

## Successful Hemostasis using Hemostatic Powder in Patient with Refractory Duodenal Ulcer Bleeding

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**Background:** Upper gastrointestinal bleeding (UGIB) causes significant morbidity and mortality. Esophagogastroduodenoscopy (EGD) is the gold standard for diagnosis and therapy of UGIB. Conventional endoscopic treatments for UGIB include injection sclerotherapy, thermal therapy, and hemoclipping. Endoscopic treatments usually achieve primary hemostasis in the majority of patients. However, 10% to 30% of these patients have repeat bleeding. Recently, hemostatic powders (Nexpowder<sup>®</sup>) are a new endoscopic therapeutic modality for gastrointestinal bleeding. The aim of this study was to evaluate the efficacy of this hemostatic powder in refractory UGIB.

**Case report:** A 36-year-old male with hypertension and chronic heart failure was admitted to our emergency department due to melena. He was known to have had previous recurrent duodenal ulcer bleeding during 12 years. The use of nasogastric-tube insertion and gastric lavage showed blood and digital rectal examination showed a melena. EGD was performed and showed UGIB due to multiple active ulcers of the duodenal bulb with a nonbleeding visible vessel (Forrest class IIa). Bleeding was stopped with injection of epinephrine saline and two hemoclips were deployed on the bleeding vessel. However, on admission, follow-up EGD showed repeat bleeding. There was an exposed vessel near the clipping site, but hemostasis was not achieved even though epinephrine injection and Argon plasma coagulation were performed, because the ulcer site was hardened. Successful hemostasis was achieved using Nexpowder<sup>®</sup>, a powdered hemostatic agent. By the fourth day, the patient was considered to be fully recovered and was discharged.

**Conclusions:** A hemostatic powder may be effective in the endoscopic treatment of refractory UGIB.

**Keywords:** Hemostatic power, Upper gastrointestinal bleeding

