



HEMORRHOIDS

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WHAT ARE THEY?

Hemorrhoids are vascular structures in the anal canal. Their physiological functions are: **1.** To help defecation reducing anal trauma; **2.** To co-operate in fecal continence.

Only in presence of symptoms they are defined as hemorrhoidal disease. More than 50% of adult population suffers or suffered from an acute hemorrhoidal attack.

Many people wait too long before seeking medical help. Modern treatments can eliminate the problem with little or no pain, especially at early stages.

WHAT IS HEMORRHOIDAL DISEASE?

Hemorrhoids are improperly described as “anal varicose veins”. Pathological hemorrhoids are vascular sinuses abnormally increased in volume containing venous and arterial blood. Hemorrhoids can protrude from the anus. Two types of hemorrhoids could be observed: internal and external ones. Internal hemorrhoids swollen inside the anus (I stage) and cause discomfort usually only during defecation: pain, bleeding and itching. They can prolapse towards the outside and return inside spontaneously (II stage) or manually (III stage). They can be very painful if it impossible to replace them into the anal canal. External hemorrhoids (IV stage) usually completely prolapsed outside the anal margin. They are very painful and more often than internal ones can worsen due to internal clots formation (hemorrhoidal thrombosis)

CAUSES

There are various causes: age, straining during defecation, extreme time seated on the toilet, constipation or diarrhea, pregnancy, obesity, hereditary factors and diet. Even depression is connected to a higher risk of hemorrhoids, as well as sedentary habits.

SYMPTOMS

As already mentioned, the following symptoms could be related to hemorrhoidal disease:

1. Bright red bleeding during the passage of stool.
2. Prolapse that could more or less easily recovered
3. Itching often with the feeling of a wet anus
4. Pain, burning sensation
5. External painful nodule(s), often onset in a very short time (few hours)

DIAGNOSIS

A simple clinical exam could diagnose internal advanced and non reducible hemorrhoids (IV stage), manually reducible ones (III stage) and thrombosed hemorrhoids. Only proctoscopy could adequately value internal piles and it could permit an accurate diagnosis in order to detect or exclude other ano-rectal diseases often connected with hemorrhoids.



IS THERE A CONNECTION WITH CANCER?

There is not a connection with cancer. However, since the same symptoms might mimic rectal or anal cancer, it is mandatory a proctological examination, better if associated to a proctoscopy or a colonoscopy in patients aged over 45 years. Any conservative self administered treatment might cause unacceptable delays for a correct diagnosis and adequate treatment.

SPECIAL CASES

- [Pregnancy](#)
- Chronic inflammatory intestinal disease

TREATMENTS

Considering that hemorrhoids are the most frequent disease seen in a proctological office, more than one hundred of treatments have been proposed. These are mainly developed focusing on the resolution of symptoms. Nonetheless their efficacy and a correct therapeutic indication still remains controversial. Moreover, in many cases, their efficacy has not been proven by randomized controlled trials. Following “narrative reviews” it is possible to assess that in the initial stages (I/II) some changes in lifestyle can be useful: e.g. a diet rich in fibers, the use of flebotonics and topical ointments. In III and IV stages along with conservative treatments surgery becomes necessary.

Appropriate medical treatments depend on the possible cause

1. In case of constipation an increase of fluids and vegetable fibers in the diet, sometimes associated to the use of laxatives, should be indicated to obtain a softer stool
2. Resolve diarrhea if present
3. Obtain a correct passage of stool avoiding straining and prolonged placement on the toilet
4. Wash with lukewarm water to reduce anal spasm and pain

In case of severe attack mostly due to hemorrhoidal thrombosis the above mentioned suggestions together with analgesic can be very useful and in 7 days the attack recovers. In case of persisting pain it is possible to have a local tiny incision to remove the clot/s. In much more severe cases it could be necessary a hospital treatment. Outpatient or inpatient treatment depends on the clinical relevance of the disease.

Hemorrhoidectomy is indicated when conservative therapy don't resolve symptoms. Many surgical procedures have been proposed to remove hemorrhoids. Generally a short hospitalization is necessary (often a day-hospital) since anesthesia is mandatory. There are several protocols to control post-surgery pain and discomfort. The use of laser knife does not guarantee a reduction of pain in comparison with traditional techniques. The new tools for radiofrequency and ultrasound coagulation reduce post-surgery pain even if not all scientific studies show a statistically relevant improvement. **Stapler prolassectomy** is successfully used in III stage hemorrhoids, while its use in other stages is still debated. **Mucoprolasectomy** is carried out in hospital with spinal anesthesia. It gives good results in the short term but recurrences are still frequent. Complications of this technique are also frequent, sometimes they are long-lasting and difficult to treat.



Another recent surgical procedure consists in the **ligation of the terminal branches of the superior hemorrhoidal artery**, guided by a doppler signal. In order to reduce prolapsing hemorrhoids a suture of the associated prolapse is performed mainly in III degree hemorrhoids, even if in literature it is described also for other stages. Treatment could be performed as a day case surgery and in local anesthesia, even if a block of the pudendal nerve or spinal anesthesia could be required. About 80% of patients do not require analgesics after surgery and complications are irrelevant for occurrence, severity and duration. Only a small percentage of patients need further treatments due to recurrences.

Criotherapy is more painful than other outpatient treatments and show a very high recurrence rate with nitrous oxide (-89), but not with liquid nitrogen (-180). Like electric shock, BICAP it is not widely used in the most important international colon-proctology centers.

References:

1. Reese GE, von Roon AC, Tekkis PP. Haemorrhoids. Clin Evid (Online). 2009; 29;2009.
2. Lee JH1, Kim HE1, Kang JH1, Shin JY1, Song YM1.1.17 to 2.25) Factors associated with hemorrhoids in Korean adults: Korean national health and nutrition examination survey. Korean J Fam Med. 2014 Sep;35(5):227-36..
3. Altomare DF, Giannini I. Pharmacological treatment of hemorrhoids: a narrative review. Expert Opin Pharmacother. 2013 Dec;14(17):2343-9
4. Shanmugam V, Thaha MA, Rabindranath KS, Campbell KL, Steele RJ, Loudon MA. Rubber band ligation versus excisional haemorrhoidectomy for haemorrhoids. Cochrane Database Syst Rev 2005; 20;(3):CD005034.
5. Jayaraman S, Colquhoun PH, Malthaner RA. Stapled versus conventional surgery for hemorrhoids. Cochrane Database Syst Rev 2006; 18;(4):CD005393.
6. Burch J, Epstein D, Baba-Akbari A, Weatherly H, Fox D, Golder S, Jayne D, Drummond M, Woolacott N. Stapled haemorrhoidectomy (haemorrhoidopexy) for the treatment of haemorrhoids: a systematic review and economic evaluation Health Technol Assess. 2008;12: 1- 193.
7. Khubchandani I, Fealk MH, Reed JF 3rd. Is there a post-PPH syndrome? Tech Coloproctol 2009;13(2):141-4.
8. Pescatori M, Gagliardi G. Postoperative complications after procedure for prolapsed hemorrhoids (PPH) and stapled transanal rectal resection (STARR) procedures. Tech Coloproctol 2008;12(1):7-19.
9. Dal Monte PP, Tagariello C, Sarago M, Giordano P, Shafi A, Cudazzo E, Franzini M. Transanal haemorrhoidal dearterialisation: nonexcisional surgery for the treatment of haemorrhoidal disease. Tech Coloproctol. 2007;11(4):333-8.
10. Bursics A, Morvay K, Kupcsulik P, Flautner L. Comparison of early and 1-year follow-up results of conventional hemorrhoidectomy and hemorrhoid artery ligation: a randomized study. Int J Colorectal Dis 2004;19:176-80.
11. Infantino A, Bellomo R, Dal Monte PP, Salafia C, Tagariello C, Tonizzo CA, Spazzafumo L, Romano G, Altomare DF. Transanal haemorrhoidal artery echodoppler ligation and anopexy (THD) is effective for II and III degree haemorrhoids: a prospective multicentric study. Colorectal Dis. 2010 Aug;12(8):804-9.
12. Infantino A1, Altomare DF, Bottini C, Bonanno M, Mancini S; THD group of the SICCR (Italian Society of Colorectal Surgery), Yalti T, Giamundo P, Hoch J, El Gaddal A, Pagano C. Prospective randomized multicentre study comparing stapler haemorrhoidopexy with Doppler-guided transanal haemorrhoid dearterialization for third-degree haemorrhoids. Colorectal Dis. 2012 Feb;14(2):205-11.
13. Aigner F, Conrad F, Haunold I, Pfeifer J, Salat A, Wunderlich M; Konsensusgruppe der Arbeitsgemeinschaft für Coloproktologie (ACP) der Österreichischen Gesellschaft für Chirurgie, Fortelny R, Fritsch H, Glöckler M, Hauser H, Heuberger A, Kar-



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ner-Hanusch J, Kopf C, Lechner P, Riss S, Roka S, Scheyer M. Consensus statement haemorrhoidal disease. *Wien Klin Wochenschr.* 2012 Mar;124(5-6):207-19.

14. Rivadeneira DE, Steele SR, Ternent C, Chalasani S, Buie WD, Rafferty JL; Standards Practice Task Force of The American Society of Colon and Rectal Surgeons. Practice parameters for the management of hemorrhoids (revised 2010). *Dis Colon Rectum.* 2011 Sep;54(9):1059-64.