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Correspondence

Re: Recanalization of an Occluded Intrahepatic Portosystemic Covered Stent via the Percutaneous Transhepatic Approach

Ziv J Haskal, MD, FACR FAHA FSIR

Professor of Radiology and Surgery, University of Maryland Medical Center

Dear Editor:

I read the recent Case Report by Drs. Chan and Liang, entitled "Recanalization of an Occluded Intrahepatic Portosystemic Covered Stent via the Percutaneous Transhepatic Approach" (1). I would respectfully suggest that they have overlooked certain predicate literature. In 2002 we published a report describing the demonstrated rapid and reliable thrombosis of transjugular intrahepatic portosystemic shunt (TIPS) created with polyethylene terephthalate covered stent grafts in humans (2); earlier swine animal TIPS work had already demonstrated rapid occlusion (3). Other papers support this as well (4, 5). As a result, I would say that the Wallgraft (Boston Scientific, Natick, MA) or any polyester-based stent grafts are inappropriate and clearly contraindicated for the creation of de novo TIPS in that their patency is far worse than a bare stent.

The stent grafts that have proven uninterrupted patency for over ten years now, are covered with expanded polytetrafluoroethylene such as the Viatorr (WL Gore and Associates, Flagstaff, AZ). Further, ePTFE TIPS stent grafts require no anticoagulation, something naturally undesirable in a patient with variceal bleeding -- as is the need for

prolonged local thrombolysis in patients with a propensity for recurrent variceal bleeding, as in this patient.

Using a transsplenic approach during a prolonged thrombolytic infusion must be considered with caution due to the vascularity of the organ and risk of bleeding in a patient who may now be in a systemically fibrinolytic state. Finally, there are other approaches to recanalizing occluded shunts that have been described including the use of the Colapinto-type needle to provide a stabilizing tool at the mouth of the occluded TIPS (to aid in advancing the guidewire through the occluded shunt), or in rare cases, direct transstent puncture (6) -- an approach that would have worked in the setting of this porous graft material. These approaches have proven routinely fruitful in the author's experience.

References

1. Chan CY, Liang PC. Recanalization of an occluded intrahepatic portosystemic covered stent via the percutaneous transhepatic approach. *Korean J Radiol* 2010;11:469-471
2. Haskal ZJ, Weintraub JL, Susman J. Recurrent TIPS thrombosis after polyethylene stent-graft use and salvage with polytetrafluoroethylene stent-grafts. *J Vasc Interv Radiol* 2002;13:1255-1259
3. Haskal ZJ, Brennecke LH. Transjugular intrahepatic portosystemic shunts formed with polyethylene terephthalate-covered stents: experimental evaluation in pigs. *Radiology* 1999;213:853-859
4. Ferral H, Alcantara-Peraza A, Kimura Y, Castañeda-Zuñiga WR. Creation of transjugular intrahepatic portosystemic shunts with use of the Cragg Endopro System I. *J Vasc Interv Radiol* 1998;9:283-287
5. Cejna M, Thurnher S, Pidlich J, Kaserer K, Schoder M, Lammer J. Primary implantation of polyester-covered stent-grafts for transjugular intrahepatic portosystemic stent shunts (TIPSS): a pilot study. *Cardiovasc Intervent Radiol* 1999;22:305-310
6. Haskal ZJ, Cope C. Combined transhepatic and transvenous approach to hepatic vein stenosis after transjugular intrahepatic portosystemic shunt (TIPS). *Cardiovasc Intervent Radiol* 1994;17:173-175

Corresponding author:

Ziv J Haskal, MD, FACR FAHA FSIR, Vascular and Interventional Radiology, University of Maryland Medical Center,
22 S Greene Street, GK214, Baltimore MD 21201, USA.
Tel. (410) 328-3631 Fax. (410) 328-6184 e-mail: ziv2@mac.com