

Interesting Images

Bleeding Lesion from Roux-en-Y Hepaticojejunostomy: A Successful Combined Hemostasis with Dual Emission Laser 1.9/1.5 μm

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Abstract: A 28-year-old woman, with a history of liver transplantation with Roux-en-Y hepaticojejunostomy, was admitted for melena and severe anemia. Bidirectional endoscopy was normal. Capsule endoscopy demonstrated fresh blood in the efferent limb downstream of the jejuno-jejunostomy. Anterograde double-balloon enteroscopy (DBE) showed an adherent clot with a visible vessel oozing next to the hepaticojejunostomy. Bleeding was treated firstly with argon plasma coagulation and endoclips and further treated with dual emission laser, achieving complete hemostasis. At the 3 months follow-up, hemoglobin was stable without evidence of re-bleeding.

Keywords: device-assisted enteroscopy; therapeutic intervention; liver transplantation; gastrointestinal bleeding; laser



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DBE is an effective and safe technique for managing complications in surgically altered anatomy [1]. Dual emission laser allows a precise hemostasis on the targeted mucosal surface, reducing the chance of unexpected injuries [2,3]. This case is the first describing a bleeding vessel in a liver-transplanted patient with Roux-en-Y hepaticojejunostomy treated by combining traditional endoscopic hemostatic techniques with an innovative one (dual emission laser). In particular, the bleeding source was in a very critical zone with the risk of damaging the anastomosis during cauterization and clip positioning. We think that the use of laser minimizes the possibility of uncontrolled cauterization and, thus, enables operating safely in difficult positions. In Figure 1 and Video S1, the procedure is shown and explained in detail.

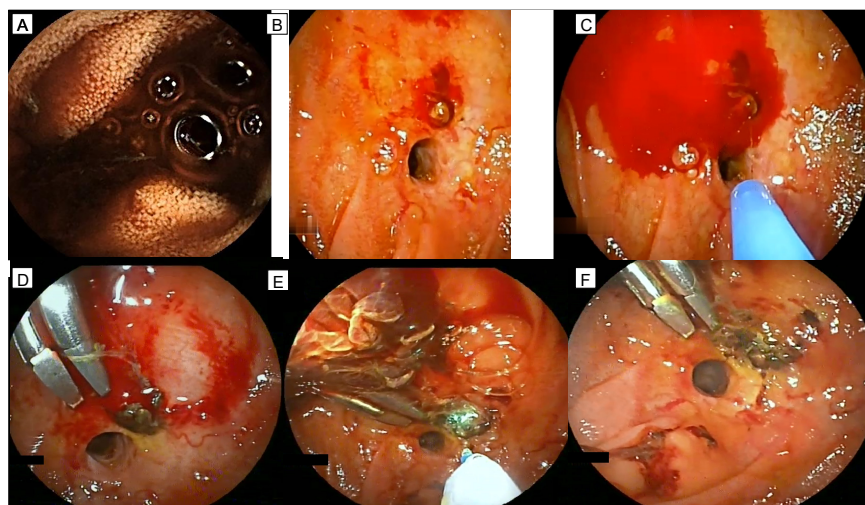


Figure 1. The main findings of the performed enteroscopies are shown. At capsule endoscopy, blood was present at jejunojejunoscopy coming from the hepatic limb (A). During anterograde double-balloon enteroscopy, active bleeding from the afferent limb was observed with the presence of fresh blood at the jejunojejunoscopy. Retrograde underwater exploration of the afferent limb showed the presence of an adherent clot close to the hepaticojejunoscopy (B). Upon clot removal, an oozing hemorrhage from a visible vessel was observed and treated with argon plasma coagulation (30 W) (C). Subsequently, two endoclips were placed with a partial control of the bleeding (D). Finally, dual emission laser 1.9/1.5 μm was applied (Opera and Opera Evo by Quanta System, Samarate, Italy) (E) with the complete bleeding arrest (F).

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/diagnostics12092107/s1>, Video S1: Anterograde double-balloon enteroscopy showing a bleeding visible vessel at the hepaticojejunoscopy, successfully treated with combined hemostasis with a dual emission laser at 1.9/1.5 μm (Opera and Opera Evo by Quanta System, Samarate, Italy) (5 W/5 W delivered by a flexible optical fiber of 550 μm , 80 J + 80 J) applied after partial bleeding control was previously achieved with argon plasma coagulation and endocliping.

Author Contributions: B.M., L.S., M.V., R.P. and N.N. drafted and revised the manuscript; L.E. and G.E.T. executed the procedure. All authors have read and agreed to the published version of the manuscript.

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