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THE ENDOSCOPIC SCLEROTHERAPY METHOD AT THE ESOPHAGEAL-GASTRIC BLEEDING IN PATIENTS WITH PORTAL HYPERTENSION

The article reviews the analysis of the results of endoscopic sclerotherapy (ES) in patients with portal hypertension (PH). The effectiveness of the method in the treatment of varicose veins (VV) of the esophagus in case of bleeding and delayed planned order was assessed. ES VV of esophagus in case of PH is an effective treatment and a good alternative to the "open" surgical interventions.

Keywords: portal hypertension, liver cirrhosis, bleeding, varicose veins of the esophagus and stomach, sclerotherapy.

Introduction. Today, treatment and prevention of complications of portal hypertension is an actual problem of modern hepatology. Increased incidence of cirrhosis of the liver is accompanied by increased bleeding portal genesis. Cirrhosis in 70-90% of patients is complicated by the development of esophageal-gastric bleeding, 30% - bleeding from the varices (VV) of the esophagus and the stomach occurs within a year of detection [1, 2]. During the first episode of bleeding mortality is about 50%, and the frequency of recurrence according to various sources is from 45% to 90% [5].

High operational risk, low survival rate and poor tolerance of major surgery have led to the need to find a "minimally invasive" treatment of patients with bleeding of portal genesis. ES VV of esophagus was first described in 1939 by C. Crawford and P. Freckner. But only in the 70's of twentieth century Jonston, Raschke, Pajuet published data obtained on a large number of clinical observations. Since then, it was initiated an intensive introduction into clinical practice of ES [4]. Nevertheless, despite the many years of experience of this technique, currently there is no unified scheme of ES with regard to age, the nature of the disease, size and number of veins treated and the medicine.

The purpose of research work is a comparative analysis of the results of treatment of patients with PH with esophageal varicose bleeding in a RH-2 Centre for Emergency Medicine using endoscopic techniques - sclerosis.

Materials and methods. Since 2005 endoscopy department of Belarus № 2 - Center for Emergency Medicine - started to use techniques of ES at a stop and prevention of bleeding from

esophageal VV in patients with PH. In connection with it we present results of our treatment of patients using the method of sclerosis from 2005 to 2012. In total there were 29 patients (11 men and 18 women) with varicose veins in the esophagus transformation of PH, who treated by this method. It was performed 74 sessions of ES: 16 (21.6%) for urgent indications against bleeding in 13 patients and 58 (78.4%) in the planning and deferred procedure in 16 patients. In order to prevent the first episode of bleeding (3 cases) there were 14 (18.9%) procedures. In 14 patients who had bleeding earlier, the purpose of the "secondary" prevention of recurrence satisfied 44 (59.5%) sessions ES. During endoscopic examination, 93.1% of patients' venous diameter ranged from 4 to 11 mm with the nodes to 7-10 mm, length of 5-70 mm. According to A.G. Schertzinger this pattern corresponds to stage III of esophageal VV. Basically, VV located in the lower and middle thirds of the esophagus. ES procedures were performed in patients aged 26 to 76 years. We divided them into several age groups (Table 1). Since the study covers a longer period, we observed the transition of some patients from one group to another. The cause of PH at 82.4% of cases was decompensated by viral cirrhosis. The average age of patients was 43.8 years.

During 68 sessions (24 patients) the solution of ethoxysclerol (polidokanol) at different concentrations (from 0.5 to 3%) was used as sclerosing medicine. More often (54 times), it was used 0.5% solution of ethoxysclerol. It was injected from 3 to 20 ml for one procedure; each venous trunk had 3 to 8 ml. In 28 of observations (51.9%) it was simultaneously injected in two veins. At the beginning, ES was conducted using 70% ethanol in 5 patients (6 sessions). At the same time, 2-2.5 ml of ethanol was injected and injected on one vessel.

It was formed paravasal "clutch" (8.3 ml) after the injection of sclerosing agents intravenously 46 (62.2%) times during a session. In 16 (55.2%) of the patients it was initially injected all VV (1-3). A single injection of sclerosant was sufficient in 13 observations with moderate process. 16 (55.2%) patients required repeated sessions (1-3 sessions).

In the planning and deferred ES on the background of sustainable hemostasis, gap between 1st and 2nd manipulation, on average, was 5.6 days. If you continue the course, waiting period was reduced to 4.8 days after the 2nd session. In 13 patients, whom the first procedure was performed against bleeding, repeated sessions were conducted at different times, depending on the result. Reaching the hemostasis, parameters were similar to represented, in case of its absence the session was repeated to the next day. At first relapse of bleeding in the hospital it was performed an emergency sclerotherapy vein in the coming hours.

Results. Performing ES in the planning and deferred order, immediate good result was achieved in 15 of cases (93.8% efficiency). During the urgent sessions hemostasis was achieved in 92.3% of patients. Local complications from the use of ethoxysclerol were recorded in 9 cases

(37.5%) (Table 2). Spraying into paravasal fabric in small quantities does not cause complications. Healing of defects was faster without any clinically significant effects.

Using 70% of alcohol complications were observed in 60%. Due to small number of patients (5), which was carried out with ES using 70% of ethyl alcohol, we believe that these complications of patients are not significant.

Inefficiency under ES we understood: 1) failed attempts to stop bleeding (2), 2) repeated relapses (1) bleeding in the hospital.

3 (23.1%) patients on 1-5 days after the manipulation had relapsing bleeding. Repeated sessions of ES were effective in 2 (66.7%) cases. Ongoing bleeding (1) and a second rebleeding in hospital (1) were the absolute indication for laparotomy.

The overall mortality rate in our study was 6.9% (2 cases). These fatal outcomes were recorded in patients who were part of a group of cirrhosis complications (group C according to Child-Pugh), which sclerotherapy performed urgently. Overall mortality for this disease in our clinic was 11.8%. The death of one patient was due to the development of hepatic coma after achieving hemostasis. In 1 case the cause of death was bleeding during the operation that can not be done, because of the very serious condition of the patient. Under endoscopic control after 1 year remission was found in 58.6% of cases. In terms of up to 5 years relapse was observed in 20 (69%) patients. In 50% of patients relapse occurs in the first 6 months, in a long-term period - less.

Our results do not differ significantly from the results presented by other authors. According to V.A. Kashchenko [3], recurrent bleeding in hospital was recorded in 28.6% of cases, mortality was 14.3%, VV relapse within 1 year occurred in 64.3% of patients.

Based on these results, we can conclude that ES is an effective method for correcting VV of esophagus and its complications at PH. At acute esophageal-gastric bleeding from VV of esophagus ES is an alternative to the traditional operations and is the only possible (except the endoscopic ligation) way to achieve hemostasis. High mortality is explained by the severity of the initial state of the patients. Defining moments in forecasting the outcome of treatment of these patients is the functional reserve of the liver. In case of bleeding from the VV of stomach this technique is currently not effective due to imperfection of endoscopic techniques.

Conclusions

1. Endoscopic sclerotherapy should be recognized by the "first line" of acute esophageal variceal bleeding.

2. Important for prognosis are the severity of the initial condition of the patient, the activity of the pathological process in the liver parenchyma and functional reserve of the liver.

Table 1. The patients' age and the number of sessions

Age, years	The number of patients	The number of sessions
26-40	4	11
31-40	7	14
41-50	11	33
51-60	4	9
Up to 60	3	7
Total	29	74

Table 2. Complications of ES

Complication	Sclerosant			
	70% of alcohol		Ethoxysclerol	
	The number of patients	%	The number of patients	%
Ulcers of the esophagus	2	40,0	5	20,8
*Erosion of the esophagus	1	20,0	3	12,5
*Bleeding	-	-	1	4,2
Total	3	60,0	9	37,5

Note. * - During fibrogastroduodenoscopy it was observed 100% of healing.

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