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PROBLEMS OF TREATMENT OF CHRONIC HEMORRHOIDS

ABSTRACT

In the contemporary world, in the incidence frequency among coloproctological diseases chronic hemorrhoids takes the first place. The problem of choice of surgical treatment of chronic hemorrhoids keeps its actuality even today. The acuteness of this problem is primarily due to the imperfection of the applicable current methods of treatment and the frequency of complications in the early postoperative period, as well as in the remote terms after hemorrhoidectomy. In light of the development of in-patient replacing forms there is an increasing interest in providing minimally invasive surgical treatment at the proctologic diseases in outpatient conditions.

All above mentioned testifies to relevance of a solution of the problem of optimization of tactics of treatment of patients with chronic hemorrhoids and need of its further studying.

Keywords: chronic hemorrhoids, hemorroidectomy, minimally invasive methods of treatment, latex band ligation of the hemorrhoidal clusters, surgical methods of hemorrhoids treatment.

INTRODUCTION

Problems of treatment of chronic hemorrhoids

In the contemporary world, in the incidence frequency among coloproctological diseases chronic hemorrhoids takes the first place. Abundance makes it 140-160 people on 1000 adult populations [4,10]. The specific gravity in structure of coloproctological diseases fluctuates from 34 to 41%. Sharpness of this problem is caused, first of all by imperfection of methods of treatment applied now and frequency of complications in the early postoperative period, and also in the remote terms after a hemorroidectomy. Despite perfecting of methods of surgical treatment of hemorrhoids, in process of accumulation of clinical experience and studying of the remote results there are messages on complications and unsatisfactory results of a hemorroidectomy [7,15]. 34-41% of patients after a hemorroidectomy have an expressed pain syndrome, at 2% bleeding, at 15-26% - a dysuria. At 2% of the operated pyoinflammatory complications develop. In the remote terms after operation at 2% of patients strictures of the proctal channel are formed, at 1% of patients the failure of a proctal sphincter [7] comes to light. The high percent of recurrence and postoperative complications after a hemorroidectomy dictates need of more careful choice of indications to a method of expeditious treatment. So according to Rivkin and L.L.Kapullera (2000) radical hemorroidectomy is shown no more than 20% of patients, and according to some authors [19] only 6% of patients.

In recent years there is an interest to rendering the operational help of proctologic diseases in out-patient and polyclinic conditions. It is promoted by the fissile development of the modern low-

invasive methods of treatment thanks to which realization of a radical hemorroidectomy is shown now no more than in 30% of cases [14]. According to many authors, treatment of patients in out-patient conditions allows to reduce considerably the cost of a medical care, financial costs of out-patient operation average 30% of cost of hospitalization. It should be noted that minimally invasive methods of treatment of hemorrhoids are rather prime performed by, are economic, do not demand hospitalization of the patient, do not lead to the long terms of stay on a leaf of disability and the long-lived rehabilitation of the patient, are not interfaced to risk of anesthesia [23]. However, algorithms of treatment of patients with hemorrhoids still are not developed. There are no legible criteria for realization of low-invasive operations depending on degree and weight of hemorrhoids. Searching of the most efficient, less morbid and economic efficient low-invasive method of treatment of hemorrhoids in out-patient conditions is still conducted.

Hemorrhoids pathogenesis

The term "hemorrhoids" is understood as pathological increase in the external and internal hemorrhoidal clusters, being accompanied by periodic selection of scarlet blood from internal clusters and their loss from the proctal channel.

Now there is a set of theories explaining a hemorrhoids pathogenesis: infectious, constitutional, mechanical, endocrine, toxic, and any of them cannot authentically explain loss of internal clusters and selection from them scarlet blood. Long time a larger role in an etiology of hemorrhoids was given to increase of venous pressure which led to developments of stagnation in veins of a rectum [1,13]. According to L.A.Blagodarnogo (2011), in a hemorrhoids pathogenesis two major factors have leading value: vascular and musculodystrophic.

In the course of a normal embryogenesis cavernous educations which are a basis of hemorrhoidal clusters, in a submucous layer of distal department of a rectum above the gear line (internal hemorrhoidal clusters) and under perineum skin (external clusters) are put. External hemorrhoidal clusters settle down under anodermy and are covered with a multilayer flat epithelium, and internal hemorrhoidal clusters are covered with a cylindrical epithelium. The reason of increase in hemorrhoidal clusters is blood circulation violation in cavernous educations [5]. In turn, the increase in cavernous little bodies (the sizes of hemorrhoidal knot) leads to development of dystrophic processes in a common longitudinal muscle of a submucous layer and Parks's team therefore there is their shift in the distal direction and loss from the proctal channel [6].

W.Thomson in 1975, having studied structure of an unstriated muscle of a submucous layer of the anal channel, described by Treyts in 1853, proves its role of laying (pillow) on an anus circle. It settles down not a continuous ring, and forms three main "pillows" one of which borrows left-hand lateral, the second - right forward, the third - right back situation, according to an arrangement

of internal hemorrhoidal clusters. Internal hemorrhoidal clusters from the external are divided by the anorectal line. Above this line the cylindrical epithelium which does not have painful receptors [18] settles down. More distal than this line in a flat epithelium and under it the mass of painful and sensing receptors settles down. It is extremely important to mean this circumstance at a choice of a method of treatment of hemorrhoids. In communications by feature of an innervation of the proctal channel, realization of low-invasive techniques at pathological changes of internal clusters, according to many scientists, practically does not demand introduction of anesthetizing preparations [2,7,10].

It should be noted also an essential role of internal hemorrhoidal "pillows" in potting of the proctal channel and keeping of intestinal contents therefore coloproctology pay attention to need of realization of less traumatic methods of treatment for the purpose of preservation of cavernous educations [4,20].

Clinical picture

The main symptoms of chronic hemorrhoids are loss of hemorrhoidal clusters and the remittent bleeding bound, as a rule, to the act of a defecation [4,20]. Thus bleeding can be in the form of often dripping drops, existence of blood strips on a feces, or slightly noticeable on underwear or on toilet paper. The second for the frequency of emergence by a symptom is loss of hemorrhoidal clusters. The N of Gudgeon (1986) revealed distinction in loss of hemorrhoidal clusters from the proctal channel. Thus can drop out not only three knots, but also one or two. There is a direct dependence between the disease duration, its stage and frequency of loss [19]. Much less often at chronic hemorrhoids such symptoms, as a dyscomfort, pain, a proctal itch and mucilage selection from an anus can meet. More often their emergence is bound to the long-lived course of a disease. Practically at all patients with hemorrhoids the disease has wavy character with the periods of aggravations.

Basis for manifestation of sharp process is thrombosis of hemorrhoidal clusters. At sharp hemorrhoids emergence of the expressed pain syndrome, thrombosis of hemorrhoidal clusters and emergence of inflammatory process is characteristic. Sharp process is most often accompanied by bleeding from internal hemorrhoidal clusters. The subsequent aggravations can become frequent, after an error in a diet or an exercise stress.

The most frequent reason of the primary address to the doctor is blood selection from an anus. At 80% of patients selection of scarlet blood is noted during a defecation or right after it. 19% have a blood selection from an anus irrespective of a defecation. At part of patients continuous selection of blood leads to anemia development. Scarlet blood without clots is most often emitted, and is much more rare – dark blood with clots [15].

Character of bleeding can be the most various – from hardly noticeable traces of blood before the expiration by its strong stream at the time of tension of a prelum abdominale and increase of intra belly pressure at a defecation. Thus it can be lost to 80-100 and more milliliters of blood daily. Bleeding develops usually together with the defecation beginning. During the periods decline and the complete elimination inflammatory the phenomena intensity of bleedings decreases. Under the influence of treatment or self-contained they stop, sometimes on the long term. Plentiful hemorrhages lead to chronic anemia. At progressively accruing anemia the index of hemoglobin can reach 40-45 g/l. This complication can be menacing for life of the patient and demands urgent treatment.

The pain syndrome is not the reference sign for chronic hemorrhoids [14]. Pains quickly accrue if hemorrhoids are supplemented by an anal fissure with the reference for it a sphincter spasm. They amplify and become the extremely painful especially during the periods of an aggravation of inflammatory process with infringement of the increased, edematous internal hemorrhoidal clusters. According to various authors of [4,7,17] pains arose generally at development of thrombosis of hemorrhoidal clusters and were one of symptoms disturbing the patient in 96% of cases of a sharp course of a disease. In incipient states at a chronic current the pain syndrome can be absent. But sometimes and at far come disease there is no pain syndrome even at is long dropping-out hemorrhoidal clusters.

In process of development of a disease there are expressed hemorrhoidal clusters. Internal hemorrhoidal clusters are usually shown before external that is bound to friability of a submucous layer and development of dystrophic processes in the holding device of internal hemorrhoidal clusters and increase in the sizes of clusters. Clinically these clusters prove bleeding earlier, than external.

Hemorrhoids classification

Classification of hemorrhoids has more than thousand-year history. During the different periods, almost each author describing hemorrhoids, created the classification and hemorrhoids systematization by forms, stages, complications and a treatment method.

According to Timokhin of Yu.V (1965), Amineva of A.M (1971), on an etiology hemorrhoids can be congenital or acquired. The last, authors divided on primary and symptomatic. On localization, authors divided hemorrhoids on internal and external. This type of classification recognized the majority of coloproctology. In particular, it is described in Braytsev's monographs of B.P (1952), Rykhizh of A.H (1956) and Bacon H. (1949).

Opell V.A (1903) allocated three stages of hemorrhoids depending on expressiveness of loss of clusters. The first stage – clusters drop out of the proctal channel and are set self-contained. The

second stage – dropping-out clusters self-contained are not set, the patient is compelled to render a manual grant at reposition of clusters. The third stage – the set clusters do not keep in the proctal channel and constantly drop out.

V. R. Braytsev's classification (1952) also was based on extent of loss of hemorrhoidal clusters, but included four stages. Thus internal hemorrhoids without loss of clusters did not join in both classifications.

The modern classification of hemorrhoids offered by domestic authors reflects the course of a disease on chronic and sharp. In a form shares on: internal, external, combined. The chronic course of hemorrhoids is subdivided into four stages. Not dropping out hemorrhoidal clusters belong to the first stage edematous, sometimes bleeding, but. To the second stage — dropping-out hemorrhoidal clusters with possibility of self-contained reposition to the proctal canal (with bleeding or without it). Feature of the third stage is loss of hemorrhoidal clusters with need of instrumental and their manual reposition to the proctal canal (with bleeding or without it). To the fourth stage refer continuous loss of clusters (with bleeding or without it) [10,12]. The course of sharp hemorrhoids is subdivided into three degrees: the first degree - thrombosis of external and internal hemorrhoidal clusters without emergence of inflammatory reaction; the second - thrombosis of hemorrhoidal clusters with their inflammation; the third — thrombosis of hemorrhoidal clusters with transition of inflammatory process to a hypodermic fat, perianal hypostasis and emergence of a necrosis mucous clusters.

This classification corresponds to a hemorrhoids pathogenesis, is sufficient is convenient and gives the chance in practical work, depending on a stage of a disease and degree of expressiveness of a symptomatology, objective to define indications as, for low-invasive, and for surgical methods of treatment [6,17].

Now medical practice knows a set of ways of treatment of hemorrhoids which make three larger groups: conservative, low-invasive and surgical methods of treatment.

Conservative treatment

Conservative treatment is shown first of all at sharp hemorrhoids, incipient states of a chronic current, and as a preventive measure of exacerbations of a disease. First of all the factors promoting a course of a disease [3] recommend to exclude the majority of authors. The major action in prophylaxis and treatment of hemorrhoids is keeping of a mode of work and rest, restriction of "a professional harmfulness". Secondly - a mode and quality of a delivery (dietetics). The use of products with the raised maintenance of a fat normalizes activity of a digestive tube. In the third - aperient tools [18]. In the fourth - treatment, with application of preparations of local action directed on efficient removal of the main symptoms.

The indications for medicamentous treatment are incipient states of chronic hemorrhoids and the sharp course of a disease. This type of therapy consists of common and local treatment. Certainly, at sharp hemorrhoids conservative treatment is shown. However it should be noted that its prophylaxis first of all consists in normalization of activity of a digestive tube, treatment of a lock which meets more than at 75% of the patients having hemorrhoids. Ferment preparations, the tools influencing flora and a peristalsis of thin and a colon, hydrophilic colloids (food fibers) against the regular and sufficient consumption of liquid are appointed. For this purpose in our country traditionally apply wheat bran, sea cabbage and a flax seed in their natural look or in the form of pharmacological preparations [10]

Local treatment

Local treatment is directed on elimination of a pain syndrome, thrombosis or an inflammation of hemorrhoidal clusters, and also bleedings. At a choice of local treatment of sharp hemorrhoids it is necessary to consider a prevailation of one of symptoms – pain, thrombosis, abundance of inflammatory process and existence of the destructive component. At bleeding it is necessary to estimate legiblly the hemorrhage size, its activity and expressiveness of posthemorrhagic anemia.

The pain syndrome at hemorrhoids is usually caused by infringement of the thrombosed hemorrhoidal knot or emergence of a sharp proctal crack. Most often in the mechanism of its education the sphincterismus bound to inflammatory process in hemorrhoidal knot lies. Therefore for elimination of a pain syndrome application of not narcotic analgetics and the local combined anesthetizing preparations is shown. Such preparations are applied to local therapy of hemorrhoids, as aurobin, ultraproct, proctoglivenol, nephluan, etc. The thrombosis of hemorrhoidal clusters complicated by their inflammation – the indication to application of anticoagulants of local action in a look suppository and the combined preparations containing anesthetizing, thrombolytic and antiinflammatory components. This group treat proctosedyl and hepatrombin H. Hemorrhoidal thrombosis is also shown application of anticoagulants of local action. Heparini and troksevazini ointments belong to this group of preparations. In 70–80% of supervision of fibrinferments of hemorrhoidal clusters becomes complicated their inflammation with transition to a hypodermic fat and perianal area. Thus the above preparations are applied in combination with the water-soluble ointments possessing potent antiinflammatory action. Them treat levosin, levomecol, mafenide [10].

Incessant bleeding within one hour is a sign of sharp process and it is possible to apply the suppositories containing an adrenaline to its elimination. In addition, apply such local haemo static materials, as Adroxonum, beriplast, tahocomb, spongostan, consisting of a fibrinogen and Thrombinum. At introduction to the proctal canal they resolve, forming a fibrinous film [4].

Common treatment

Basis of common treatment of hemorrhoids is application of flebotropny preparations. At the expense of application of pathogenesis reasonable therapy the medical effect (a bleeding stop, decrease of expressiveness of an inflammatory and pain reaction, disolution of blood clots in cavernous little bodies etc.) is reached. Application of these or those preparations has to be dictated by degree of expressiveness of this or that symptom [10] Single group of the preparations, allowing to solve primal problems of a systemic pharmacotherapy of hemorrhoids by impact on key pathogenetic mechanisms of development and disease progressing, flebotropny preparations are. Among flebotonik the greatest distribution gained derivativ flavonoids – diosmin. At treatment of hemorrhoids micronized forms diosmin are used. Thus, the amount of the active material adjoining to a surface of a mucosa of a gastrointestinal path, increases by 4,5 times, leading to increase of bioavailability of a preparation by 4 times.

It should be noted that despite application of the modern efficient preparations, the conservative treatment which is carried out generally at a sharp phase of a disease, is only palliative measure and gives a short-term positive effect. Renewing of a lock, error in a diet, as a rule, lead increase in exercise stresses to the next aggravation that demands repeated conservative treatment.

Therefore at an inefficiency of this type of treatment, especially in late stages of a disease, it is necessary to carry out the combined treatment including conservative and low-invasive methods or conservative and traditional surgical methods.

Low-invasive surgical methods of treatment of hemorrhoids

Due to the development of new technologies, creation of efficient sclerosing preparations, devices and devices, the increasing distribution is gained by highly efficient methods of low-invasive treatment of the hemorrhoids, applied most often, in out-patient and polyclinic practice [11]. The infrared photocoagulation, sclerotherapy, ligation of hemorrhoidal clusters belong to low-invasive methods of treatment by latex rings, an electrocoagulation, a sutural ligation of hemorrhoidal vessels under monitoring of an ultrasonic Doppler velocimetry, removal of hemorrhoidal clusters by the radiosurgery device [12]. In our country low-invasive methods of treatment are used only in 3% of cases [11] though in recent years domestic coloproctologists actively started introducing them in practice of treatment of hemorrhoids [20].

In the developed countries, most often applied way of treatment, the ligation of hemorrhoidal clusters latex rings (in 38-82%) is. The second place on application frequency (in 11-47%) is taken by sclerotherapy [3,20]. In 3-5% of supervision the infrared photocoagulation and an electrocoagulation of hemorrhoidal hubs [3,9,20] are applied. It should be noted that low-invasive methods of treatment undoubtedly possess a number of advantages: they are prime in application,

are safe, the slight number of complications is noted at their realization. These methods are applied usually in out-patient and polyclinic practice and do not demand larger material and financial expenses. The indication for application of low-invasive methods of treatment are incipient states of hemorrhoids with a dominance of symptoms of bleeding [7,14]. Contraindication to realization of low-invasive methods of treatment are inflammatory diseases of the proctal channel, a perineum and late stages of hemorrhoids with lack of a clear boundary between external and internal hemorrhoidal hubs [7,10].

Ligation of hemorrhoidal clusters latex rings

In our country broad application in out-patient and polyclinic practice was received by a method of a ligation of hemorrhoidal clusters latex rings [2,20,29,31]. Abroad the mechanical device for a ligation of hemorrhoidal clusters latex rings was created by Barron J. in 1963, and in Russia the analog is created by B. N. Reznik in 1977. The principle of this method of treatment consists, in displacement by a latex ring of a leg of internal hemorrhoidal knot, with the subsequent casting-off of fabric of knot under a latex ligature for 7-14 day after operation [30,31]. According to many authors, the method is high performance and can widely is applied on an outpatient basis without disability [2,20,29,30,31].

The relative contraindication for realization of a ligation is lack of borders between external and internal hemorrhoidal clusters, a crack of the proctal channel, a paraproctitis, and other inflammatory diseases of a rectum [10,14,20]. This technique still call "a tiny hemorroidectomy" which showed the high performance at 2 and 3 stages of a disease [12,14,30]. According to L.A.Blagodarny (1999), good results at late stages are noted in 83,3-88,7% which are possible at legible differentiation of borders between internal and external hemorrhoidal clusters. One authors for the purpose of decrease in a pain syndrome recommend to carry out procedure in two-three stages, with an interval in 2 weeks [14], other authors with an interval in 4 - 5 weeks [1,25] . Some authors recommend to impose rings at the same time on 3 hemorrhoidal knots with three-day appointment analgesic [2].

There are publications in which emergence to 40% of recurrence in some years after a ligation [29] is noted. Authors traced effectiveness of a ligation at 2 stages of an illness. In 5 years the good result is noted at 2/3 patients, and in 10 years at 50% of patients [30]. Advantage of a ligation before above-mentioned methods of treatment is possibility of its application at loss of clusters of the second and third stage of hemorrhoids. However, lack of a clear boundary between external and internal hemorrhoidal clusters as it more often happens at the combined hemorrhoids, complicates application of this method [29,30].

Infrared photocoagulation

According to many authors, an infrared photocoagulation as the self-contained method of treatment is effective only at incipient states of hemorrhoids [3,20,22,26]. At incipient states of a disease good results are noted by authors at realization of an infrared photocoagulation in 73-77% [2,3,26,32]. Other authors report about effectiveness of this method in 85,7% at the first stage, and in 76% at the second [6]. Linares Santiago E. from coworkers. (2001) reports about good results after an infrared photocoagulation in 91,5% of supervision at 1 and 2 stages. Kovalev V. K. from coworkers. (2001) notes to 90% of recurrence after application of an infrared photocoagulation as than a self-contained method at incipient states of a disease is more narrow in 2-4 months. At 3 stages good results are received after carrying out 3-4 sessions of treatment at 45% of patients. Linares Santiago E. from coworkers. (2001) after an infrared photocoagulation notes a moderate pain syndrome in 63,4% cases, moderate bleeding in 1,6% of cases, and a palindromia of 9,5%. Certain authors after an infrared photocoagulation note to 3,8% of complications which are most often stopped by conservative actions and generally do not influence results of treatment [2].

Thus, the infrared photocoagulation is most effective only in incipient states of a disease. In late stages of chronic hemorrhoids this method is shown only for a bleeding stop.

Sclerosing treatment of hemorrhoids

In incipient states of hemorrhoids, to a dress, with an infrared photocoagulation apply also a sclerosing method treatment. At hemorrhoids treatment use of sclerosing preparations has an old story. In Russia in I.I.Karpinsky's 1870 g for the first time applied sclerosing treatment.

The sclerosing method of treatment is shown at incipient states of hemorrhoids where a leading symptom is bleeding. In the presence of loss of clusters, as a rule, this method of treatment does not give a positive effect [17,23,27,30].

Indispensable advantage of sclerosing treatment is its availability, possibility of running in to out-patient and polyclinic practice, safety during manipulation and the low cost of a sclerosing preparation. In turn, the method is shown only at incipient states of a disease. In late stages it can be applied to more legible differentiation between internal and external clusters, and to decrease of weight of knot for the purpose of the subsequent combination with other low-invasive methods.

Electrocoagulation of hemorrhoidal clusters

One of low-invasive methods is the electrocoagulation hemorrhoidal clusters. For the first time the method was offered A. Cain in 1939. The essence of this method consists in coagulation of a leg of hemorrhoidal knot by adjustable current of small force (8-20 mA) and safe tension (12B) by means of various devices, Bicap, AKM, Ultroid, WD-2 [10,23,32] good results of this method of treatment are received, mainly in incipient states of a disease [29]. Lack of this method is duration of time of impact on one hemorrhoidal knot till 13 - 17 minutes, a pain syndrome arising both

during procedure, and after it. At 5-7% of patients thrombosis of hemorrhoidal clusters after this treatment [8,23,28] develops.

Ligation of terminal branches of the superior rectal artery under monitoring of an ultrasonic Doppler velocimetry

In recent years there were the publications devoted to identification under monitoring of an ultrasonic Doppler velocimetry of hemorrhoidal arteries, and with the subsequent their vasoligation [10,31]. Ultrasonic Doppler diagnostics carry out by means of the bidirectional pulse device with a frequency of 8,2 MHz, and existence of an arterial blood-groove is confirmed by a noise signal of the Doppler device, in the form of a pulsation, with measurement accuracy of a depth of vessels ranging from 0,1 to 1,5 mm. It is possible to execute this procedure in out-patient conditions without application of express anesthesia. Local ligation of a hemorrhoidal artery according to Morinaga K. (2000) is pathogenetically reasonable method of treatment which allows to cure patients with late forms of a disease. Results of treatment are comparable to results of surgical interventions. Lack of this method is need of express expensive inventory and padding preparation of the coloproctologist.

Surgical methods of treatment of hemorrhoids

The most widespread method of a surgical intervention in Russia is - the hemorroidectomy which is carried out at 75-79% of hospitalized patients. In our country in a year about 440480 thousand operations are carried out [6,23,29]. The indications for a hemorroidectomy are patients with chronic hemorrhoids of 3-4 stages, with lack of borders between internal and external hemorrhoidal clusters. For the first time such operation was developed and introduced in practice by English scientists of Milligan E. Morgan G. in 1937. Its feature consists in excising of external and internal hemorrhoidal clusters by the uniform block with realization of bandaging of a leg of knot a catgut thread and leaving of a wound of the proctal channel of the open. This operation first of all is directed on excising of three main collectors of the cavernous fabric being internal hemorrhoidal clusters and is carried out by the majority of coloproctologists of the developed countries [3,9,14,22]. Now in literature about 300 modifications of a hemorroidectomy are described, but still Milligan-Morgan's operation remains to the most popular among coloproctologists around the world [23,28,30].

Generally apply three options of operations. Open hemorroidectomy more popular in foreign practice. At realization of this technique together with clusters cavernous little bodies of a submucous layer of a rectum without an suture of wounds of the proctal channel are removed. After such intervention emergence of such postoperative complications as hypostasis of fabrics of a perineum who is marked out at 3,2% of patients, bleeding - at 1,9%, anus narrowing - at 1,6% is

possible, and recurrence of a disease arises at 3,8% [9]. The closed hemorroidectomy with restitution mucous the proctal channel, is more widespread in Russia [1,7,18,22]. According to Abcarion of N (1994), the hemorroidectomy as Milligan-Morgan is carried out by 90% of surgeons from the various countries. In 42% of supervision the preference is given to an open hemorroidectomy, and 58% - closed. In the analysis of data of literature, by authors it is not established reliable distinctions between the opened and closed hemorroidectomy on duration of treatment, expressiveness of the pain syndrome, the received results and number of postoperative complications [11,24].

Rather seldom by coloproctology it is carried out — a submucous hemorroidectomy. This operation was offered for the first time by A Parks, in 1956. This type of intervention is characterized by smaller number of complications, than an open technique. The essence of operation consists at a distance hemorrhoidal knot without excising anoderma [10,12]. Operation recommend to carry out generally at hemorrhoids of 3 Art. with a clear boundary [6,31]. According to authors, after this operation expressiveness of a postoperative dyscomfort decreases, there is no narrowing of the proctal channel, terms of stay in a hospital are reduced and it is more economic [7,12,20,31].

Now after a hemorroidectomy a large number of early and late postoperative complications is noted. According to one authors, in the early postoperative period at 6,7%-34,4% of patients the expressed pain syndrome in the field of a postoperative wound is noted and is long remaining pains during a defecation - at 5,1-31% of patients [15,16,20]. According to other authors, in the early postoperative period the expressed pain syndrome is noted at 71% of patients [31,32]. One of often arising complications the sharp delay of an emiction [28,30] is considered. In the early postoperative period the sharp ischuria meets at 6,8-27% of patients, at 5-7% of patients it passes to an atony of a bladder [9,21,27,29]. At 4-6% of patients develops pyoinflammatory complications in a wound or early bleeding [3,20]. According to K.M. Kurbonova and coworkers after a hemorroidectomy pyoinflammatory complications in a wound develop in 12-18% of supervision.

According to various authors for many years at 2-4% of patients, in the remote postoperative period the failure of a proctal sphincter and a stricture of the proctal channel remains, the palindromia [7,14,20,28,32] is also possible. Some foreign authors note a proctal incontience in 9,5% of cases after a hemorroidectomy [31]. In foreign literature there are descriptions of isolated cases of formation of abscesses of a liver after a hemorroidectomy [32]. Average stay of patients according to coloproctologists in the Russian Federation and abroad, in a hospital makes 12-14 koyko-days [1,4,18], and the period of common rehabilitation fluctuates from 3 to 5 weeks [4,9,16,21].

In recent years in domestic and foreign literature there were publications of application of an ultrasonic scalpel in hemorrhoids treatment [14,20,26]. The principle of action of an ultrasonic scalpel is based on mechanical fluctuations of a titanic edge with a frequency of 55000 Hz. By means of high-pitched ultrasonic energy there is a section of fabrics, and at the expense of a denaturization of protein and an obliteration of vessels the coagulative effect is reached. Coagulation of fabric happens only in a cell-like layer in a projection of immediate contact of an electrode, to minimum damaging impact on more deeply lying layers [29,30] . Hemorroidectomy with application of an ultrasonic scalpel in comparison with a traditional hemorroidectomy led to reduction of duration of an operative measure from 40 to 12 min. Also authentically expressiveness of a pain syndrome decreases and by 1.5 times the period of rehabilitation [7,9,30] decreases. After use of an ultrasonic scalpel terms of stationary stay were reduced till 3,8 days, and common disability - by 7,5 days [20] . The total of early postoperative complications does not exceed 4,8%. In 0,6% cases of the early postoperative period bleeding, in 2% - a sharp delay of an emiction, in 1% - crack formation, and rectum fistula in 0,8% [9] is revealed.

In recent years the great interest causes a new method of surgical treatment of the hemorrhoids, Longo A offered by the Italian scientist. (1997). The essence of this operation consists in use of a circular stapler, for excising mucosa - a submucous layer of a rectum, without removal of hemorrhoidal clusters. Operation is pathogenetically reasonable since as a result of excising there is a pulling up of the copular device and hemorrhoidal clusters to restitution normal a ratio between anatomic structures of the proctal channel, and in a submucous layer branches of the top hemorrhoidal artery that leads to the termination of inflow of blood to hemorrhoidal clusters and their reduction are crossed. All manipulations are carried out above the gear line on 2-4 cm, in the transitional department of a rectum. This method leads to the considerable decrease of a pain syndrome in comparison with a traditional hemorroidectomy [7,14,28,29]. The disposable offices PPh 1 33, CDH 33, HCS 33 of firm of "Ethicon Endo-Surgery" are applied to a stapler method [27,28]. Operation duration on the average about 15 minutes [17]. Other authors noted operation duration on the average till 33 minutes (from 15 to 60 minutes) [9].

Indications for stapler operation, according to domestic coloproctologists, are 2, 3, 4 stages of hemorrhoids [20]. Other authors consider as the main indication to carrying out operation 2 and 3 a disease stage [29] . According to foreign authors, the most efficient result is reached by Longo's method at treatment of 3 stages of chronic hemorrhoids [3,27]. The remote good results are received 95 - 95,7% [27]. The palindromia is noted 2,3% [30].

Thus, considering distinctions in loss of hemorrhoidal clusters and their sizes, on 3, 7 and 11 clocks, a majority of surgeons carry out a reference hemorroidectomy with removal of three

hemorrhoidal clusters. Shortcoming it is the high frequency of early and late complications in the postoperative period, the long-lived period of rehabilitation [31]. Also this operation does not demand larger material inputs. For Longo's method and a hemorroidectomy an ultrasonic scalpel it is necessary to use expensive inventory, and the remote results demand still further studying.

Existence of rather large number of postoperative complications and desire to reduce stay terms on a leaf of disability of the operated patients were the cause of further searching of methods of treatment of a hemorrhoidal illness [30]. The modern opportunities of surgical treatment of patients with chronic hemorrhoids are considerable now. Arsenal of methods of impact on this widespread disease a bike therefore it is necessary to define skillfully indications to treatment and, depending on a stage of a disease to choose the most suitable.

Conclusion

Thus, with development of scientific and technical progress the quantity of factors of the phenomena of a hypodynamia promoting development which in turn conduct to development of diseases of the cardiovascular, respiratory and alimentary system including hemorrhoids increases. Annual acceleration of rates of scientific progress therefore there are no bases to count on decrease in incidence by hemorrhoids is noted.

Sharpness of this problem is caused first of all by imperfection of methods of treatment applicable now and complication frequency in the early postoperative period, and also in the remote terms after a hemorroidectomy. 34-41% of patients after a hemorroidectomy have the expressed pain syndrome demanding numerous applications of narcotic analgetics. At 15-24% of patients – the dysuric phenomena resulting in need of the long-lived medicamentous stimulation and a catheterization of a bladder develop. At 2-10% in the postoperative period bleedings are noted. Pyoinflammatory complications arise at 23% of the operated patients. In the remote terms at 6-9% operated strictures of the proctal channel are formed, and at 1,8-4% of patients the failure of a proctal sphincter comes to light. Average term of rehabilitation after a hemorroidectomy makes not less than 4 weeks. In spite of the fact that the hemorroidectomy is regarded by the majority of surgeons as a radical way of surgical treatment of hemorrhoids, within 2-3 years after intervention return of a disease is noted in 1-3% of supervision, 10-12 years later - at 8,3% of patients.

Now, according to many authors, treatment of patients in out-patient conditions allows to reduce considerably the cost of a medical care, financial costs of out-patient operation average 30% of cost of hospitalization. However, algorithms of treatment of patients with hemorrhoids still are not developed. There are no legible criteria for realization of low-invasive operations depending on degree and weight of hemorrhoids. Searching of the most efficient, less morbid and economic

efficient low-invasive method of treatment of hemorrhoids in out-patient conditions is still conducted.

Above-mentioned data testify to relevance of searching of new techniques of treatment of the hemorrhoids, allowing lowering as injury of operation, to reduce number of postoperative complications and to reduce terms of medical rehabilitation. In the light of development of inpatient replacing forms, introduction of low-cost technologies and formation of "hospitals of one day" there is the increasing interest to rendering low-invasive methods of expeditious treatment at proctologic diseases in out-patient and polyclinic conditions

All above testifies to relevance of a solution of the problem of optimization of tactics of treatment of patients with chronic hemorrhoids and need of its further studying.

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