

Early “pre-emptive” Transjugular Intrahepatic Portosystemic Stent- Shunt (TIPSS)

Dhiraj Tripathi

Peter Hayes

David Patch

Disclosures

- Speaker fees GORE Medical

Interventional Therapies for variceal bleeding

1938 – 1st case report of sclerotherapy (Crafford)

1973 – 1st reported series of sclerotherapy 117 pts (Johnston)

1981 – Using flexible endoscopes (Sivak)

1983 – Use of overtubes (Westaby)

1989 – Reduced mortality with sclerotherapy (Infante)

TIPSS – 1989 Richter & Rossle

1989 – 1st reports of VBL

1992 – Seminal work demonstrating superiority of VBL (Stiegmann)

Covered TIPSS – 1997 Saxon

Early covered TIPSS for AVB – 2010 Garcia Pagan

Covered TIPSS for ascites– 2016 Bureau

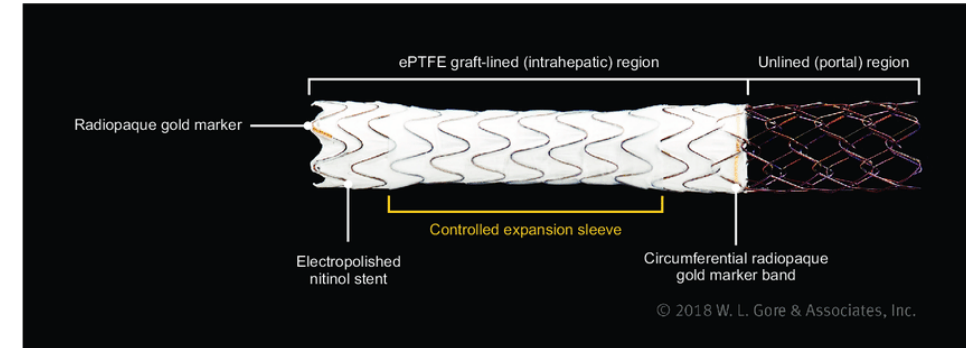
Viatorr type of covered stent (Gore Medical)



Diameter: 8,10,12 mm

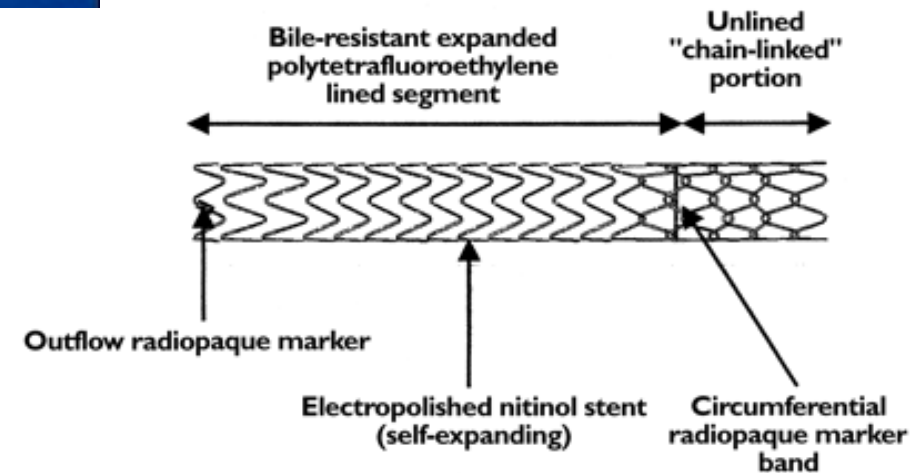
Length: 4-8 cm (covered)

2 cm (uncovered)

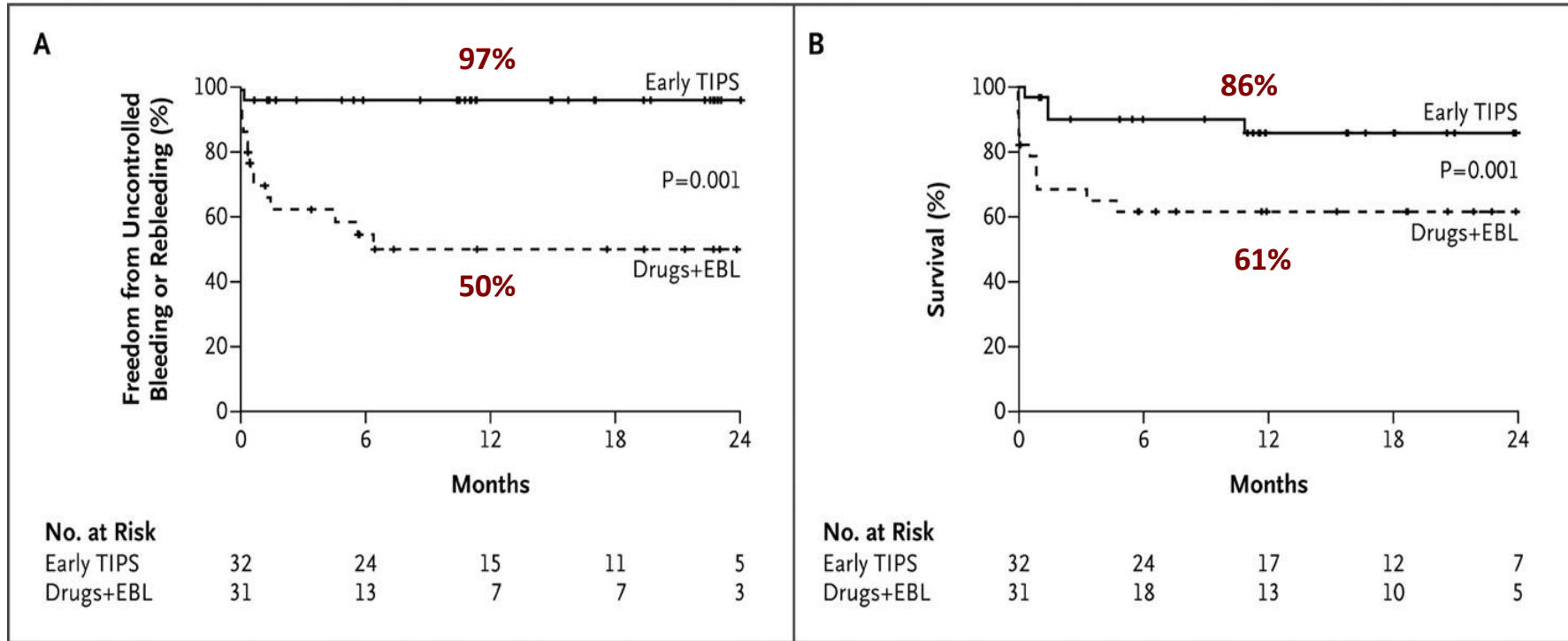


J Hepatol. 2017;66:S48-9.

Cardiovasc Intervent Radiol. 2018;41:518-21.



Multicentre RCT of Early TIPS (1st 72 hrs; N=32) Vs EBL+NSBB (N= 31) in Patients with Acute Variceal Bleed (Child B with active bleeding or Child C < 14)



ARR= 47%

ARR= 25%

Audit of pre-emptive TIPSS

Thabut et al, J Hep 2017

931 screened (58 French hospitals; 2012-13), 326 met criteria for early TIPSS

57 underwent TIPSS (17.5%) and only 22 (6.7%) for early TIPSS indication.

Early TIPSS not offered due to lack of local availability of TIPSS (45%), physician did not believe in early TIPSS (34%), and other reason (21%)

Early TIPSS more in academic centres (9.2% vs 2.5%)

Early TIPSS patients had less severe cirrhosis.

Survival benefit not seen in Child's B with active bleeding.

On multivariate analysis only severity of liver disease associated with survival not early TIPSS.

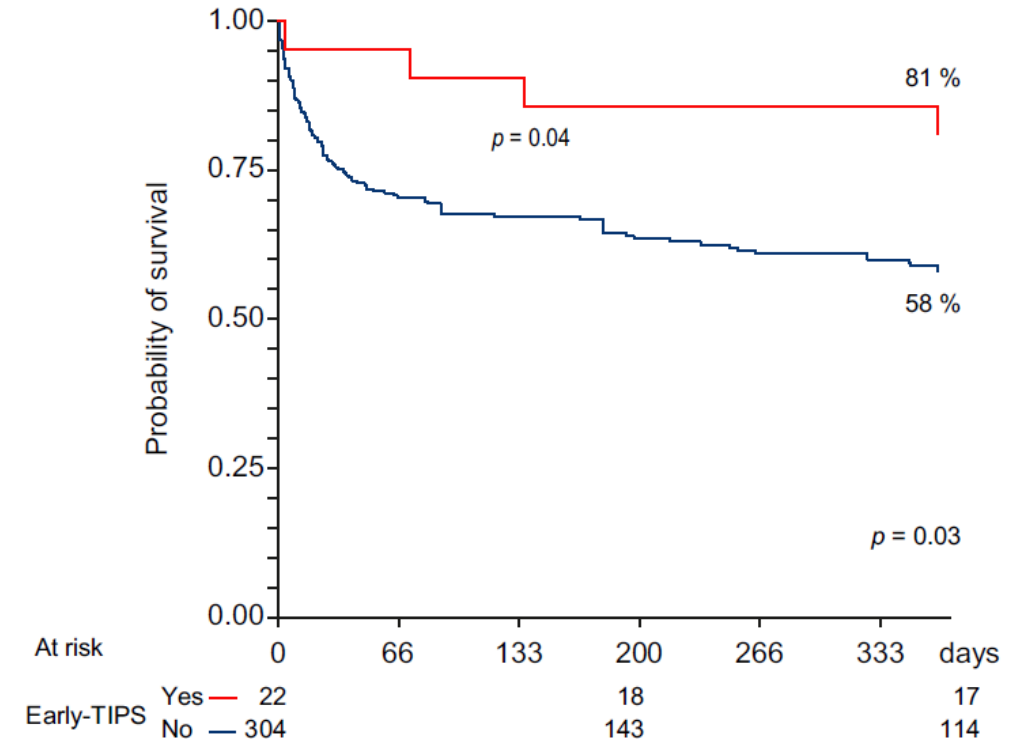


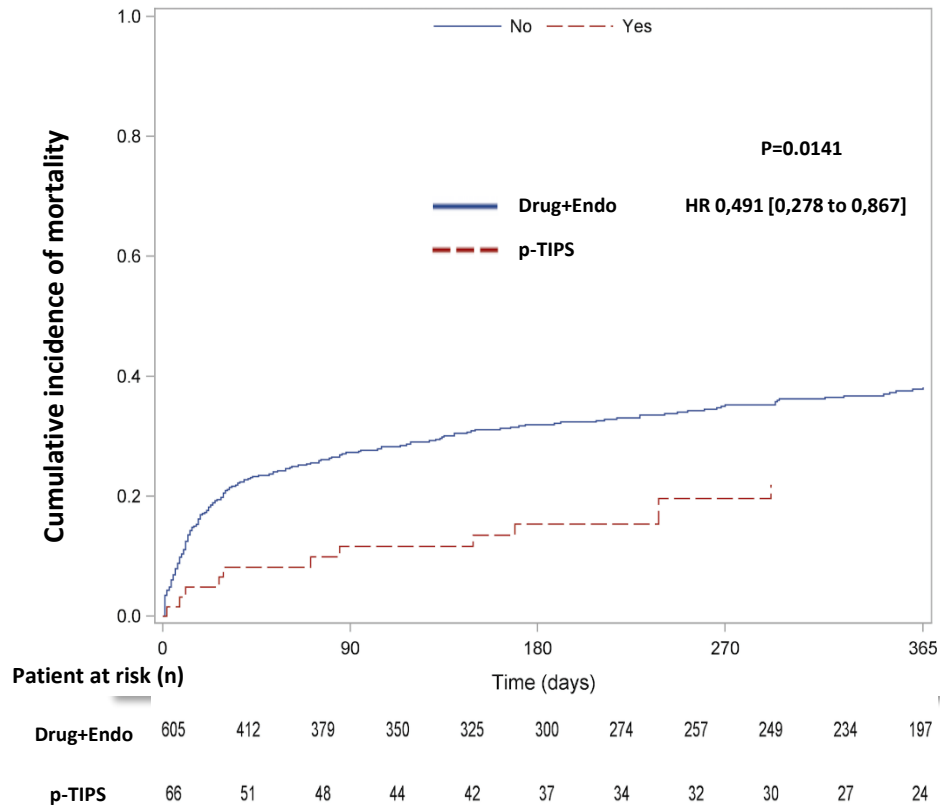
Fig. 2. Actuarial survival in the 326 patients eligible for early-TIPS according to early-TIPS placement. The actuarial probability of survival at one year was significantly increased in the patients who underwent TIPS (85.7 ± 0.07%, vs. 58.9 ± 0.03%, $p = 0.04$). TIPS, transjugular intra-hepatic porto-systemic shunt. Statistical tests: Kaplan-Meier method. (This figure appears in colour on the web.)

Preemptive-TIPS Improves Outcome in High-Risk Variceal Bleeding: An Observational Study

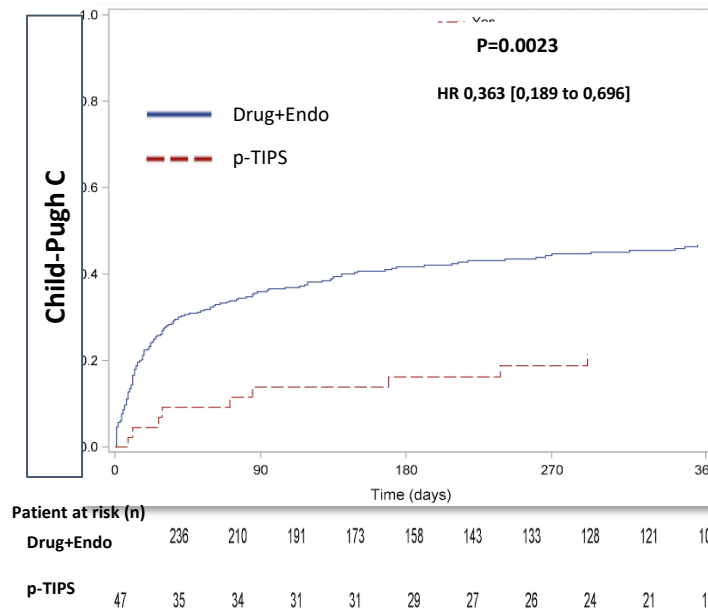
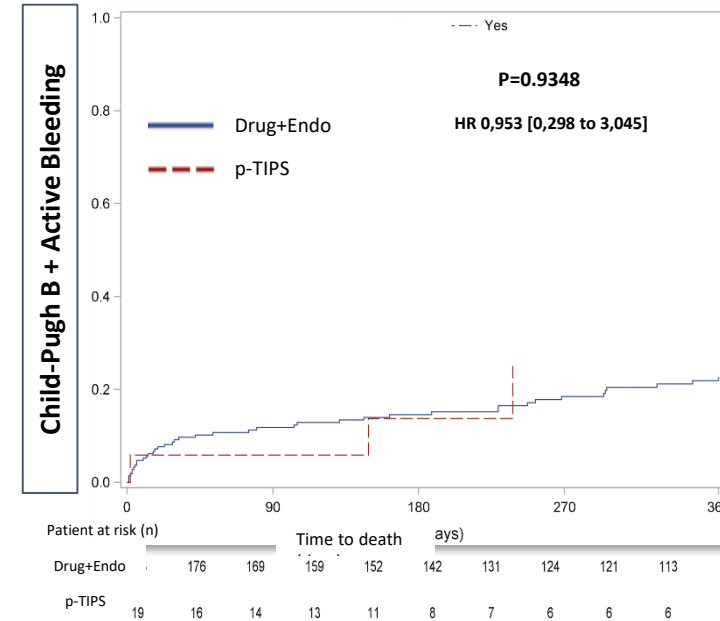
- Multicenter observational study; 34 centers; (April 2013- 2015).
- 671 patients with Acute VB and high risk of treatment failure (Child-Pugh C score < 14) or Child-Pugh B plus active bleeding at endoscopy (CP-B+AB)
- E-TIPS = 66, Drugs +EVL= 605
- Follow up= 12 months or until death or LT.

Multicenter International Observational Study

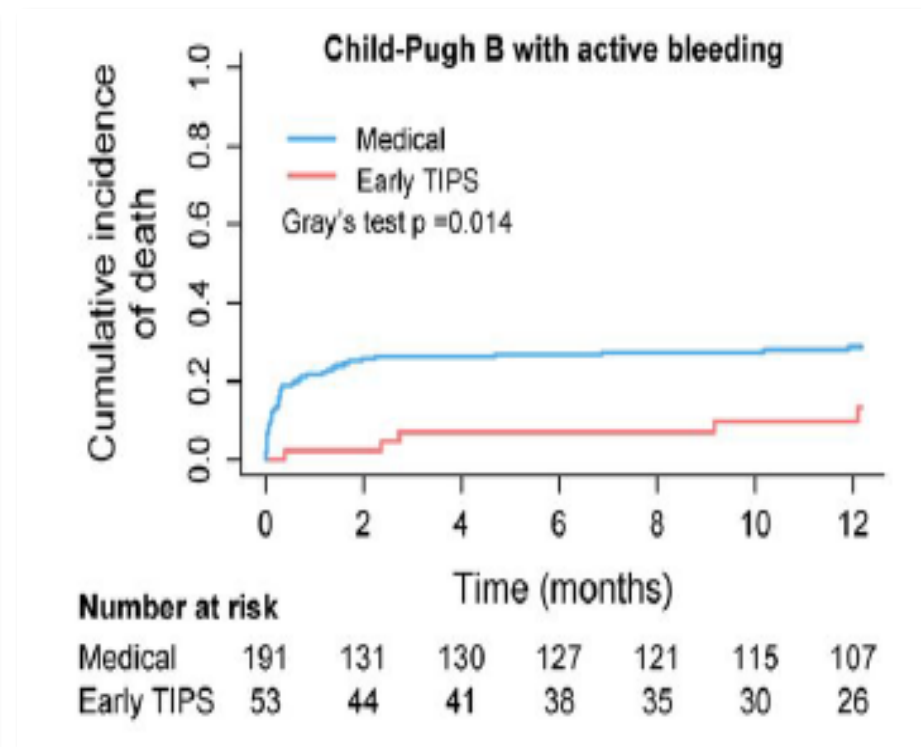
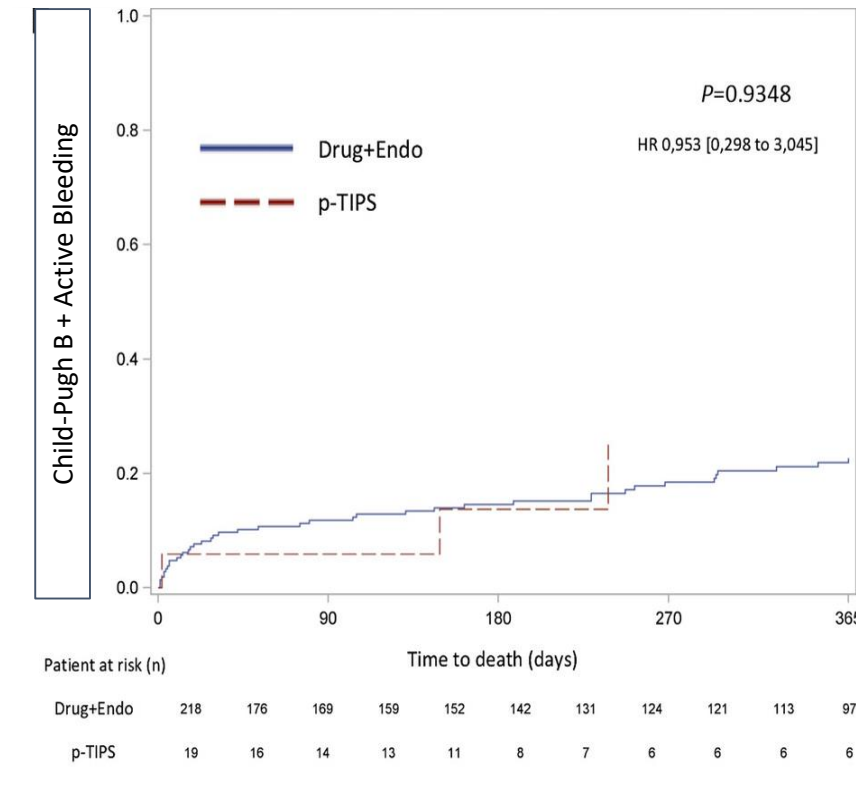
OLT-free survival



P-TIPS markedly improved survival in the whole cohort of high-risk patients admitted with AVB



Effect of p-TIPS vs standard therapy on the **mortality** in Child-Pugh B patients with Active variceal bleeding



Hernández-Gea et al; Hepatology
2019;69:282-293

N= 1425, 12 Chinese hospitals
(December 2010 - June 2016)
e-TIPS= 206; SOC=1219

Lv et al; Gut. 2018 Nov 10. pii: gutjnl-2018-317057.

Randomised trials of early (pre-emptive) TIPSS

ClinicalTrials.gov:
NCT01370161

- Early TIPS with covered stent versus standard treatment for acute variceal bleeding among patients with advanced cirrhosis: A randomised controlled trial
- China (Prof Han)
- Completed
- ILC2019 abstract PS-024

ClinicalTrials.gov:
NCT02377141

- Early Use of Transjugular Intrahepatic Portosystemic Shunt (TIPSS) in Patients With Cirrhosis and Variceal Bleeding
- UK (Prof Hayes)
- Completed
- Results to be presented at the British Society of Gastroenterology Annual Meeting June 2019

- Early pre-emptive covered TIPS (placed within 24–72 h) can be suggested in selected high-risk patients, such as those with Child class C with score <14 (I;2).
- However, the criteria for high-risk patients, particularly Child B with active bleeding, remains debatable and needs further study.

EASL Guidelines
2018



- Following satisfactory haemostasis with the methods above, and depending on local resources, early covered TIPSS (<72h following index variceal bleed) can be considered in selected patients with Child's B cirrhosis and active bleeding or Child's C cirrhosis with Child's score less than 14 (Level 1b, Grade B).

BSG Guidelines
2015



Early or “pre-emptive” TIPSS

- Applies to TIPSS during *acute bleeding episode* in a *stable patient* with aim of reducing risk of rebleeding
- Some inconsistencies with RCT and real world results, especially with regards to selection criteria
- Most patient suitable for pre-emptive TIPSS not offered it – resources, lack of knowledge or belief
- Publication of 2 RCTs (China and UK) eagerly awaited
- Baveno VII aims to perform a systematic review of individual data
- Until then can we really adopt pre-emptive TIPSS in the UK?