
Endoscopic hemostasis with fibrin glue for refractory postsphincterotomy and postpapillectomy bleeding

M. Mutignani, T. Seerden, A. Tringali, D. Feisal, V. Perri, P. Familiari, G. Costamagna

Rome, Italy

Background: Bleeding is a feared complication of endoscopic sphincterotomy and papillectomy. Fibrin glue has been proposed as an effective adjunct in securing hemostasis. However, its use has been limited by the risk of early occlusion of the injecting needle, and its role has not been defined in the setting of refractory post-ERCP bleeding. We present a modified technique of endoscopic hemostasis with diluted fibrin glue in the setting of postsphincterotomy and postpapillectomy bleeds.

Objective: We aimed to verify that diluted fibrin glue can be easily and successfully injected and is effective in the endoscopic treatment of refractory post-ERCP bleeding.

Design: Case series.

Setting: A tertiary-care academic medical center.

Patients: Six patients with refractory post-ERCP bleeding were treated (3 after sphincterotomy and 3 after papillectomy) with fibrin glue injection.

Intervention: Endoscopic hemostasis with diluted fibrin glue injection.

Main Outcome Measurements: Successful endoscopic hemostasis with diluted fibrin glue injection.

Results: One session of fibrin glue injection stopped the refractory post-ERCP bleeding in all 6 patients.

Limitation: Small number of patients.

Conclusion: This case series provides evidence that our modified injection technique of diluted fibrin glue allowed an easy submucosal injection and may be considered to be an effective endoscopic modality to treat refractory post-ERCP bleeding.

Bleeding after endoscopic sphincterotomy and papillectomy is one of the most common complications of therapeutic ERCP.¹⁻⁴ In the majority of cases, the bleeding stops spontaneously or after endoscopic hemostatic therapy. Endoscopic treatment options include injection with diluted epinephrine, hemoclip placement, or thermal coagulation.^{2,5-9} When bleeding is refractory, most endoscopists repeat the endoscopic procedure or combine endoscopic therapies to achieve hemostasis. This strategy is considered to be the treatment of choice and has a high success rate. However, in a minority of cases endoscopic hemostasis fails and the bleeding needs to be stopped radiologically or surgically.^{1,4,10} In this subgroup, bleeding-

Abbreviations: CBD, common bile duct; ES, endoscopic sphincterotomy; HGD, high-grade dysplasia; IV, intravenous; NBD, nasobiliary drain; NPD, nasopancreatic drain.

DISCLOSURE: All authors disclosed no financial relationships relevant to this publication.

Copyright © 2010 by the American Society for Gastrointestinal Endoscopy
0016-5107/\$36.00

doi:10.1016/j.gie.2009.12.024

Received July 27, 2009. Accepted December 16, 2009.

related mortality has been reported and new therapeutic modalities advocated.¹¹

In 2000, Born et al¹² suggested that fibrin glue could be considered as a new therapeutic modality for this subgroup of refractory postsphincterotomy bleeding. Fibrin glue has also been shown to be effective in gastroduodenal ulcer bleeding and has the advantages of providing a matrix for wound healing and not causing tissue damage even after multiple injections.¹² However, despite the broad experience with the use of fibrin glue in peptic ulcer bleeding and the favorable results of fibrin glue in refractory postsphincterotomy bleeding, data concerning treatment of refractory post-ERCP

Current affiliations: Digestive Endoscopy Unit, Department of Surgery, Sacro Cuore Catholic University, Rome.

Reprint requests: M. Mutignani, MD, Digestive Endoscopy Unit, Università Cattolica del Sacro Cuore, Largo A. Gemelli 8, 00168, Rome, Italy.

If you want to chat with an author of this article, you may contact Dr Mutignani at massimiliano.mutignani@rm.unicatt.it.

bleeding with fibrin glue are limited and its role is still unclear.¹²⁻¹⁴

Therefore, we report herein our experience with diluted fibrin glue in the setting of refractory postsphincterotomy and postpapillectomy bleeding and aim to demonstrate that fibrin glue can be a new tool in the armamentarium of the interventional endoscopist to deal with refractory bleeding.

METHODS AND PATIENTS

Between 2006 and 2008 in our institution, 6 patients were treated with fibrin glue for refractory bleeding after ERCP (3 after sphincterotomy and 3 after papillectomy). A medical history was taken from all patients before ERCP. Hemoglobin levels, platelet counts, and coagulation parameters were evaluated to exclude bleeding disorders and concomitant anticoagulation therapy.

The ERCP procedure was carried out either under conscious sedation with midazolam (2-10 mg intravenously [IV]) and fentanyl (0.05-0.1 mg IV) or with the patient under general anesthesia. In addition, intravenous hyoscine butylbromide (40-60 mg IV) or glucagon (1-2 mg IV) was administered. In all cases, a therapeutic duodenoscope (TJF-140R or TJF-160R; Olympus, Tokyo, Japan) was used for ERCP.

Sphincterotomy technique

After deep cannulation, the double-lumen cannulotome (CCPT-25; Wilson-Cook Medical, Winston-Salem, NC) was retracted until about one-third of the cannulotome remained within the papilla, and a complete sphincterotomy was made in a stepwise manner toward the 11 to 12 o'clock direction (sphincterotomy Endo Cut mode, VIO D 200 System; Erbe, Tübingen, Germany).

Papillectomy technique

ERCP was performed with methylene blue-enriched gastrografin (Bracco Diagnostic, Milan, Italy) to exclude intraductal extension of the lesion and to facilitate pancreatic and bile duct cannulation after resection. The resection was performed en bloc by using a standard polypectomy snare (AcuSnare; Wilson-Cook Medical; papillectomy Endo Cut mode, Erbe VIO D 200 System). After resection, pancreatic duct and common bile duct sphincterotomies were performed. Pancreatic stent placement (5F-7F, 3-5 cm long; Wilson Cook Medical) or nasopancreatic drainage was inserted to avoid post-ERCP pancreatitis.

Endoscopic hemostasis

For epinephrine injection therapy, we used diluted epinephrine solution (1:10,000) by using a standard 23-gauge sclerotherapy needle (Innoflex; Innovamedica, Cusago, Italy). Epinephrine was injected in small aliquots around the bleeding point.

Endoclip placement (Quickclip 2; Olympus) and thermal coagulation were also applied for post-ERCP bleeding.

The thermal therapy consisted of using monopolar coagulation with the metal tip of the Dormia basket (Innoflex) or applying several pulses of 10 W with bipolar Gold Probe electrohemostasis catheter (Boston Scientific, Natick, Mass) to the bleeding point.

When the bleeding was refractory to conventional endoscopic hemostatic techniques, fibrin glue (Tissucol; Baxter Healthcare Corp., Deerfield, Ill) was injected submucosally at the bleeding site. We opted for the sequential single-lumen injection technique to facilitate injection and diffusion of the diluted fibrin into the submucosa followed by the thrombin activator to maximize hemostasis within the target area and avoid early superficial clot formation. After fibrin sealant was warmed to 37°C by placing the vials in a warm water bath (~5 min), the fibrin component was diluted with sterile water in a 1:1 ratio. Diluting the fibrin glue reduces the viscosity and optimizes the flow through the injection needle. This simple measure avoids the problem of needle occlusion. The diluted fibrin and thrombin were then injected sequentially at the bleeding site with a standard single lumen 23-gauge sclerotherapy needle.

RESULTS

Postsphincterotomy bleeding

Case 1. Postsphincterotomy bleeding started 9 hours after sphincterotomy of the papilla minor. The indication for sphincterotomy was acute relapsing pancreatitis in a patient with chronic pancreatitis and pancreas divisum. Duodenoscopy showed an oozing bleed from the papilla minor, and endoscopic hemostasis was achieved by placing clips and injection of epinephrine at the minor papilla (Table 1). Because of the suspicion of a refractory bleeding, a control pancreaticography was performed. The examination showed clots in the pancreatic duct. Repeat ERCP revealed a refractory arterial bleeding with intraluminal blood clots. After Dormia basket clot extraction, bleeding continued despite Gold probe application, and the bleeding site was injected with 5 mL fibrin glue. This stopped the bleeding. A 6F nasopancreatic drain (NPD) was placed in the Santorini duct for flushing. After 48 hours the NPD was removed and the patient recovered. The pancreatic stent was left in place for 3 months.

Case 2. ERCP with sphincterotomy was performed for common bile duct (CBD) stones. Immediately after sphincterotomy an oozing bleed started and was controlled with epinephrine injection and monopolar coagulation with the tip of the Dormia. The CBD stones were removed and nasobiliary drain (NBD) was placed. Six hours later, the patient developed melena. A second-look duodenoscopy showed an oozing hemorrhage with an adherent clot at the papilla. After removing the clot with a

Download English Version:

<https://daneshyari.com/en/article/3305665>

Download Persian Version:

<https://daneshyari.com/article/3305665>

[Daneshyari.com](https://daneshyari.com)