Kiss Your Hemorrhoids Goodbye: Surgical & Non-Surgical Management Options

Patricia L. Raymond MD FACG

Rx For Sanity

Norfolk, Virginia
Hemorrhoids were always with us
Medieval physicians used cautery irons to treat hemorrhoids. Others believed that simply pulling them out with their fingernails was the cure (a solution endorsed by the Greek physician, Hippocrates).
Hemorrhoids are caused by:

- Straining
  - Work strain (lifiting patients, etc.)
  - Straining while defecating
    - Chronic constipation
    - Passing hard, dry, small stools
    - Laxative abuse
- Increased in abdominal pressure
  - Pregnancy
- Being alive
The prevalence of hemorrhoids and chronic constipation. An epidemiologic study. 


- 10 million people in the United States have hemorrhoids. 
- Prevalence rate 4.4%. 
- Peaks from age 45-65 years. 
- Decrease after age 65 years. 
- Hemorrhoids before age 20 unusual. 
- Caucasian > African American. 
- Increased prevalence rates associated with higher socioeconomic status.
• Contrast hemorrhoids with the epidemiology of constipation
  > Exponential increase after age 65 years
  > More common in blacks
  > More common in families with low incomes or low social status

  — Causality between constipation and hemorrhoids questioned

What are hemorrhoids & how do we get them?
- Arise from a plexus (sometimes called a "cushion") of dilated arteriovenous channels and connective tissue
- Veins from the superior, middle, and inferior rectal vein
The Dentate Line

- External or internal based upon whether they are below or above the dentate line
  - The dentate line is a line which divides the upper 2/3 and lower 1/3 of the anal canal. Developmentally, this line represents the hindgut-proctodeum junction
- Often both types of hemorrhoids coexist

Internal hemorrhoids

• Arise from the superior hemorrhoidal cushion.
• Three primary locations
  > left lateral, right anterior, and right posterior
• Fed from the end branches of the middle and superior rectal veins
• Overlying mucosa is rectal
• Innervation is visceral

http://tophemorrhoidtreatments.com/internal-and-external-hemorrhoids
**External hemorrhoids**

- Arise from the inferior hemorrhoidal plexus
- Located beneath the dentate line
- Covered with squamous epithelium
  - Numerous somatic pain receptors.

http://proctologyspecialists.com/procedures/thrombosed-external-hemorrhoid
What aren’t hemorrhoids?
Skin tags

• Sometimes confused with external hemorrhoids.

• Associated with
  > anal fissures
  > perianal Crohn's disease
  > residual excess skin associated with prior thrombosis of external hemorrhoids

Anal fissures and fistulae


Anal fissures

http://www.chennaicolorectalclinic.com/#!anal-fissure

http://www.homeouniverse.com/category/diseases/stomach-diseases/
Rectal varices

- Hemorrhoids have direct communication with the portal system, and can also exist in close proximity to rectal varices in patients who have portal hypertension
- Hemorrhoids are not more common in patients with portal hypertension
- Rectal varices are treated with banding or TIPPS
Perianal Crohn’s disease

http://www.karelsavry.com/guide_7/clinical_signs_and_symptoms_1.html

http://learncolorectalsurgery.blogspot.com/2009/04/colon-was-fully-mobilized-and-extensive.html
Condyloma Acuminata (Anal warts)

- Human papilloma virus

http://missinglink.ucsf.edu/lm/DermatologyGlossary/condylomata_lata.html

http://ibmi3.mf.uni-lj.si/mmd/derma/eng/sz-00/sldr00047.html
Rectal Prolapse (Rectal Procidentia)

- Partial thickness (mucosal) prolapse
- Full thickness prolapse
Can you identify it?
EXTERNAL HEMORRHOIDS

http://vanithango.org/cream/do-internal-hemorrhoids-cause-stomach-pain
ANAL/RECTAL FISTULAS

http://intranet.tdmu.edu.ua/data/kafedra/internal/surgery2/classes_stud/%D0%A5i%D1%80%D1%83%D1%80%D0%B3i%D1%8F/6%20%D0%BA%D1%83%D1%80%D1%81/English/Topic%2020%20Non-neoplastic%20diseases%20of%20the%20rectum%20Hemorrhoids.%20Acute%20and%20chronic%20paraproctitis%20.htm
RECTAL PROLAPSE

PROLAPSING INTERNAL (STAGE 4) & EXTERNAL HEMORRHOIDS

PROLAPSED & STRANGULATED INTERNAL HEMORRHOIDS (GRADE 4)

RECTAL CANCER
NORMAL ANUS

http://www.gastrolab.net/g4g03.htm
RECTAL PROLAPSE

http://www.emedicinehealth.com/rectal_prolapse/page16_em.htm
INTERNAL HEMORRHOIDS
CONDYLOMA

RECTAL CANCER

http://medicalpicturesinfo.com/rectal-cancer/
RECTAL FISTULA

http://www.murraasca.com/proctology.htm
CONDYLOMA

How are hemorrhoids graded or described?
Classification of internal hemorrhoids

- Degree of prolapse from the anal canal:
  - Grade I visualized on anoscopy, and may bulge into the lumen, but do not extend below the dentate line
  - Grade II prolapse out of the anal canal with defecation or with straining, but reduce spontaneously

Prolapsed Internal Hemorrhoids

> Grade III prolapse out of the anal canal with defecation or straining, and require the patient to reduce them into their normal position.

> Grade IV hemorrhoids are irreducible and may strangulate.

http://www.uptodate.com/contents/image?imageKey=SURG%2F64871&topicKey=SURG%2F15025&rank=1~34&source=see_link&search=rectal+prolapse&utdPopup=true
No widely used classification system of external hemorrhoids exists!
iPhone Mania!
How do we treat hemorrhoids?
Hemorrhoid Advice by Anonymous

Even though it may take weeks
To heal the wound between your cheeks,
I provide this rule of thumb
To nurse your recuperating bum.

Though its been said, it bears repeating;
Nothing but canned soup for eating.
Fruit will get your bowels a-grooving
Before you know it, you’ll be up and moving
Exercise is out of the question!
Beware of any such suggestion.
No unicycles, horseback riding.
Leapfrog, bowling, or ninja fighting.

Heed my advice and don’t be foolish,
The results may be so very ghoulish.
To avoid a thrombosis so abrupt,
Keep your cool and Bottoms Up!
HEMORRHOID REMOVAL

For when Anusol just won't cut it

cSlacker.com
Conservative Management of Hemorrhoids

- Bleeding
  - Fiber
- Pruritis
  - Topical Creams
  - Hydrocortisone
  - Sitz Baths
  - (?) Fiber
- General
  - Cleansing wipes
  - NTG/Ca channel blockers
Fiber and Hemorrhoids

- Meta-analysis of seven controlled trials
  - fiber supplementation reduced bleeding (RR 0.50, 95% CI 0.28-0.68)
- Hemorrhoidal prolapse was not affected by fiber supplementation

Irritation and pruritus

• Sitz baths
  > Warm water two to three times per day
    — Effectiveness may in part be related to relaxation of the internal anal sphincter
• Fiber supplementation may relieve pruritus related to fecal soilage
  > bulking effect of fiber may reduce leakage of liquid stool
• Analgesic creams, hydrocortisone suppositories, & warm sitz baths
• Do not use creams or hydrocortisone > one week
  > Side effects may occur
    — Contact dermatitis with analgesic creams
    — Mucosal atrophy with steroid creams
Avoid Spicy Foods? Capsaicin for hemorrhoids

• No evidence that spicy foods worsen irritation and pruritus

Red hot chili pepper and hemorrhoids: the explosion of a myth: results of a prospective, randomized, placebo-controlled, crossover trial.

Witch hazel (*Hamamelis*)

- Astringent
- Various forms
  - Ointments, pads
  - Little scientific evidence, said to temporarily shrink hemorrhoids

‘Napoleon’s Haemorrhoids’, by Phil Mason, says that the French emperor was suffering from an acute attack of piles that stopped him riding his horse, and supervising the troops during the battle of Waterloo. Two days before the battle, Napoleon's doctors lost the leeches that they used to relieve his agony, and accidentally overdosed him with the painkiller laudanum. Napoleon was still suffering from the effects of the painkiller when the battle broke out.
Other Conservative Management Ideas

- Moistened hypoallergenic wipes
- Nitoglycerine ointment
  > Rectiv 0.4%
- Diltiazem/Nifedipine ointment or combined


*Topical diltiazem hydrochloride and glyceryl trinitrate in the treatment of chronic anal fissure* Jawaid M, Masood Z, Salim M

![Image of antique packaging]
You Rectum, We Fix 'Em.
Painless Hemorrhoid Treatment
Saturday Colonoscopy Appointments
TampaProctology.com 813.875.2600
Ambulatory Procedures for Internal Hemorrhoids

- Rubber band ligation
- Infrared coagulation
- Bipolar diathermy (Bicap)
- Laser photocoagulation
- Sclerotherapy
- Cryosurgery
Which ambulatory technique for internal hemorrhoids?
*Meta analysis of 18 trials*

- Surgical hemorrhoidectomy better than dilation or band ligation for preventing recurrent symptoms.
- Rubber band ligation was associated with fewer complications and pain than surgery.
- Rubber band ligation obliterated varices better than sclerotherapy.
- Patients treated with sclerotherapy or infrared coagulation were more likely to require further treatment than those with rubber-band ligation.

Based upon these findings, it was suggested that the optimal treatment for symptomatic grade I to III hemorrhoids unresponsive to conservative measures was rubber band ligation.

Complications of rubber band ligation

• Pain 8%
  > Misapplication of the band below the dentate line or spasm

• Delayed hemorrhage
  > When the rubber band dislodges, typically 2-4 days post procedure or ulceration/ mucosal sloughing at 5-7 days

• Thrombosis
  > distal hemorrhoids thrombose, leading to pain or a palpable mass.

• Infection/abscess
  > Persistent pain, fever, or foul smelling rectal drainage Sepsis is rare
Rubber band ligation of internal hemorrhoids: Less pain, shorter time off work

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Average Procedure Time</th>
<th>Average Time Off Work</th>
<th>Pain Medication Required Pre/Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRH O’Regan System</td>
<td>30 seconds – 1 minute</td>
<td>0-1 Day</td>
<td>No</td>
</tr>
<tr>
<td>Conventional Rubber Banding</td>
<td>5 – 10 minutes</td>
<td>0-3 days</td>
<td>Often Prescribed</td>
</tr>
<tr>
<td>Infrared Coagulation (IRC)</td>
<td>30 seconds – 3 minutes</td>
<td>0 – 1 day</td>
<td>Yes</td>
</tr>
<tr>
<td>Stapled Hemorrhoidectomy</td>
<td>15 – 90 minutes</td>
<td>1 – 10 days</td>
<td>Yes</td>
</tr>
<tr>
<td>Conventional Hemorrhoidectomy</td>
<td>45 – 90 minutes</td>
<td>10 – 14 days</td>
<td>Yes</td>
</tr>
</tbody>
</table>
I Want You
To Lance My Hemorrhoid
External hemorrhoids: 
*Thrombosis management—soon or not at all*

- External hemorrhoids do not usually require minimally invasive or surgical therapy
- Patients seen within 72 hours of thrombosis may benefit from surgical evacuation for pain relief
- After 48 hours, organization of the thrombus and improvement of symptoms no need for surgical evacuation
But if you need to say “YES”…

- **Initial treatment of choice in patients with**
  > symptomatic or strangulated grade IV hemorrhoids
  > symptomatic grade III hemorrhoids
  > thrombosed external hemorrhoids.

- **American Gastroenterological Association, 2004**
  > Failure of medical and nonoperative therapy
  > Symptomatic third-degree, fourth-degree, or mixed internal and external hemorrhoids
  > Symptomatic hemorrhoids in the presence of a concomitant anorectal condition that requires surgery
  > Patient preference after discussion of the treatment options with the referring physician and surgeon.
Techniques for the operative treatment of hemorrhoids

- Closed hemorrhoidectomy
- Open hemorrhoidectomy with excision and ligation
- Stapled hemorrhoidectomy
- Lateral internal sphincterotomy
Closed hemorrhoidectomy

- The most common surgery for internal hemorrhoids
- Elliptical incision is made starting on the external hemorrhoidal tissue and extending proximally across the dentate line to the superior extent of the hemorrhoidal column

- Make the ellipse relatively narrow, and to remove only the redundant anoderm and hemorrhoidal tissue, close defect with continuous absorbable suture
- Three columns treated
- 95% successful, low infection rate
You deserve a medal…

(Pain in the Ass)
Proctalgia fugax

- Intermittent, recurrent, severe, self-limited functional rectal pain
  - Pain for few seconds to two hours, asymptomatic between episodes, < 5 x per year in 50%

- 4 to 18% of population, although only 17 to 20 percent of patients report symptoms to MD
  - 58 to 84 female
  - Mean age at dx 46 - 58 years
  - NOT more common in patients with IBS
  - Diagnosis requires exclusion of other causes of rectal or anal pain

WARNING
GENERAL PAIN IN THE ASS
Proctalgia fugax

• Pathophysiology
  > Spasm of the smooth muscle of the internal anal sphincter (we think!)
  > Pudendal nerve compression or neuralgia

• Treatment (?)
  > Warm water 40 °C /104 °F as hot baths and warm water enemas
  > Topical nitroglycerin
  > Oral nifedipine or diltiazem
  > Inhaled albuterol
  > Also: Botulinum toxin injection, pudendal nerve blocks, and superior hypogastric plexus blocks
St. Fiacre
the patron saint of hemorrhoid sufferers

Also:
• gardeners
• taxi cab drivers
• venereal disease sufferers
• barrenness
• box makers
• fistula sufferers
• florists
• hosiers
• pewterers
• tile makers
• ploughboys
St. Fiacre
the patron saint of hemorrhoid suffers

- Seventh century Irish monk
- Developed hemorrhoids from digging in his garden
- Sat on a stone which gave him a miraculous cure.
  - The stone survives to this day with the imprint of his hemorrhoids and is visited by many hoping for a similar cure.
- Inflamed hemorrhoids often “St. Fiacre’s curse” in the Middle Ages.
Why didn't they call them Asteroids?
Kiss Your Hemorrhoids Goodbye: Surgical & Non-Surgical Management Options

View the presentation with animations at www.slideshare.net/patriciaraymond
“Hemorrhoids” parody by Butt Meddler (loosely to “Yesterday”)

Before today,
My anal sphincter was a happy place
It existed in a state of grace
I didn’t know there’d be hell to pay.

Suddenly, there’s a thingie hanging out of me
And the itch and pain won’t let me be
Oh hemorrhoids prolapse suddenly.

Why they had to come on my bum, I couldn’t say
Preparation H and Sitz baths are just cliché!

Hemorrhoids leave my rectum feeling so annoyed
Now some rubber bands have been deployed
Now hemorrhoids are yesterday.