

# Treatment of Fistula in Ano

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# Case Presentation

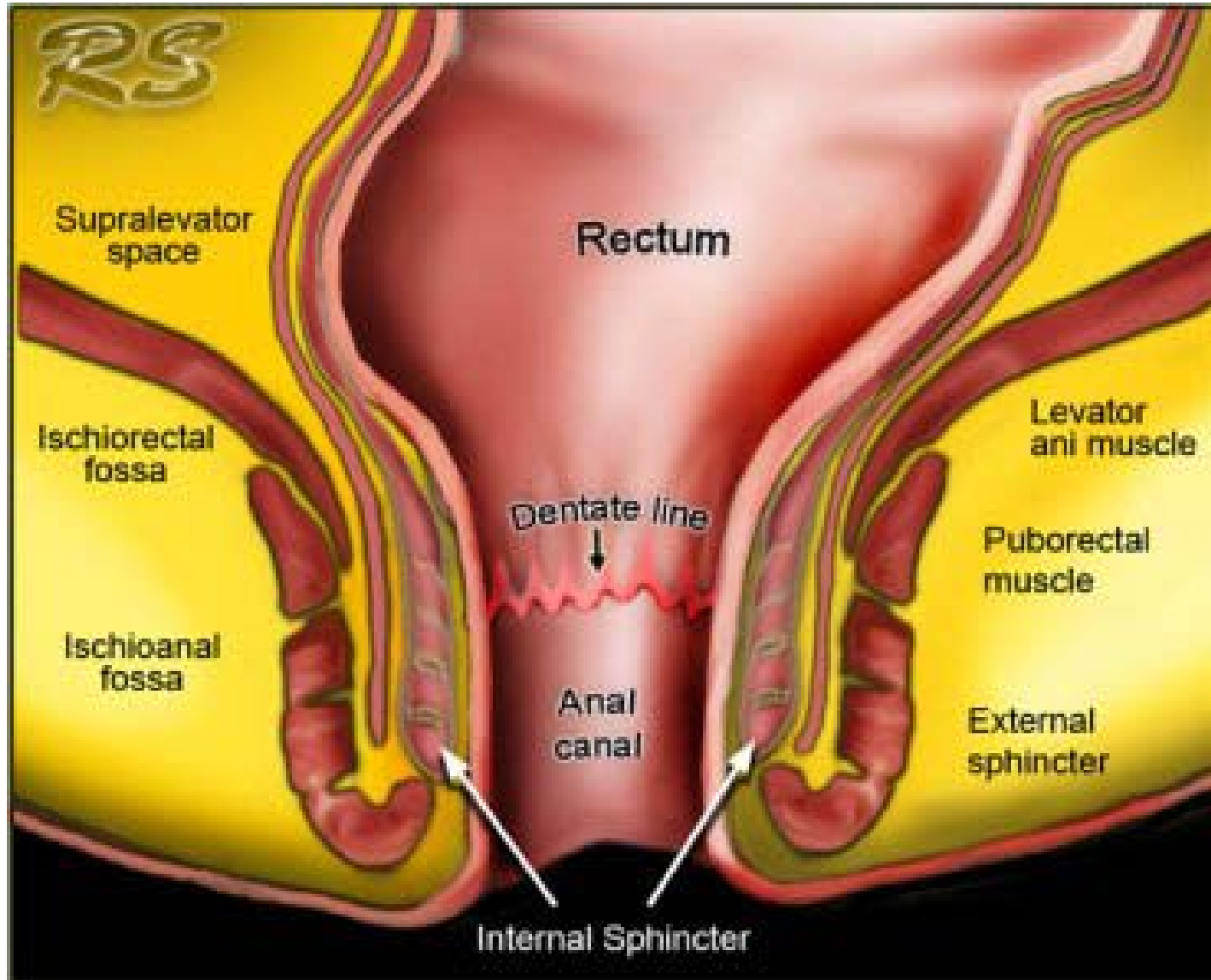
- HPI: 54 yr old male with PMH of HTN, presented to clinic with complaints of 3rd perianal abscess s/p incision and drainage
- ROS: Pain just left of the anal verge, denied fevers, drainage or incontinence

# Case Presentation

- PMH: HTN
- PSH: none
- Social: non contributory
- PE: 97.8, 76, 150/100
- Rectal exam revealed a small external opening on the left side with no evidence of ertheyma or drainage

# Case Presentation

- Procedure performed: exam under anesthesia and placement of non cutting seton
- Operative findings: posterior midline fistula with anterior and posterior fissures



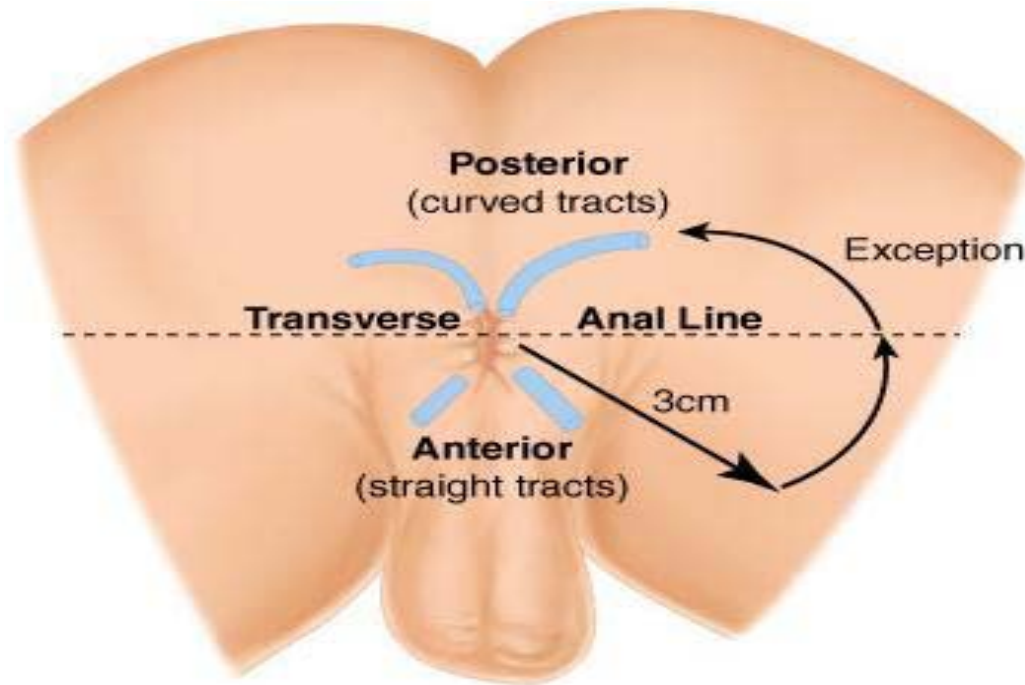
# Cryptoglandular Theory

- Most anal glands are in the posterior midline
- 8-12 anal glands that enter the canal at the dentate line
- Plugging of duct-->entry of bacteria-->amplification and expansion of perirectal spaces-->liquefaction and abscess formation

# Recurrence and development of Fistula in Ano

- Hamaliainen and Saino followed patients over a 99 month period, 37% developed a fistula and 10% developed a recurrent abscess
- Vasilevsky and Gordon reported 37% of patients developed persistent fistula and 11% developed recurrent abscess
- Schouton and van Varoonhaven in a RCT reported similar results with 40.6% of patients developing a fistula after drainage of abscess

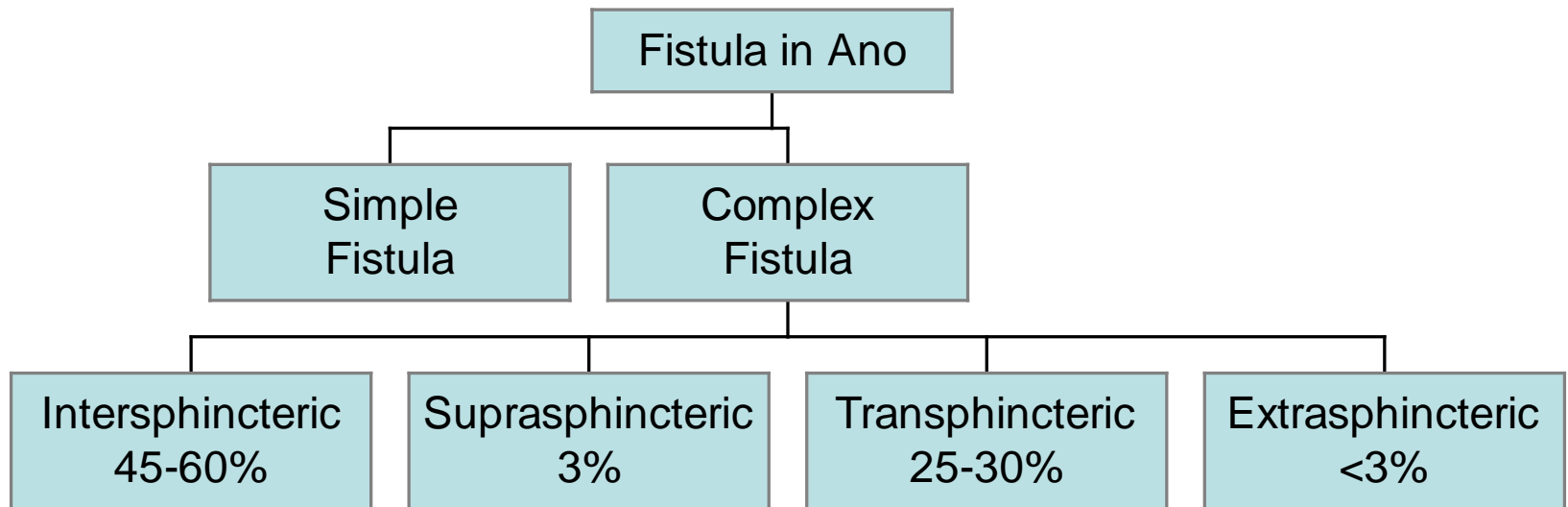
# Goodsalls Rule



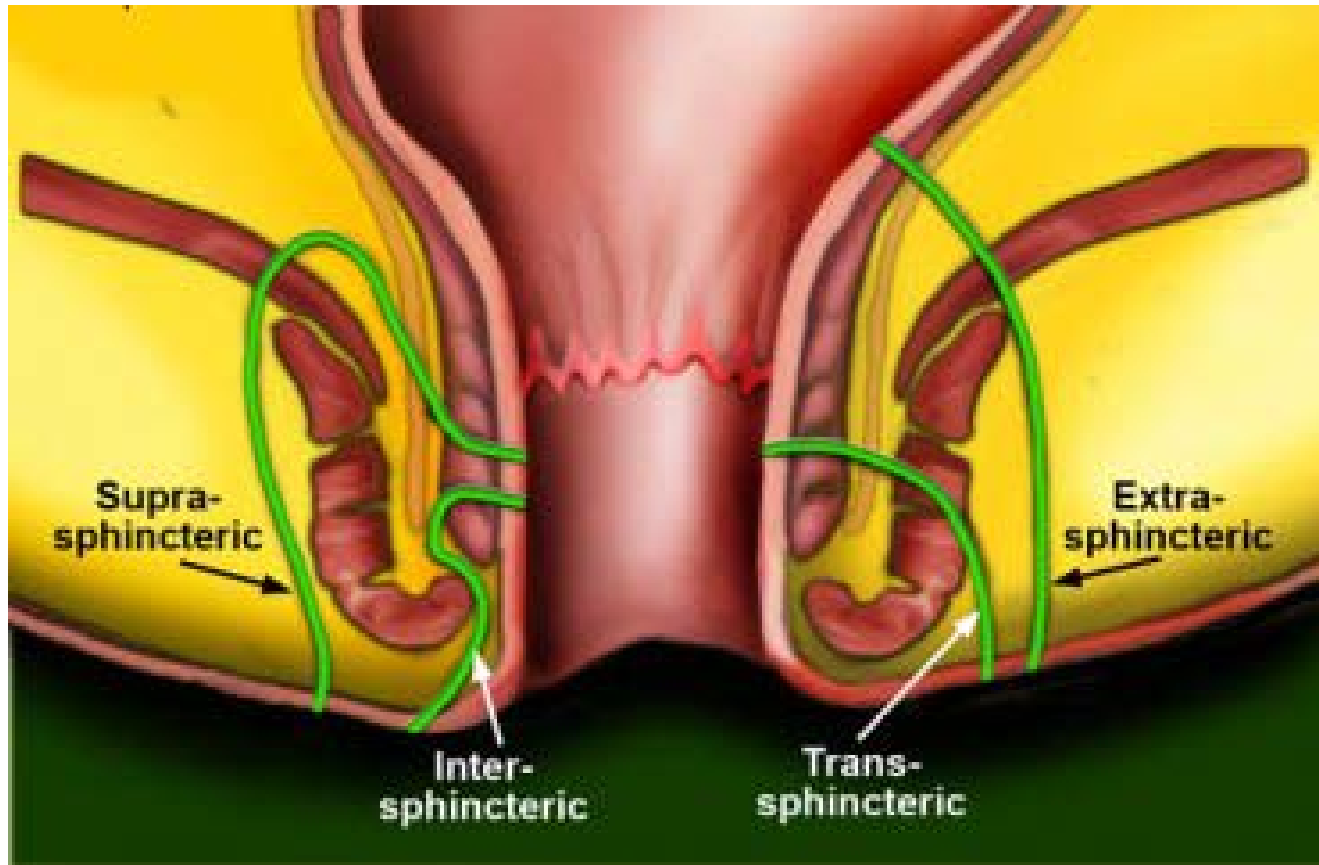
Goodsall's rule to identify the internal opening of fistulas in ano.



# Fistula Classification



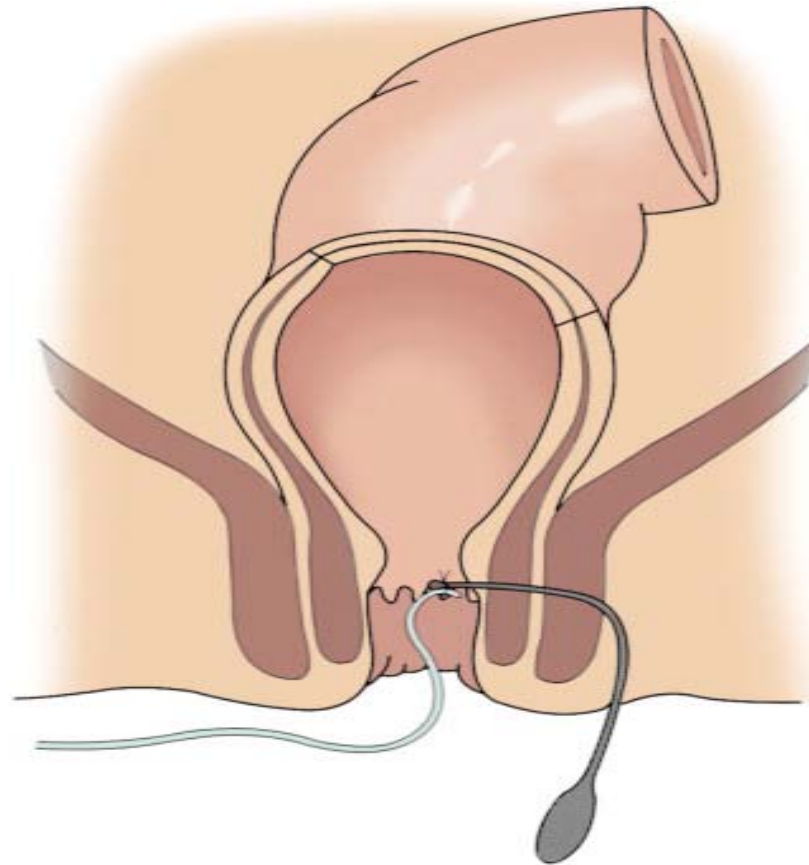
# Parks Classification of Fistula



# Complex Fistula Treatment

- Fistulotomy primary without seton or staged with a seton
- Fibrin Glue
- Anal Fistula Plug
- Endoanal/rectal advancement flap
- LIFT: ligation of intersphincteric fistula tract
- BioLIFT- LIFT with the addition of a bioprosthesis in the intersphincteric plane

# Seton Placement



# Fistulotomy

- High success rates 87-94%
- Used for intersphincteric, low transphincteric, and simple fistulas
- Alteration in continence varies 6-40%, due to differences in the definition of incontinence

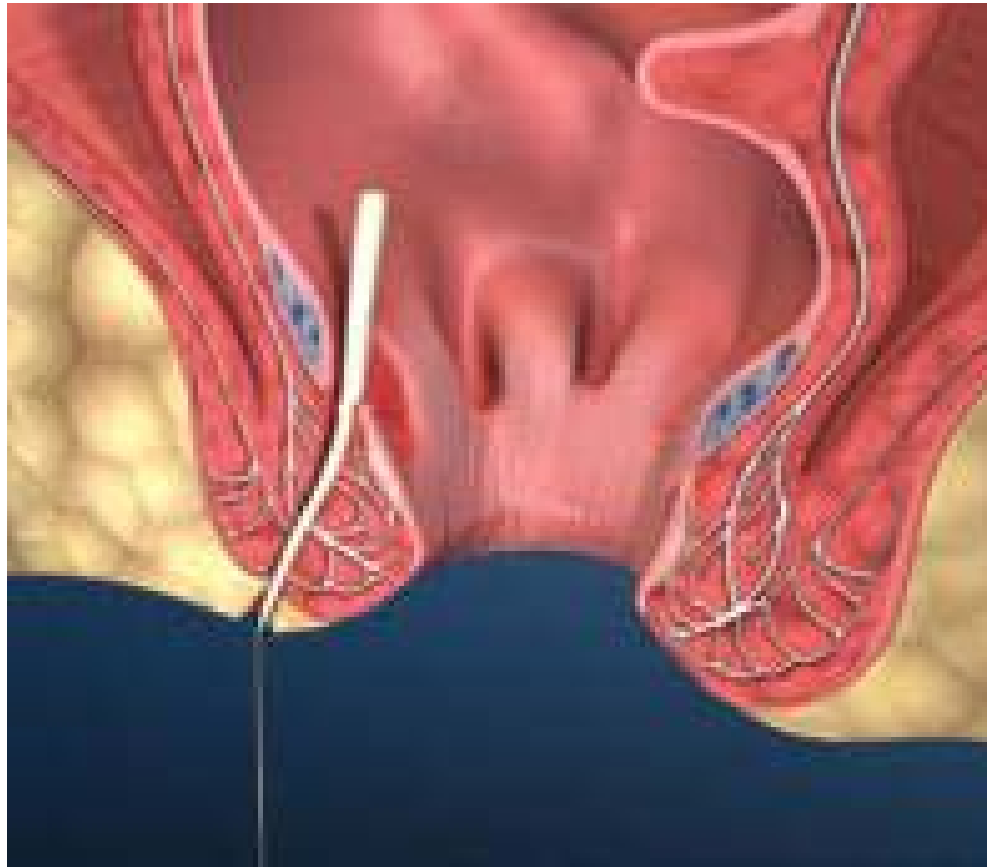
# Fibrin Glue



# Fibrin Glue

- Lowest success rates, 14-16%
- Low risk to sphincter musculature/incontinence because there is no dissection
- More currently used as an adjunct to other treatments +/- advancement flap

# Anal Fistula Plug

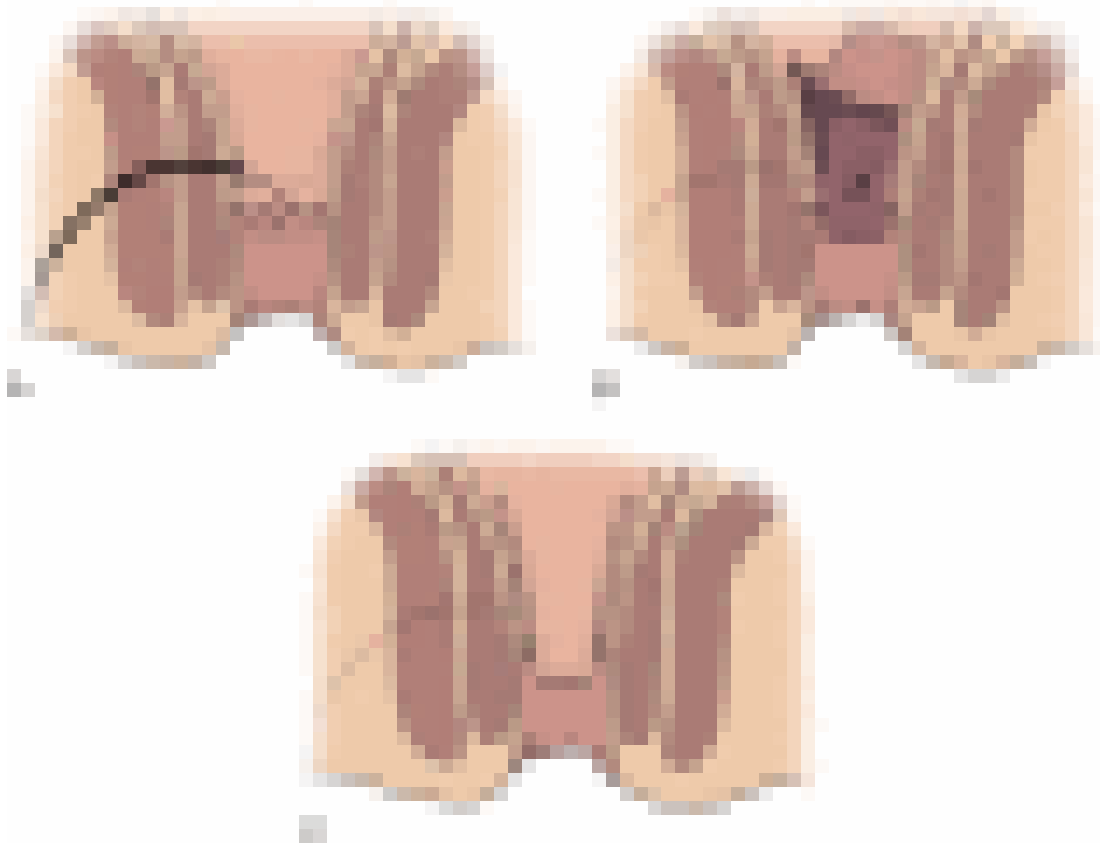




# Anal Fistula Plug

- Success rates 35-85%
- Low/No impact on sphincters, and continence used for low transphincteric fistulas
- Highest rate post-operative septic complications

# Endoanal mucosal advancement flap



# Endoanal mucosal advancement flaps

- Success rates 62-88%
- Low/no incontinence rates as this is a sphincter sparing procedure
- No randomized controlled trials comparing advancement flaps vs conventional fistulotomy

## LIFT procedure

- Success rates 57-94%
- Low incontinence rates
- Used for transphincteric fistulas, may convert hard to treat transphincteric fistula to easier to manage intersphincteric fistula
- Relatively new procedure, data from case series

# Principles of Treatment

- Treat anal sepsis
- Establish relationship of fistula tract with external and internal sphincters to maintain continence
- Provide high closure rate of fistula
- No single technique is best

Questions?

# Questions

- 3 weeks after drainage of a perianal abscess a 44 yr old fema presents with ongoing low volume serosanguinous drainage from the site of abscess incision and draiange. On examination a 3mm opening in the perianal skin is seen and a firm cord between the opening and anal canal is palpated. Which of the following is TRUE?
- A. Goodsall's rule states that an external opening posterior to a line drawn transversely across the perineum will originate from an internal opening in the posterior midline
- B. Fistulas associated with an anterior location in women or inflammatory bowel disease or those that course through significant amounts of sphincter muscle are amenable to fistulotomy
- C. One advantage of a cutting seton is that it avoids the discomfort associated with a non cutting seton
- D. The main benefit of a seton is that it serves as an anatomic guide for subsequent procedures including lateral internal sphincterotomy
- E. Although associated with high success rates, advancement flaps are also associated with high rates of incontinence

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# Questions

- Two months after drainage of a perianal abscess, a 62 yr old male presents with signs and symptoms concerning for a perianal fistula (low volume, serosanguinous drainage from the site of abscess incision and drainage). He is taken to the operating room for examination under anesthesia. While in the operating room, an external opening is easily appreciated, but an internal opening cannot be found. Which of the following is indicated?
- A. Creation of an artificial opening with a lacrimal duct probe so that the fistula can drain internally
- B. Fistulotomy
- C. Placement of a mushroom catheter and injection of methylene blue to search for the internal opening
- D. Aborting the procedure and returning to the operating room in 2-4 weeks for a repeat examination under anesthesia
- E. Fistulectomy

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# Questions

- A 41 yr old female with a history of Crohn disease presents with signs and symptoms concerning for a fistula in ano. Which of the following is TRUE regarding her condition?
- A. The internal opening of the fistulas whose external opening is in the posterior quadrant are always in the posterior midline.
- B. The most common type of fistula is intersphincteric.
- C. Excision of the entire fistula tract is necessary for cure.
- D. Fistulas associated with Crohn's disease are usually lower and less complex than spontaneous ones.
- E. Fibrin glue is the most effective means of treating most fistulas.

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