The clinical case of three successful TIPS procedures in one patient with recurrent episodes of variceal bleeding

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Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

☐ Consulting
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☐ Other(s)

☒ I do not have any potential conflict of interest
Background

• Transjugular intrahepatic portosystemic shunts (TIPS) have been proven to be effective in 59.4%-91% of cases for secondary prevention of variceal bleeding in patients with cirrhosis and portal hypertension.

• However, shunt dysfunction is a major drawback of TIPS.

• The incidence of shunt dysfunction and occlusion after initial placement has significantly decreased, with a 12-month primary patency rate of 79.9% for the PTFE-covered stents compared to bare metal stents.

• TIPS stenosis and occlusion are important causes of morbidity and mortality in patients with portal hypertension status post TIPS.

History

• 66 y.o. female with cirrhosis and portal hypertension due to autoimmune liver disease, Child-Pugh C

• A clinical diagnosis of liver cirrhosis was made after first GI bleeding in 2009

• 3 episodes of variceal bleeding during the period of 2009-2015 years despite the medical management and endoscopic variceal ligation

• Scheduled for TIPS on April 2015
1\textsuperscript{ST} TIPS (April 2015)
Post 1ST TIPS

- Portosystemic pressure gradient decreased from 21.4 to 9.6 mm Hg
- Uneventful post TIPS period up to discharge
- Antiplatelet therapy – aspirin for life
Follow-up post 1\textsuperscript{ST} TIPS

- The patient had not obtained consistent surveillance
- In November 2015 (7 mo later) the patient developed a new episode of variceal hemorrhage
- The liver doppler ultrasound showed stent thrombosis
- Attempted endoscopic variceal ligation was unsuccessful and the patient was treated conservatively
- Scheduled for TIPS revision on December 2015
2\textsuperscript{ND} TIPS (December 2015)
Post 2\textsuperscript{nd} TIPS

- Portosystemic pressure gradient decreased from 18.2 to 8.9 mm Hg
- Uneventful post second TIPS period up to discharge
- Antiplatelet therapy – aspirin for life
Follow-up post 2\textsuperscript{nd} TIPS

- In July 2016 (7 mo later) the patient developed a new episode of variceal hemorrhage treated conservatively
- The liver doppler ultrasound showed shunt thrombosis
- Scheduled for TIPS revision on July 2016
3rd TIPS (July 2016)

- Right TJV/TRA approach
3rd TIPS (July 2016)

- Right TJV/TRA approach
- Middle HV to left branch of PV puncture
3rd TIPS (July 2016)

- Right TJV/TRA approach
- Middle HV to left branch of PV puncture
3rd TIPS (July 2016)

- Right TJV/TRA approach
- Middle HV to left branch of PV puncture
3rd TIPS (July 2016)

- Right TJV/TRA approach
- Middle HV to left branch of PV puncture
3d TIPS (July 2016)

- Right TJV/TRA approach
- Middle HV to left branch of PV puncture
- Embolization of short GV with a coil
3rd TIPS (July 2016)

- Right TJV/TRA approach
- Middle HV to left branch of PV puncture
- Embolization of short GV with a coil
1. Right TJV/TRA approach
2. Middle HV to left branch of PV puncture
3. Embolization of short GV with a coil
4. Stent-graft 10x80 mm
5. Postdilatation with 10x80 mm BC
• Right TJV/TRA approach
• Middle HV to left branch of PV puncture
• Embolization of short GV with a coil
• Stent-graft 10x80 mm
• Postdilatation with 10x80 mm BC
Follow-up post 3\textsuperscript{rd} TIPS

- Portosystemic pressure gradient decreased from 18.4 to 9.2 mm Hg
- Uneventful discharge
- Antithrombotic therapy – aspirin for life
- During the period of 15 months of follow-up after the third TIPS procedure the patient has had no variceal bleeding
- No evidence of shunt dysfunction on US
Take-home message

• For patients with repeat TIPS occlusion and recurrent episodes of variceal bleeding when the shunt revision is failed or when there are concerns about thromboembolic complications, the third parallel TIPS is feasible and provides a good alternative procedure for continuing management of portal hypertension.
Thank you!
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