

# Practical Application of Hemostatic Techniques Using PuraStat® for Bleeding After Endoscopic Sphincterotomy (EST)

## CASE PRESENTATION

### DIAGNOSIS

Common bile duct stone

### PATIENT DEMOGRAPHICS

- Male, 68 years old
- ERCP performed due to the diagnosis of common bile duct stones
- Patient is on maintenance hemodialysis

### PROCEDURE

- ▶ After intubation, 0.025-inch guide wire (J-wire) was placed in the bile duct. Bleeding observed post-EST using CleverCut (Olympus) to remove the stone (Fig. 1).
- ▶ Catheter was filled with PuraStat (Fig. 2).
- ▶ After cleaning and identifying bleed site, catheter was placed in contact with bleed site and PuraStat applied (Fig. 3)
- ▶ Hemostasis was confirmed one minute after application (Fig.4).

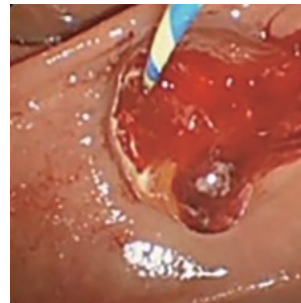


Fig.1 Confirmation of bleeding from Sphincterotomy site



Fig.2 Filling the catheter with PuraStat

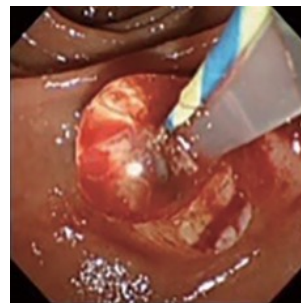


Fig.3 Application of PuraStat



Fig. 4 Confirmation of hemostasis

Scan this code to see Dr. Ogura's case video



### TIPS FOR APPLYING PURASTAT FOR POST-EST BLEEDS



“When applying PuraStat, gravity may cause the hydrogel to fall into the third part of the duodenum. It’s therefore often possible to successfully apply if it’s angled to the left, looking down at the nipple and applying from the upper-left side. In the case above, hemostasis was confirmed only 1-minute after application of 2 mL of PuraStat (Fig. 4), enabling removal of the stone without further complication. Application should be done with intermittent pushing of the syringe, rather than pushing it all at once. No adverse events, such as obstruction of the bile and pancreatic duct ostium or postoperative pancreatitis, were observed.”

#### Dr. Ken Ogura

2nd Department of Internal Medicine (Gastroenterology)  
Osaka Medical and Pharmaceutical University Hospital, Japan

# A First-Line Strategy for Managing Post-EST Bleeds

"In our hospital, PuraStat is the first-line hemostatic method for post-EST bleeds, except in case of spurting bleeding (Fig. 5, lower). Generally, 3 mL of PuraStat is sufficient to achieve hemostasis. After about 1 minute, without prior use of air, suction, or irrigation, air is injected only after application of PuraStat to confirm good hemostasis. In case of spurting bleeding, when it is difficult to secure the endoscopic field of view, we find the application of PuraStat may reduce the severity of bleeding and can be useful for identifying the bleed location." — K. Ogura

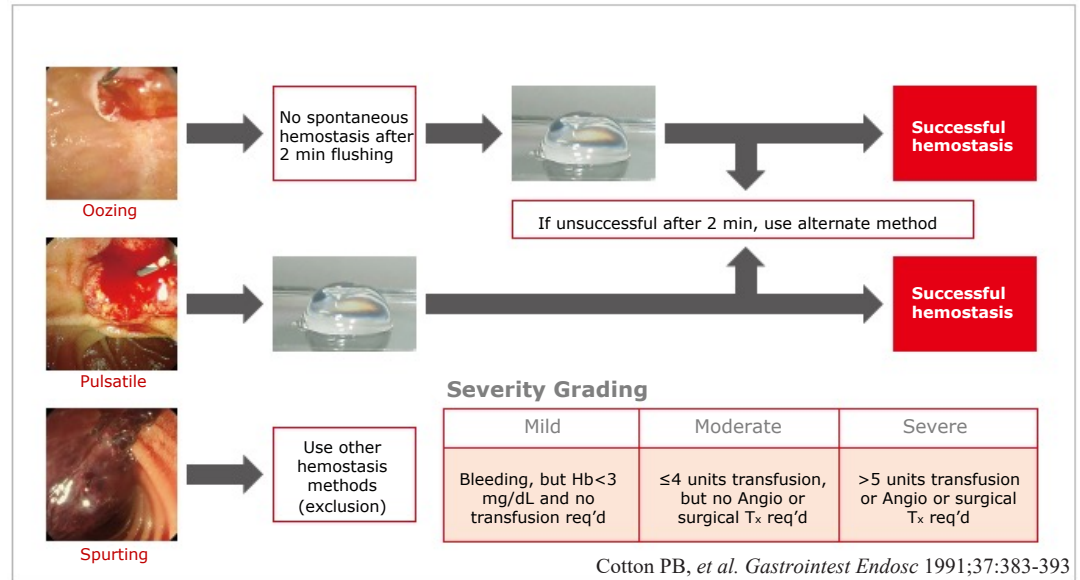


Fig.5: First-line strategy using PuraStat for post-EST bleeding (STOP Trial)

## Patient's background

<b>N</b>	<b>13</b>
Age / Gender (M:F)	71 / 10:3
Details of ERCP procedure (n)	
CBD stone removal	2
Biliary drainage	7
Diagnosis	4
Others	0
Risk of bleeding (n)	
Antiplatelet or anticoagulant	2
Liver cirrhosis	0
Dialysis	1
Diverticulum	2
EST	
Large : middle : small	0:12:1
Baseline Hb (mean, mg/ dL)	11.8 (8.8-16.1)

Fig.6 Outcomes of using PuraStat as the first-line hemostatic method for post-EST bleeds

## Procedure outcomes

<b>N</b>	<b>13</b>
Technical success % (n/N)	84.6% (11/13)
Need for additional hemostasis technique (n)	4
Coagulation	3
HSE injection	0
Covered SEMS	2
Angio	0
Surgery	0
Severity Grade	
Severe : Moderate : Mild	0:1:12

## DR. OGURA'S IMPRESSIONS ON THE USE OF PURASTAT

- ▶ 13 cases were treated with PuraStat as the first-line hemostatic method, with a good success rate 84.6% (11/13).
- ▶ There were no cases of pancreatitis caused by the application of PuraStat.
- ▶ PuraStat is less expensive than metal stents and can be used without concerns of pancreatitis or ulceration.\*
- ▶ PuraStat is being investigated in a clinical trial at our hospital and is expected to become the first-line hemostatic method to treat oozing or pulsatile bleeding in the future.

\*Although several treatment methods have been reported for post-EST bleeding, including balloon compression, local injection, clipping/coagulation and metal stenting, related drawbacks such as pancreatitis, ulceration and high costs have also been identified.

## Want to find out more about PuraStat? Contact us!

PuraStat® is indicated for hemostasis of mild and moderate bleeding post ESD or EMR, as an adjunct, bridge, prophylactic or rescue therapy for intraprocedural venous bleeding or prophylactic therapy to prevent post procedure bleeding.

**3-D Matrix North America**  
 1234 Chestnut Street, Suite 205  
 Newton, MA 02464  
 Tel: 855-4-3DM-MED — 855-433-6633  
[sales@3dmatrix.com](mailto:sales@3dmatrix.com) | [www.3dmatrix.com](http://www.3dmatrix.com)

(1) M400d-1 PuraStat IFU-003 Rev 01 09/21

**Rx** CAUTION: Federal law restricts this device to sale by or on the order of a physician.