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Variants of Modern Treatment of Patients with Chronic Hemorrhoids

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Abstract: Hemorrhoids are one of the most widespread diseases of the adult population in industrialized countries. It has been established that in people over 40 years of age, the symptoms of hemorrhoids are found in 60-70% of cases. The share of hemorrhoids, in the structure of coloproctological diseases, accounts for about 40%.In recent years, minimally invasive methods of treating hemorrhoids have already been firmly introduced into the daily practice of coloproctologists. The advantages of these methods over surgical interventions are the possibility of their use on an outpatient basis, without disability; high efficiency in the initial stages of the disease; a small number of complications.The most commonly used minimally invasive methods are:hardware ligation of hemorrhoids with latex rings, sclerotherapy, infrared photocoagulation of hemorrhoids,suture ligation of hemorrhoidal arteries under the control of dopplerometry, electrocoagulation of hemorrhoids.The indication for minimally invasive surgical interventions is uncomplicated internal hemorrhoids I - III stages.When choosing a method for treating patients with hemorrhoids, it is advisable to use a classification that divides chronic hemorrhoids into stage IV.Contraindications include: a combination of hemorrhoids with an anal fissure, rectal fistula, inflammatory diseases of the anal canal and perineum, acute hemorrhoids.Ligation of hemorrhoids with latex rings is the most frequently used technique (30-80%), and sclerotherapy, due to the frequent development of complications (10-45%), is used less and less. Other methods of minimally invasive treatment are used in less than 5% of cases.

Keywords: Hemorrhoids, Variants, Modern, Treatment.

Introduction

Hemorrhoids are one of the most widespread diseases of the adult population in industrialized countries. It has been established that in people over 40 years of age, the symptoms of hemorrhoids are found in 60-70% of cases. The share of hemorrhoids, in the structure of coloproctological diseases, accounts for about 40%. In recent years, minimally invasive methods of treating hemorrhoids have already been firmly introduced into the daily practice of coloproctologists. The advantages of these methods over surgical interventions are the possibility of their use on an outpatient basis, without disability; high efficiency in the initial stages of the disease; a small number of complications.

The most commonly used minimally invasive methods are:

Hardware ligation of hemorrhoids with latex rings,
- Sclerotherapy,
- İnfrared photocoagulation of hemorrhoids,
- Suture ligation of hemorrhoidal arteries under the control of dopplerometry,
- Electrocoagulation of hemorrhoids.

The indication for minimally invasive surgical interventions is uncomplicated internal hemorrhoids I - III stages. When choosing a method for treating patients with hemorrhoids, it is advisable to use a classification that divides chronic hemorrhoids into stage IV.

I. St. Isolation of scarlet blood from the anus without prolapse of hemorrhoids.

II. St. Prolapse of hemorrhoids with self-reduction into the anal canal (with or without bleeding).
III. St. Periodic prolapse of hemorrhoids and the need for manual reduction into the anal canal (with or without bleeding).
IV. St. Constant prolapse of hemorrhoids along with the rectal mucous, the impossibility of their reduction into the anal canal using manual tools (with or without bleeding).
Contraindications include: a combination of hemorrhoids with an anal fissure, rectal fistula, inflammatory diseases of the anal canal and perineum, acute hemorrhoids.

Method

Ligation of hemorrhoids with latex rings is the most frequently used technique (35-80%), and sclerotherapy, due to the frequent development of complications (10-45%), is used less and less. Other methods of minimally invasive treatment are used in less than 5% of cases. For the first time he developed and used the Blaisdell instrument for applying circular latex ligature on the leg of the hemorrhoidal node Blaisdell in 1954. For the first time he developed and used the Blaisdell instrument for applying circular latex ligature on the leg of the hemorrhoidal node Blaisdell in 1954. Subsequently, other, more advanced ligator models were developed.The use of this method is indicated for internal hemorrhoids II, sometimes III century.

Contraindications for ligation of hemorrhoids are: Combination of internal hemorrhoids with anal fissure and rectal fistula; acute hemorrhoids; inflammatory diseases of the anal canal; anticoagulant treatment.Direct ligation (clamping) of hemorrhoids occurs using a latex ring with an inner diameter of 1 mm, which has good elasticity and provides uniform, constant compression of tissues. Rejection of the hemorrhoid together with the ligature occurs 5 to 9 days after the manipulation. During this period, as a rule, there is a slight discharge of scarlet blood from the anal canal, which does not require the appointment of medications, since it is stopped on its own. In place of the torn off hemorrhoid, a connective tissue scar is formed. There are two main methods for ligating hemorrhoids. The first is based on the retraction of the cavernous tissue into the sleeve of a mechanical ligator using a special soft clamp, after which one or two ligatures are dropped from the instrument onto the leg of the hemorrhoid. The ring should squeeze only the leg of the node, not grasping the tissues located below the anorectal line.

The essence of the second technique is the use of a vacuum ligator, which is connected to the suction. The working part of the instrument should be tightly pressed against the hemorrhoid. After switching on the suction, negative pressure is created in the cylinder of the device, and the assembly is gradually drawn into the ligator sleeve. When a pressure of 0.7 - 0.8 atmospheres is reached, two latex rings are dropped from the instrument onto the leg of the hemorrhoid. During the first session, one or two hemorrhoids are ligated. The next stage of treatment is prescribed no earlier than 15 days later.With proper adherence to the technique, the patient should not experience severe pain. After manipulation, slight soreness, a feeling of pressure, a feeling of a foreign body in the rectum, tenesmus, which can persist for 1 to 2 days, may appear. These sensations are stopped by taking non-narcotic analgesics.

Complications of ligation of hemorrhoids are: pain syndrome (observed if the manipulation is performed incorrectly), thrombosis of external hemorrhoids (occurs in 2-3% of patients), bleeding (observed in 1% of patients). The effectiveness of the technique is over 80%. Suture ligation of hemorrhoidal arteries under the control of ultrasound Doppler. A relatively new minimally invasive technique, which has not yet become widespread in our service market, is suture ligation of hemorrhoidal arteries under the control of Doppler ultrasound. This method attracts by the ease of implementation and targeted impact on the etiological factor in the development of hemorrhoids.

The method is based on the identification of hemorrhoidal arteries using ultrasound (US) Dopplerometry, followed by suturing and ligating them with a regular thread. This method was developed and proposed by the Japanese surgeon Morigana (1996). For diagnostic dopplerometry, an ultrasonic surgical device with a sound transducer and an anoscope with an ultrasonic sensor mounted in it are used. After installing this sensor above the hemorrhoidal artery, a light and sound signal is heard on the device. Through the incisure in the anoscope, over the internal hemorrhoidal node, the distal branch of the hemorrhoidal artery is sutured and ligated with an eight-shaped suture. The criterion for correct ligation of the artery is the disappearance of sound and light signals. In the same way, hemorrhoidal arteries are ligated along the entire circumference of the rectum. This leads to the interruption of the excess blood supply to the internal hemorrhoids and their fixation in the anal canal. This technique is most effective in stage I-III hemorrhoids.Contraindications are external hemorrhoids,

thrombosis of hemorrhoids, inflammatory diseases of the anal canal, combination with paraproctitis and anal fissure.

A small number of complications include a short-term urinary retention, a feeling of discomfort in the anal canal for 2-3 days after the procedure. However, it should be remembered that with excessive tightening of the ligature, the hemorrhoidal artery may erupt with the development of massive arterial bleeding. To prevent delayed arterial bleeding, it is advisable to suture no more than 2 hemorrhoidal arteries in one session. Subsequent sessions are held 2 weeks after the first procedure. Suture ligation of hemorrhoidal arteries under the control of ultrasound dopplerometry may be a promising minimally invasive method for treating hemorrhoids. However, to assess the effectiveness of this method, as well as other techniques, it is necessary to study the long-term results of treatment.

Surgery: At present in the world, the most common method of treating hemorrhoids is hemorrhoidectomy. Most coloproctologists and surgeons in our country use a technique aimed at excision of the main collectors of cavernous tissue, proposed by Milligan and Morgan (1937). This operation is used in two modifications. Some doctors use closed hemorrhoidectomy, when after excision of the hemorrhoid, stitching and ligation of the vascular pedicle, the mucous membrane is sutured tightly. Other coloproctologies use an open technique, without restoring the integrity of the rectal mucosa, leaving a whole mucocutaneous tissue strip between the excised hemorrhoids. Each modification has its own advantages and disadvantages. In connection with the development of new technologies and the development of modern devices, they began to be used when performing hemorrhoidectomy, in order to reduce the number of postoperative complications and shorten the rehabilitation period for patients after the operation. The most commonly used are the ultrasonic harmonic scalpel, the LigaSure electrothermal system, and the radio wave scalpel. In recent years, the method of circular resection of a portion of the mucous-submucosal layer of the distal rectum using a circular stapler (Longo's method) has become widespread.

Designed for bipolar electrocautery and vessel transection, the LigaSure electrothermal system delivers controlled energy to the clamping jaws. As a result, collagen and elastin are denatured in the tissues with the formation of a zone of coagulation necrosis. In addition, the tissue is mechanically squeezed with a clamp, to which an electric current is dosed. The strength of the affected area, consisting of partially denatured protein, is comparable to the strength of the sewn fabric. In this regard, there is no need for isolation and additional ligation of the vascular pedicle of the hemorrhoid. The whole process takes about 5 seconds. The device allows to coagulate vessels up to 7mm in diameter. The depth of thermal effect on the fabric, according to the characteristics, is 2mm. The LigaSure electrothermal system allows hemorrhoidectomy to be performed virtually bloodless without the use of suture material. At the same time, the operation time is significantly reduced. However, in some patients, in the immediate postoperative period, a rather intense pain reaction develops, which may be associated with a deep thermal effect on the tissues of the anal canal. In this regard, this device, in our opinion, is most expedient to use for hemorrhoidectomy of large hemorrhoids.

Results and Discussion

The modern possibilities of surgical treatment of patients with chronic hemorrhoids are significant. The arsenal of methods for influencing this common disease is great. It is impossible to adapt any one method of treatment available in the clinic to all stages of hemorrhoids. It is necessary to skillfully determine the indications for treatment and, depending on the stage of the disease, choose the most appropriate method. It should be remembered that minimally invasive methods of treatment, which patients readily agree to, especially those used on an outpatient basis, are most effective in the initial stages of hemorrhoids. With an increase in the staging of the disease, as well as with a combination of hemorrhoids with other diseases of the anal canal and pararectal tissue, surgical treatment is indicated.

The accumulated personal experience of using various minimally invasive techniques, observation of patients and analysis of long-term results of treatment of such patients showed that these techniques are most effective in the initial stages of hemorrhoids. At IV and III stages of the disease, it is advisable to use an operative method of treatment. Minimally invasive techniques in late stages of hemorrhoids can be used to stop hemorrhoidal bleeding, which can be the first stage of further radical treatment of such patients, as well as in elderly, somatically burdened patients with a palliative purpose. In our opinion, no more than 10-15% of patients diagnosed with chronic hemorrhoids can be radically cured using minimally invasive methods. However, a combination of different methods allows you to expand the indications for their use. Undoubtedly, the positive side of minimally invasive techniques is the ease of use, a small number of complications, low trauma, good

tolerability of the procedure, the possibility of using them on an outpatient basis, which is economically beneficial in modern conditions of insurance medicine.

Conclusion

In our opinion, no more than 10-15% of patients diagnosed with chronic hemorrhoids can be radically cured using minimally invasive methods. However, a combination of different methods allows you to expand the indications for their use. Undoubtedly, the positive side of minimally invasive techniques is the ease of use, a small number of complications, low trauma, good tolerance of the procedure, the possibility of using them on an outpatient basis, which is economically beneficial in modern conditions of insurance medicine.

Recommendations

It is recommended to use the available data in the treatment program in patients with chronic hemorrhoids.

Scientific Ethics Declaration

The author declares that the scientific ethical and legal responsibility of this article published in EPHELS journal belongs to the author.

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References

Knorring, G.Y.(2017). Hemorrhoids a review of clinical studies. *Doctor. Ru, 2*(131), 63–68.

Lorenc Z., & Gokce, O. (2016). Tribenoside and lidocaine in the local treatment of hemorrhoids: an overview of clinical evidence. *European Review for Medical and Pharmacological, 20*(12), 2742-2751.

Mamchur V., & Sulyma V. (2021). The application of tribenoside with lidocaine (Procto-Glyvenol®) in the treatment of patients with chronic hemorrhoids. Review of research results. *Surgery Eastern Europe.103,* 423-433.

Sulyma V., Malinovskyj S., & Yarotskyj G. (2019). Development of anal stricture after hemorrhoidectomy depending on the method of anesthesia during operation. *Colorectal Disease, 21*(3), 127.

Sulyma, V., & Sergij Malinovskyj. (2021). Tribenoside with Lidocaine in the treatment of patients with chronic hemorrhoids. *7th International Istanbul Scientific Research Congress Proceedings Book* ,(pp 195-197)

Sulyma, V., & Yuschchenko, I. (2022). Collection of theses of the international scientific and practical forum. *Novitni Methods of Treatment in Surgery*,20.

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