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Result of endoscopic treatment of gastric varices hemorrhagic by biological glue

F.Belabbes*, K .Benjouad , S . Oubaha, Z.Samlani, K.Krati

Service de Gastroentérologie, Centre Hospitalier Universitaire Mohamed VI de Marrakech, Marrakech, Maroc,

Laboratoire de Physiologie, Faculté de Médecine et de Pharmacie de Marrakech, Marrakech, Maroc

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ABSTRACT

*Gastrointestinal hemorrhage (HD) by rupture of varicose veins is the most complicit complication of death during cirrhosis. It is most often linked to a rupture of gastroesophageal varices. Endoscopic obturation by biological glue of the various gastric (VG) is the treatment of choice. Our aim is to evaluate the efficacy and safety of this therapeutic modality Material and methods We conducted a retrospective study of patients who had gastrointestinal bleeding secondary to rupture of gastric varices and treated with biological glue between January 2016 and April 2018 within our department. Results We collected 55 cirhosis patients; The average age was 57.3 years [30-78] with 30 men and 25 women. Gastrointestinal haemorrhage was externalized as haematemesis in 31 cases, in the form of melena in 19 cases and in the form of haematemesis and melena in 5 cases. A medical treatment based on Sandostatin * has been used in all patients .The mean hemoglobin level was 5.8 g / dl. All patients were transfused on average with 2 red blood cells All patients had recent bleeding stigmas at endoscopy. Gastric varices were distributed between stage I in 82.66% and stage II in 17.34%.Concurrent oesophageal varices were noted in almost all patients. N-Butyl-2-cyanoacrylate (Histoacryl) was the product used in all cases. The number of sessions ranged from 1 to 3 with an average of 1.59 sessions per patient. The mean follow-up of the patients was 24 months. There are also 4 PDV patients before the eradication and a failure by early haemorrhagic recurrence by VG rupture). There is a mortality rate of 3.6% with two cases of death one by early bleeding recurrence and the other by septic shock Conclusions Intravascular endoscopic cyanoacrylate injection is a safe and effective therapeutic option for the treatment of acute gastric varices bleeding.*

Keywords : gastrointestinal bleeding, gastric varices, portal hypertension, biological glue, endoscopy

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INTRODUCTION

Bleeding of gastroesophageal varices (GVO) is a major complication in patients with cirrhosis. Gastric varices (GV) are less common than oesophageal varices (OV), occurring in approximately 20% of patients with portal hypertension (1). The development of VG seems to be more common in non-cirrhotic portal hypertension (HTP). About 4% of cirrhotic patients have gastric varices (LV) objectified on the oeso-gastroduodenal fibroscopy (FOGD) screening (2).

The only endoscopic treatment recognized to date and recommended is the cyanoacrylate filling.

This effective treatment is still imperfect with 5 to 10% recurrence and serious complications, even fatal. New therapeutic modalities such as vascular endoscopic ultrasound have enriched the arsenal of therapy with the injection of cyanoacrylate in perforating or gastric varices with very good results. In the absence of randomized studies, this type of treatment does not yet appear in the recommendations [3] [4].

Goal :

Our goal is to evaluate the efficacy and safety of endoscopic treatment of gastric varices bleeding by biological glue.

MATERIALS AND METHODS

We conducted a retrospective study of patients who had gastrointestinal bleeding secondary to rupture of gastric varices and treated with biological glue between January 2016 and April 2018 in our department, based on the description of the endoscopist, the VGs were classified according to the classification of Sarin et al (5).

The material used in our study for an intravascular injection:

A catheter with an endoscopic injection needle preferably 20-21 G, two 2 mL syringes each containing 1.5 mL of Lipiodol (close to the volume of the sclerotic needle) and a 2 mL syringe containing a mix 1 mL of the glue.

The catheter with the sclerosis needle is first lubricated with a 1.5 ml syringe of Lipiodol. In order to avoid the polymerization of the glue in the catheter, it is advisable to hold the catheter full of Lipiodol® and to inject the 2 ml of the cyanoacrylate-Lipiodol® mixture into the needle only when the varix has been located at the same time. endoscopy. The injection must be intravascular. The catheter with the sclerotic needle must be sufficiently far out and away from the endoscope lens.

RESULTS AND DISCUSSION

We collected 55 patients; The average age was 57.3 years [30-78] with 30 men and 25 women. (Table 1).

Table 1: Demographic Characteristics

Total number	Middle age	Age minimal	Age maximu	Sex-ratio
55	57,3	30	78	1,2

The clinical manifestations of GI bleeding are dominated by three main symptoms that are summarized in Table 2.

Table 2: Clinical presentations of patients

SYMPTOMS	Number
hematemesis	31
moelena	19
Hematemesis and moelena	5

The various etiologies found for cirrhosis in our study are summarized in Figure 1.

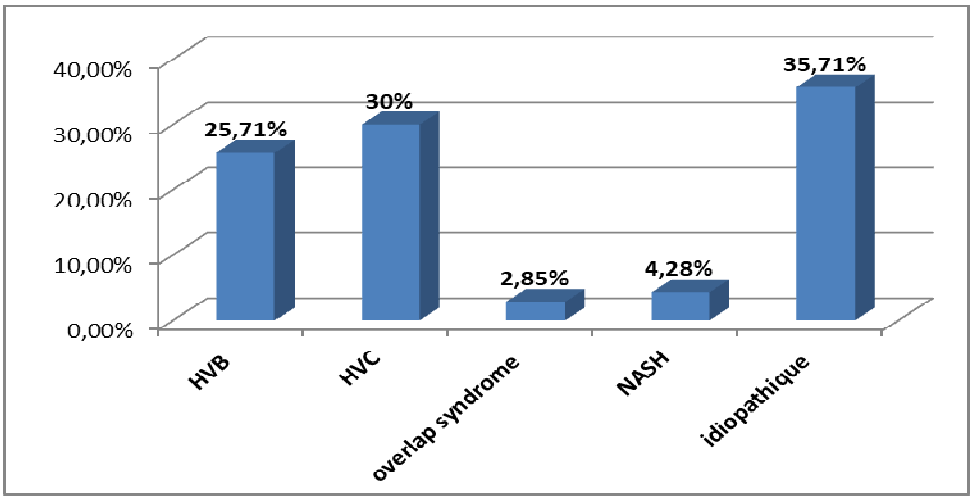

Figure 1: Aetiological profile of cirrhotic

Hepatic cirrhosis was most often classified in Child A shown in Table 3.

Table 3: prognostic classification

Cirrhosis stage	Percentage (%)
Child A	22,60
Child B	47,50
Child C	29,90

A medical treatment based on Sandostatin * was used in all patients. The average hemoglobin level was 5.8g / dl. All patients were transfused on average by 2 red blood cells.

Endoscopic exploration, performed in the first 12 hours, objectified the lesions represented in Table 4.

Table 4: Characteristics of gastroesophageal varices found

Type of varicose veins	Percentage
IVIG	82.66%
IGVII	17.34 %
Concurrent VO	100%
Stigmas of bleeding	100%
Number of gastric varices -A single VG: -Two varicose veins:	 70% 30%

The average time between the bleeding episode and the sealing session was 4 days (2-7 days).

N-Butyl-2-cyanoacrylate (Histoacryl) was the product used in all cases (Figure 4).

Figure 4: Image by storing histoacryl utilisée comme colle biologique

The collection was made in all cases of lipiodol. The moyenne quantity of injected pellet injected was 3 ml. No incident or complication immid.

The session name varied between 1 to 3 with a moyen of 1.59 patient pair sessions.

I am sui moyen des patients was 24 months old. On the same level, 4 patients are losing sight of the eradication and a failure due to VG precocious haemorrhagic toric recidivism.

Note that there is a mortality rate of 3.6% with a previous case of a previous hemorrhagic precursor and the other pair of septic shock.

Discussion:

Haemorrhage by rupture of gastric varices represents 10% of upper gastrointestinal haemorrhage by HTP with higher rates of recurrence and mortality than for VO.

The risk of bleeding increases with the duration of the disease, the degree of hepatic impairment according to the Child-Pugh classification, the size of the varicose veins, the presence of red signs and the hepatic venous pressure gradient (HVPG) [2, 5]. About 70% of gastric varices are VOG1, but they are the cause of hemorrhage in only 11% of cases. However, IGV1 represents only 8% of gastric varices, but they are responsible for about 80% of variceal bleeding (6). Patients with hemorrhage of oesophageal and gastric varices are a group of patients at high risk of death (7).).

Their treatment is based on intensive resuscitation, pharmacotherapy and endoscopic surgery, the best strategy for managing acute haemorrhage by rupture of gastric varices is similar to bleeding by rupture of oesophageal varices, which involve the protection of the respiratory tract, stabilization hemodynamics and intensive care. Blood transfusion should be administered carefully to avoid rebleeding. Vasoactive agents such as terlipressin or somatostatin should be used when GV bleeding is suspected. Vasoactive agents should be administered as soon as possible (before endoscopy) when variceal bleeding is suspected. Routine use of prophylactic antibiotics reduces bacterial infection and lowers recurrence rates. By administering endoscopic cyanoacrylate injection, the initial haemostasis rate is at least 90% in most cases (8).

Endoscopic treatment depends on the type of varicose veins and the location of the bleeding [4, 6-8]. Endoscopic treatment should be considered as soon as possible, no later than 12 hours after the onset of bleeding symptoms; this is based on the recommendations of the Baveno VI consensus [9].

A biological glue injection treatment such as N-butyl-2-cyanoacrylate (Histoacryl) or isobutyl-2-

cyanoacrylate (bucrylate) is recommended in cases of gastric varix rupture (GI) or gastric varices bleeding. oesophageal type 2 (GOV2).

A ligation or glue injection treatment can be performed in case of GOV1 variceal rupture (8,9).

For the primary prevention of gastric varix rupture IGV 1 and GOV 2, only one study suggests that biological glue injection treatment is more effective than betablocking therapy. Further studies are therefore needed to better assess the benefit / risk balance before a formal recommendation (9).

Biological glue deposited in the wall of the esophagus can lead to the development of deep ulceration, and even perforation and embolic complications with mediastinitis (10).

Common complications associated with GVO are fever and abdominal pain / discomfort. Severe complications after GVO are mainly associated with systemic thromboembolic events such as cerebral, pulmonary, portal vein and splenic infarction (11).

Cyanoacrylate glue is a liquid that can be mixed with lipiodol, an oily contrast agent, prior to injection. The cyanoacrylate mixture with lipiodol slows the rate of solidification, facilitating endoscopic administration via the injection needle (21-22 gauge) and reducing the risk of damage to endoscopes. Expert opinion suggests that individual glue injections are limited to volumes of 0.5 to 1.0 ml to minimize embolic risk (12). The use of wide-channel endoscopes with the irrigation function provided by the jet channels greatly facilitates the washing of clots and the aspiration of all gastric contents. General anesthesia with endotracheal intubation plays a large role in this procedure (5,12).

When patients with bleeding rupture of gastric varices that do not respond to initial endoscopic treatment, a second endoscopic treatment should be attempted if possible. If a second attempt fails or the severity of bleeding prevents further endoscopic treatment, rescue therapy using surgical shunts or intrahepatic transjugular portosystemic shunts (TIPS) should be considered for refractory bleeding (13,14).

Randomized controlled trials should be conducted comparing TIPS to glues of cyanoacrylateles patients who are candidates for TIPS, In addition, the combined treatment of these modalities could also be a way to improve outcomes or decrease complications of acute bleeding.

CONCLUSION

Bleeding of gastric varices is a serious but relatively rare complication of portal hypertension. The most appropriate treatment in these cases is the endoscopic treatment of varicose veins by injecting the biological glue, which remains the best choice for treating gastric varices.

Future research demonstrating the safety and efficacy of these compounds may lead to wider adoption.

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