postoperative adhesions in the abdominopelvic cavity. Studies¹⁻⁷ have shown that wounds heal faster and the quality of tissue repair is higher with less fibrous scarring in the presence of hyaluronic acid (Figure 1).

Nota Bene: The technique description herein and the use of instructions for the related procedures are made available by Medtronic ENT to the healthcare professional to illustrate the author's suggested treatment for the uncomplicated procedure. In the final analysis, the preferred treatment is that which, in the healthcare professional's judgment, addresses the needs of the individual patient.

Figure 1



Biopsy one week after full thickness skin excision in an animal model treated with conventional wound dressings



Biopsy one week after full thickness skin excision in an animal model treated with esterified hyaluronic acid

Philosophy by Rodney P. Lusk, MD

Following Pediatric Functional Endoscopic Sinus Surgery, the middle turbinate is left intact in the majority of cases. The narrow area that we operate in is only about 3.5 mm wide, so keeping the middle turbinate from lateralizing and forming adhesions is especially challenging. In the past, we have placed Gelfilm® Dressing in the middle meatus to serve as a spacer or stent for the first two weeks. At the time of the two week postoperative visit, we remove the stent and clean and inspect the cavity. Over a period of approximately three years, we have found that there is a variable amount of granulation tissue that forms around the Gelfilm. Ideally, we would have no granulation tissue form. Recently, we have used the MeroGel® product postoperatively in older pediatric patients in the middle meatus as a nasal dressing and sinus stent. This nonwoven biomaterial absorbs about 10 times its weight in blood and drainage and provides a physical matrix for clot formation. After the first 24 to 48 hours, the MeroGel dressing transforms into a mucoadhesive gel at the site of the surgical wound, providing excellent stenting properties to assist in separation of mucosal surfaces. Upon examination at two weeks, we have found the dressing is mostly dissolved, eliminating the need for packing removal and another anesthetic. Upon postoperative examination, we have seen excellent healing in the nasosinus cavity without the formation of excessive granulation tissue.

Figure 2

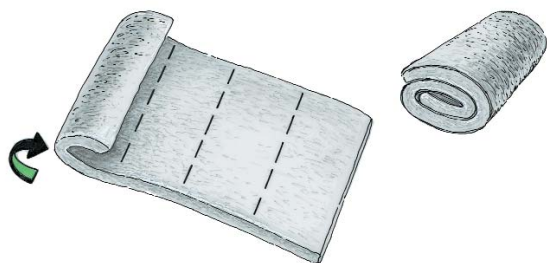
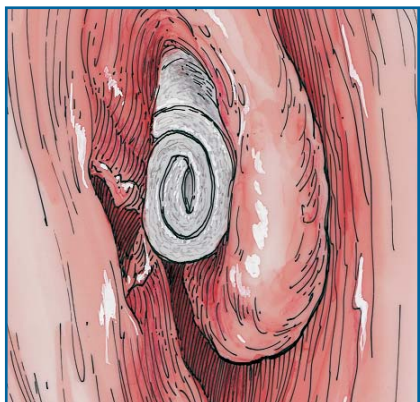


Figure 3



Surgical Technique

1. Trim the MeroGel dressing* to an appropriate length and fold 3-4 times (Figure 2).
2. Insert into the anterior ethmoid cavity with bayonette forceps and position between the lateral surface of the middle turbinate and the removed uncinate process (Figure 3).
3. The telescope is positioned on the end of the roll and the forceps are disengaged. The position of the stent is re-checked and, if appropriate, the procedure is terminated.

**Amount of MeroGel material used may be judged by the surgeon based on the anatomy of the particular patient.*

Ordering Information

Qty

1517000

1

MeroGel Nasal Dressing and Sinus Stent

1517002

2

MeroGel Nasal Dressing and Sinus Stent, Double Pack

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