An unusual and unvoluntary hemostatic technique for an incidental postprocedural bleeding

Marco Giunta 1, Cristina Linea 1, Dario Raimondo 2, Emanuele Sinagra 2,3,4

1Gastroenterology Unit, Ospedali Riuniti “Villa Sofia - V. Cervello”, Via Trabucco 180, 90146 Palermo, Italy
2Fondazione Istituto S. Raffaele- G. Giglio, Gastroenterology and Endoscopy Unit, Cefalù, Italy
3Phd Course in Surgical Biotechnology and Regenerative Medicine, School of Medicine, University of Palermo, Italy
4Euro-Mediterranean Institute of Science and Technology (IEMEST), Palermo, Italy

Correspondence: Emanuele Sinagra
E-mail: emanuelesinagra83@googlemail.com
Received: January 09, 2015
Published online: March 16, 2015

Keywords: water pump; hemostasis; bleeding


Introduction

Colonoscopy is a highly efficient imaging modality. [1]. Significant bleeding is an unusual complication of diagnostic colonoscopy [2,3]. We report the case of a submucosal watery infiltration of the submucosa through the water pump device, which exerted an effect of mechanical interruption of the bleeding, thus allowing an accurate and effective hemostasis in a post procedural bleeding.

Case report

A 45-year-old female patient was admitted to our endoscopy unit, with the probable diagnosis of inflammatory bowel disease of the small bowel, to perform a colonscopy. During the procedure, completed with the ileal intubation through a standard colonscope (olympus CFQ 180 AI), we performed an ileal and colonic sampling. However, during the sampling of the transverse colon, the patient developed a profuse post-biopsy bleeding. For this reason, we decided initially to wash the bleeding field with a water pump, in order to identify immediately the bleeding source. The water pump employed was an Olympus Evis Exera, a system which supplies a continuous jet of water at high pressure (maximal flow rate 10.1 oz/min) which easily and swiftly washes away any blood that is obstructing the visual field, allowing identification of the bleeding source. However, as showed in the picture (figure 1), the continuous supply of water at high pressure not only swiftly washed away obstructing blood in the visual field, but also determined an incidental submucosal watery infiltration of the submucosa, which exerted an effect of mechanical interruption of the bleeding, thus allowing an accurate and effective hemostasis.

Discussion

In the setting of the endoscopic emergencies, a large-caliber, dual-channel, therapeutic endoscope, with one channel for water lavage or suction and a second channel for insertion of therapeutic catheters, is preferred. A water pump is useful to vigorously and extensively lavage blood and clots to visualize underlying lesions [4].

Interestingly, based on the same rationale, it has been recently developed a needleless waterjet elevation of the submucosa: such devices ensures that the mucosa is elevated quickly and a large fluid cushion is created – with a low risk...
of perforation and bleeding compared to conventional needle
injections [5-7].

However, it results intriguing how the hemostatic method
used to arrest this postprocedural bleeding secured not only a
sufficient visual field to see the bleeding lesion, as should be
always easily done, but also that it allowed to stop reliably
the bleeding derived from a postprocedural complication.

Conflict of interests

none declared for all the authors

References


