process in hepatic venous outflow tract obstruction depends upon degree, site and length of obstruction, which may influence deterioration despite initial liver specific good scores.[7]

The editorial quoted that a report from Mumbai indicates that anticoagulation alone can achieve a complete clinical and laboratory response in 61% of patients followed up for a median of 21 months[8]. However, our interpretation of the study differs. Only 7/43 (16%) with anticoagulation had documented recanalization on imaging; whereas 9/11 (81.2%) who underwent radiological intervention had restoration of the outflow tract.

The success of the angiographic intervention was objectively documented by restoration of blood flow across the narrowed segment with its phasic respiratory variation. We agree that documentation of the disappearance of the pressure gradient across the obstructed segment would have objectivized the response more robustly. But our follow-up and associated clinical response albeit subjective was additional inputs for response.

As TIPSS results in the portal venous inflow bypassing the liver, it is not physiological in comparison to angioplasty. Long-term follow-up comparisons of hepatic venous outflow tract obstruction patients undergoing angioplasty/stenting and TIPSS were needed to establish whether a physiological approach should be first line of therapy in such patients and TIPSS should be offered with failure of such intervention. We also devised a simple prognostic score (AIIMS-HVOTO Score) which can identify patients for liver transplant in hepatic venous outflow tract obstruction patients.

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Editorial: the burden and aetiology of liver cirrhosis, and the risk of death

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Assessing the burden of liver cirrhosis remains pertinent from a public health standpoint, as end stage liver disease is among the top 10 leading causes of death worldwide.[1–3] Beyond attributable cause of death, liver cirrhosis is a chronic condition that can necessitate substantial medical care. As a result, cirrhosis accounts for significant health care costs with estimates upwards of $2.5 billion per year in the USA alone.[4] Although there have been many studies on the incidence, prevalence and natural history of liver cirrhosis, studies generated from the Swedish health care system offer specific advantages due to the nature of their single-provider, well-characterised public health care system.[5]

In a recent issue of *Âlimentary Pharmacology and Therapeutics*, Nilsson *et al.* characterised the overall burden of cirrhosis in southern Sweden from 2001 to 2011.[6] Using the population-based medical registries in Sweden, the authors identified 1317 patients with cirrhosis. Patients were followed up for a median of 4.3 years and the annual incidence of liver cirrhosis was estimated as 14.1/100 000. Alcoholic related liver disease was the

overwhelming aetiology (58%) and ascites was the primary clinical manifestation at the time of diagnosis (43%). The 1-, 5- and 10-year survival rates were found to be 79%, 47% and 27% respectively. Furthermore, men and patients with HCV with concomitant alcoholic liver disease had the worst survival rates.[6]

This study has several strengths including a large sample size, length of longitudinal follow-up and robust data available for review given the medical infrastructure in Sweden. There are a few notable limitations and unaddressed questions that remain however. Inherent to any retrospective study are the limitations in terms of accurately identifying patients with cirrhosis, capturing complications from cirrhosis, and relevant comorbidities.[7] Assessing the presence of alcohol abuse is particularly difficult, and in this study is likely under-represented as it was defined using only presence of these diagnoses in the patient's medical chart. The author's approach to categorization of aetiology of liver disease is also of interest, specifically the reliability of the diagnosis of NASH and the separation of NASH and cryptogenic cirrhosis. It would have been of interest to also evaluate these two groups combined given that prior studies have demonstrated that significant proportions of patients defined as having cryptogenic cirrhosis were likely due to NAFLD.[8] Last, it would be of interest to outline the rank in the order of aetiologies of cirrhosis on burden of death.

Overall this study adds to the existing body of literature on the global disease burden, natural history, and associated morbidity and mortality related to end stage liver disease. In particular, this study emphasises the importance of addressing modifiable risk factors, specifically alcohol overuse as this aetiology portended a worse prognosis in this cohort. In the wake of the impact of direct-acting anti-virals for chronic hepatitis C, alcohol related liver disease and non-alcoholic fatty liver disease will account for progressively larger proportions of the patient population with chronic liver disease and thus represent target areas for research and clinical attention.[9] Future studies are needed to identify means to improve outcomes among these high risk patient populations.

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