Outcomes of Patients with Cirrhosis Treated with Indwelling Catheters and TIPS for Refractory Ascites:

A 14-Year Single Center Review

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INTRODUCTION

- Refractory ascites is defined as ascites that cannot be mobilized or recurs after paracentesis despite sodium restriction and diuretic therapy.
- It occurs in 5-10% of patients with cirrhosis and is associated with poor survival. 1,2
- Treatment options include serial paracentesis, transjugular intrahepatic portosystemic shunt (TIPS), indwelling abdominal catheters (IAC), and liver transplantation.
- Current guidelines do not recommend placement of IAC due to few, low quality studies lacking safety and efficacy on the topic ³

AIM

To describe the natural history and outcomes associated with IAC.

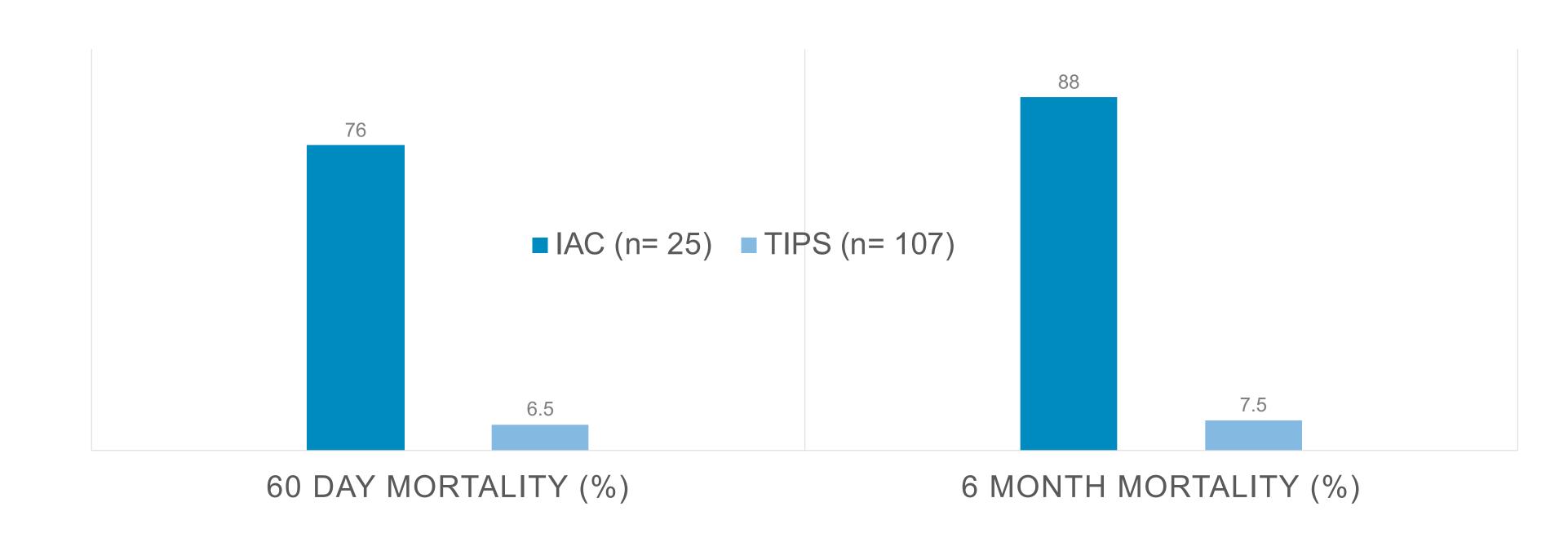
METHODS

- Retrospective review of patients with cirrhosis treated for refractory ascites between 2007 to 2021 at a single center in Charlotte, NC with TIPS or IAC placement.
- Patients undergoing IAC insertion for refractory ascites were not TIPS candidates
- We excluded those with malignant ascites or lost to follow up beyond day after intervention.
- Patient demographics, clinical and laboratory data, time to follow up, survival time from intervention, and cause of death were recorded where available.

Table 1. Patient demographics and characteristics. (*MELD= Model for End Stage Liver Disease-Sodium).

| | TIPS (n=107) | Catheter (n=25) |
|---|--------------------|-------------------|
| Age at catheter insertion | 56.8 | 60.8 |
| Sex (% male) | 62.6 | 80 |
| Cirrhosis Etiology (%) | | |
| Alcohol | 46.2 | 28 |
| Hepatitis B/C | 23.4 | 48 |
| Non-Alcoholic Fatty Liver Disease | 28 | 16 |
| Other | 2.4 | 8 |
| Complications of Cirrhosis (%) | | |
| Encephalopathy | 25.2 | 60 |
| History of Spontaneous Bacterial Peritonitis | 3.7 | 28 |
| History of Variceal bleeding | 41.1 | 28 |
| Total Bilirubin mg/dL (average <u>+</u> standard deviation) | 1.44 <u>+</u> 0.75 | 4.8 <u>+</u> 5.1 |
| MELD-Na* at Intervention (average + standard deviation) | 12.9 <u>+</u> 4.3 | 23.7 <u>+</u> 6.9 |
| Mean follow up (days) | 357.6 | 106 |

Figure 1. TIPS and IAC 60 day and 6 month mortality.



RESULTS

- A total of 136 patients with cirrhosis underwent TIPS or IAC placement for refractory ascites.
- 4 were excluded due to lack of follow up after insertion leaving 132 patients for analysis (Table 1).
- The mean MELD at time of IAC or TIPS placement was 23.7 and 12.9 respectively.
- While 34.6% patients with TIPS placement were found to be deceased by the end of the study period mean follow up of 357 days, the 60 day and 6 month mortality rate was only 6.5% and 7.5% respectively (Figure 1).
- 96% of patients died after IAC placement during the study period mean follow up of 106 days and 76% died within 60 days (Figure 1).
- The most common cause of death was liver failure for both TIPS and IAC groups, 35.1% and 87.5% respectively.

DISCUSSION

- Patients treated with IAC rarely died from catheter related complications, but instead from progressive liver decompensation and failure.
- IAC 60 day mortality was high at 76%.
- These data may aid in planning for end of life care and inform family of the anticipated prognosis.

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