Whats new in Anal Fistula Surgery

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Fistula & Abscess: Outline

- Evidence Based Review
  - Level IV Evidence
- Traditional Management
- Crohn’s Fistulas
- Current concepts and controversies
- Practice Algorithm

Perianal Abscess

- Occluded Duct of Anal Gland
- Treatment Goals
  - Incision and Drainage
  - Catheter
  - Office vs. OR

Anorectal Abscesses

- Anterior: external sphincter
- Posterior: anococcygeal ligament
- Superior: levator sling
- Inferior: anococcygeal ligament / external sphincter
- Lateral: communicates with ischiorectal fossa

Anatomy

- Elusive course of deep postanal space abscess: a need for awareness during initial surgery
- 63% Previous Surgery
- 57% 2 Previous Surgeries
- 85% Closure, Fistulotomy

Deep post anal space

- Anterior: external sphincter
- Posterior: anococcygeal ligament
- Superior: levator sling
- Inferior: anococcygeal ligament / external sphincter
- Lateral: communicates with ischiorectal fossa
**Perianal Abscess**

- Occluded Duct of Anal Gland

**Treatment Goals**

- **Incision and Drainage**
  - Detailed Explanation
  - Topical Spray, No Prep
  - 25-27 Gauge Needle
  - 3-5 cc Syringe
  - Stab Incision, Small catheter
  - Proximity to Anal Verge

**Need for Antibiotics**

- Immunosupression
- Diabetes
- Prosthetic Devices
- AHA
  - Prosthetic valves
  - Bacterial endocarditis
  - Complex congenital heart disease
  - Pulmonary shunts
  - Congenital cardiac malformation
  - Hypertrophic cardiomyopathy
  - Mitral valve prolapse

**FISTULOUS ABSCESS TIMING OF FISTULOTOMY**

- Primary vs. Secondary Fistulotomy
  - Sano AP, et al. JCR Nov. 1998

- 38 to 50% WILL NEVER NEED SURGERY

**Fistula: Clinical Presentation**

- Chronic purulent drainage
- Cyclical pain
- History of abscess
- Inability to keep clean
- Pain preceding drainage

**Imaging: MRI**
Surgery for Complicated Fistula-In-Ano

Incontinence Morbidity → Recurrence

Simple Fistula-in-Ano

Treatment Options:
- Fistulotomy
- Advancement Flap
- Cutting Setons
- Surgisis Plug
- Fibrin Glue

Low Recurrence
Increased Incontinence

Treatment Options:
- Fistulotomy
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Reduced Incontinence
Increased Recurrence

Treatment Options:
- Fistulotomy
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Location: Simple is Not “Easy”

- SUBCUTANEOUS
- INTERSPHINCTERIC
- TRANSPHINCTERIC
  - Low
  - High
- SUPRASPHINCTERIC
- EXTRAPHINCTERIC

Simple Fistula-in-Ano

- 55-70%
- DIAGNOSIS
- MORBIDITY
- TREATMENT
Simple Anorectal Fistula: Diagnosis

- **PHYSICAL EXAM**
- **EUA**

- **IMAGING**
  - US
  - MRI

Simple Fistulotomy

- **Local Anesthesia**
- **Probe**
- **Injection**
- **Open, Curette, Bx**
- **Marsupialization**

Simple Fistulotomy: Principles and Technique

**Marsupialization**
- Healing
  - 6 wks. vs. 10 wks
- Manometry
  - Increased SP

Simple Fistulotomy: Homogenous

- **Simple vs Seton Fistulotomy**
  - 425 patients
  - Males Only
  - Excluded
    - Crohn’s, Previous Surgery, Radiation, Complex
  - Mean Followup 5.8 years
  - Fistulotomy Group
    - Minimal Complications
    - Less seepage

Complex Fistula

- “Higher risk for incontinence”
  - Track crosses > 30 to 50% of the external sphincter
  - Anterior in a female
  - Multiple tracks
  - Recurrent
  - Pre-existing incontinence
  - Radiation
  - Crohn’s

Complex Fistulas: Treatment Options

- **Endorectal advancement flap**
- **Setons and staged fistulotomy**
- **Fistula plug**
- **Fibrin glue**
- “Lift” procedure
Endorectal advancement flap

- Obliterates septic focus
- Sphincter sparing
- 55 to 98% success
- Minor incontinence: 31%
- Major incontinence: 12%

Endorectal advancement flap

- Long-term outcome of endorectal advancement flap for complex anorectal fistulae.
  - 2003-2007: 38 ERF
  - 81% Previous Surgery
  - 19% Complications
  - 83% Closure Rate
  - Rectovaginal Fistulas associated with increased recurrence

1999-2004
30 Patients
Homogenous Group
- Anterior Fistulas
- High Transsphincteric
- 69% Primary Success
- 44% Secondary Success
- Overall 84% Closure

Predictors of Poor Outcomes
- Undrained sepsis
- Cancer or radiation
- Fistula present < than 6 weeks
- Crohn’s proctitis

Separate track from opening, curette and close internal opening, tack tension-free flap over opening

Issues remain:
- Flap thickness
- +/- Fistulectomy
- Flap shape
- External defect closure?
**Endoanal flap for RUF**
- Garofalo, Delaney, et al, DCR 2003
  - 23 RUF over 20 years
  - 31 month mean follow-up
  - Fecal and urinary diversion in 52%
  - Fecal diversion in 30%
- MAF:
  - 12 cases, 67% primary, 83% secondary success

**Staged Fistulotomy**
- Use of Setons
  - Induce peripheric fibrosis
  - Gradually tightened
  - Low recurrence rates 0-8%
  - Minor incontinence 34-63%
  - Major incontinence 2-25%

**Fibrin Glue**
Fibron Glue Treatment of Complex Anal Fistulas Has Low Success Rate
Loungnarfath et al. DCR April 2004

**Complicated Fistula-In-Ano**
WHAT ABOUT PLUGS??

**Surgisis Plug**
Christoforidis et al.
32% vs 65% (EAF)
McGee et al.
Success > Tract Length
Overall = 48%
< 4cm = 28%
> 4cm = 63%
What’s New?

“Lift Procedure”
- Close at Internal Spinter Opening
- Close Primary Opening
- Early Results
  5/6  83% Closure

Abolian A, and Kumar R, UCLA Med Ctr.

Crohn’s Anorectal Fistula

- Activity of systemic Crohn’s
- Poor wound healing
- Proctectomy
  - 12-39% (pre-remicade)
- Fistulotomy
  - Low tracts
- Setons
  - 1/3 recurrent sepsis
- Advancement flap
  - Normal rectum

Summary

- Review history and prior procedure(s)
- R/O other diagnoses
- Careful examination in OR
- Drain abscess
- Control internal opening
- Eradicate the track
- PRESERVE CONTINENCE