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Circumferential Hemorrhoids. What is the Best Option?

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Since 10 to 20% of hemorrhoidal pathology has a surgical indication, the coloproctologist must choose the appropriate technique according to the hemorrhoidal grade, the patient's symptoms and the experience of the surgeon.[1] However, in circumferential hemorrhoids, decision making becomes more complex.

Hemorrhoidectomy with the open (Milligan and Morgan) or closed (Ferguson) technique remains the gold standard with the lowest recurrence rate.[2] But this procedure is associated with increased postoperative pain and prolonged healing time, which leads to a delay in returning to work activities. It is very important that the surgeon inquire about the symptoms that most affect the patient's quality of life,[1,2] evaluating the anatomical-functional unit of the anal canal and the degree of anoderm involvement very well in the proctological examination. If preserved, alternative treatments are a very good option for circumferential hemorrhoids. In the 1950s, Blissen described hemorrhoidal ligation with a rubber band, procedure later modified by Barron, which seeks to reduce hemorrhoidal tissue and achieve mucosal pexy through healing. It is a simple procedure, very well tolerated and with minimal complications. Thus, the Cochrane review[3] shows that rubber band ligation is the treatment of choice for grade II hemorrhoids since it has similar results to hemorrhoidectomy without its side effects, and the latter is reserved for most advanced disease or post-ligation recurrence.

Various techniques were proposed with a common principle, vascular ligation of the hemorrhoidal bundle and mucopexy. In 2007 Reis Neto[4] published his macroligature technique that allows up to 3 cm^3 of hemorrhoidal tissue to be inserted into the ligator and fixed 30 mm above the dentate line. In his retrospective study of 1634 patients with grade II and III hemorrhoids, he reports a recurrence of 4.2% with one year follow-up.

With regard to Doppler dearterialization techniques (DGHAL) and (THD), important randomized, prospective and comparative trials have been performed. In the UK the multicenter study HubBle included 350 patients with grade II and III hemorrhoids and compared HAL with rubber band ligation. Dearterialization had less recurrence after one year (30 versus 49%), and similar results regarding quality of life and continence, but was more expensive and presented greater early postoperative pain.[5]

In France, the LigaLongo study,[6] conducted in 22 centers over three years, compared DGHAL with stapled hemorrhoideopexy (PPH), randomizing 407 patients. The DGHAL did not show significant differences in morbidity at three months, but the degree of patient satisfaction was higher, as shown in other studies, although with a higher cost compared to PPH.

As is known, PPH is a technique that requires a low learning curve and has a high level of patient satisfaction.[7,8] It has the advantage of less pain in the immediate postoperative period and a fast return to work, but at the cost of a higher recurrence rate.[9] This is reflected in the UK multicenter trial (ETHoS), the most important in our opinion, which compares PPH with conventional surgery and in 777 randomized patients shows that both techniques are clinically effective but that conventional hemorrhoidectomy has superior long-term results (2-year follow-up), such as better quality of life and continence, lower cost and fewer reoperations.[10]

In our retrospective PPH series, we included 452 patients with grade IIIla (84%) and IV hemorrhoids, achieving a high patient satisfaction rate with the procedure (95%), with a low rate of complications and recurrence (3.9%) in a 12-month follow-up.[11]

Lin et al.,[12] developed partial stapled hemorrhoideopexy (CSH), as an alternative to PPH, due to the high rate of complications of the latter, such as urgency of defecation (40%) and stenosis (6%). The technique implies a mucopexy with resection of the vessels similarly to PPH, but only the compromised hemorrhoidal bundles are treated. This group compared CHS with PPH in grade III-IV hemorrhoids, randomizing 300 patients with a mean follow-up of 60 months. They concluded that this new technique is not inferior to PPH with respect to recurrence, but has significantly lower rates of postoperative pain, urgency, and rectal stenosis. This line of work is original but multicenter studies are lacking to reach stronger conclusions.

Finally, the different circumferential resection techniques (Whitehead, Buie's modification that preserves mucosal bridges at 6 and 12 o'clock and Laurence[13] in our setting) propose en bloc excision of the hemorrhoids together with the mucosa that covers them.

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This type of surgery is ideal for complicated circumferential hemorrhoids. Wolff and Culp,[14] in their series of 484 patients with 3-year follow-up, considered Whitehead an unjustly criticized technique, showing zero rates of recurrence and mucosal ectropion. However, they did not have sufficient adherence in surgeons due to the degree of technical difficulty and the associated risk of anal stenosis, incontinence and/or wet anus.

In circumferential resection, the morbidity rate is comparable to that seen with Milligan-Morgan or Ferguson hemorrhoidectomy. Quarabaki et al.,[15] in a comparative prospective series of 688 patients with a 7-year follow-up, show no recurrence but 50% more stenosis, which only required dilations with anal dilators.

We believe that future research lines should emphasize patient-oriented quality indicators (QI) (satisfaction index, quality of life, continence, inability to work, etc.). However, evidence is lacking on standardized definitions or survey methods to assess QIs.[16]

We find great heterogeneity in the design of studies that makes it difficult to reach conclusive decisions, so the surgeon's challenge lies in knowing the different alternative and/or resection techniques to apply them to each particular case, according to the anatomy of the anoderm, the impact that generates in the patient quality of life and the environment in which the professional develops.

In summary, as the best option for circumferential hemorrhoids, we suggest as a guideline what is detailed in the following Table.

Preserved anoderm	Macroligatures, Doppler dearterialization, or PPH
Little anatomo-functional deformity	PPH or hemorrhoidectomy
Fully altered anoderm	Circumferential resection techniques

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