

ESTIMATION OF COMPLICATIONS AND RESULTS AT SCLEROTHERAPY WITH ULTRASONIC INFLUENCE

Solovyev O.L., Solovyeva G.A, Solovyev A.O.

Clinic "Dvizhenie", Volgograd, Russia

Introduction: All coloproctologists of the world continue to create new methods of miniminvasive hemorrhoids treatments. All methods have the advantages and lacks. In our clinic within 30 years the method of sclerotherapy of hemorrhoids is used. In 2000 year together with professor Savrasov from MSTU named after Bauman has been created and patented a method of sclerotherapy of hemorrhoids with ultrasonic influence. Now treatment by the method was received by 3840 patients with hemorrhoids of 1-4 stages that demands an estimation of efficiency of a method.

Method: For technique performance device «Proxon» has been created. It has 3 working knots: 1) the special tool for introduction sclerozant in a haemorrhoid node, 2) knot with an ultrasonic scalpel, 3) knot with the tool for processing of wounds and cavities. The technique of the methods' fulfilment is rather simple. Thus, having such equipment in out-patient operating room, coloproctologist can solve set of problems. At injection of sclerozant in hemorrhoidal pile at the same time with ultrasonic influence its action on a tissue becomes more intensive. The drug spreads more widely and more deeply. On the one hand it raises efficiency of procedure, on the other hand - the probability of development of complications grows.

During procedure we have some kinds of influence: 1) Wide contact of sclerozant with endothelium of changed cavernous bodies. 2) Impregnation of sclerozant in endothelium at the expense of ultrasonic cavitaton. 3) Ultrasonic welding of tissues on the tool end. 4) Formation of the canal on a course of the tool at the expense of thermal effect. These points give full difference of this method from traditional sclerotherapy. After end of procedure the drug is evacuated from hemorrhoidal pile on the tool canal in a rectum, reducing local toxic effect. Ultrasonic welding and the

tool canal form eventually an artificial ligament inside hemorrhoid. It is fixed to a muscular layer and penetrates all hemorrhoid. This artificial ligament plays a role of Treits ligament which degenerates in the process of disease. As sclerozant we use 3 % solution of Aetoxysclerol, but safety purposes we mix ex tempore 2 ml of sclerozant with 1 ml of water for injections. Every hemorrhoid is entered 3 ml of the received solution of Aetoxysclerol. We made such a decision after two cases of hemorrhoid's necrosis in the beginning of method using. Procedure is carried out in an ambulance station, does not demand anaesthesia. Time of influence for one hemorrhoid from 20 to 40 seconds.

Results: Sclerotherapy as a treatment method was used in all stages of disease and we can compare results. Most of these patients have stages 2 and 3 of disease, that is why the majority of patients with hemorrhoids needs the application of non-surgical methods with a high level of effectiveness. After completion of the procedure, where patients did not require additional treatment, the result was considered to be a good one. If symptoms of the disease reoccurred, further treatment would have been executed; this was categorised as a satisfactory result. Cases where disease reoccurred were categorised as bad results. For sclerotherapy with ultra-sound, the recurrence was with 15 out of 1028 patients (1,5%). For old methodics with 64 out of 585 patients (10,9%). When comparing the two procedures, sclerotherapy with ultra-sound produced the higher level of good and satisfactory results. We have compared the number of complications for traditional sclerotherapy: of 585 patients - 51 (8,7%), for sclerotherapy with ultra-sound: of 1028 patients - 28 (2,7%). So, the percentage of complications was reduced 4 times by sclerotherapy with ultra-sound. At traditional sclerotherapy the inflammatory complications connected with toxic influence sclerozant prevail. At sclerotherapy with ultrasound we connect considerable decrease in inflammatory complications with removal of sclerozant surplus from hemorrhoid by the canal generated by the tool. These disorders are easily stopped within day with medicamentous treatment. In most cases the bleeding stops by

compression for 1-2 minutes. It is necessary to notice, that recently in process of development of a technique the number of complications has decreased.

Conclusions: 1. The new method of miniinvasive treatment of hemorrhoids is more effective. 2. It is simple in performance, does not reduce workability of patients and can be used as out-patient treatment. 3. After number of complications decreased the efficiency has increased not only at the 3rd, but also at the 4th stage of disease. 4. It is preferable, that patients with stage 4 of disease are operated on surgically.