

valuable option with a higher survival rate than that reported by the authors, as shown from an analysis of 2 distinct cohorts of European patients (Fig. 1). However, these excellent results may be because of the patients assessed, who were generally older and diagnosed with disease at an earlier stage than in China.<sup>4</sup> Chinese patients studied in Aji *et al.*'s article<sup>1</sup> are more similar to those diagnosed 30 years before in the same European centers;<sup>2,5</sup> in addition, the necessary strict follow-up of the anti-infective treatment which is the rule in Europe and includes surveillance of the occurrence of AE biliary/vascular complications and of albendazole adverse effects, and plasma albendazole sulfoxide measurement,<sup>6</sup> is likely more difficult in Chinese patients living in remote villages far from reference centers. These considerations have to be taken into account, as European surgeons may be tempted by the impressive but risky procedure proposed by their Chinese colleagues.

### Conflict of interest

The authors declare no conflicts of interest that pertain to this work.

Please refer to the accompanying ICMJE disclosure forms for further details.

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### Supplementary data

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## Alcohol-associated liver disease, not hepatitis B, is the major cause of cirrhosis in Asia

To the Editor:

We read with interest the article “Burden of liver diseases in the world” by Asrani *et al.*<sup>1</sup> The authors have done an excellent job in reviewing the epidemiology of various liver diseases across the world. However, the authors have in this article stated in the section on ‘Global Mortality’: ‘The causes of cirrhosis vary: in Western and industrialised countries alcohol and non-alcoholic fatty liver disease have overtaken viral hepatitis as the pri-

mary causes, whereas in China and other Asian countries hepatitis B continues to be a major cause’.

We do not agree with this statement for the reasons cited below. In fact, the authors themselves have also contradicted this assertion when they list 7 Asian countries in the top 10 countries with high global burden of alcohol-related cirrhosis mortality in Table 4 of their article. Excluding Moldova, Sierra Leone and Uganda, the remaining countries are all Asian coun-

**Table 1. Aetiology of cirrhosis of the liver reported from different regions of India.**

Region [References]	Total patients	Aetiology of cirrhosis of liver [%]						
		Alcohol-related	Hepatitis B	Hepatitis C	Autoimmune Hepatitis	NAFLD-related	Cryptogenic	Miscellaneous/others
New Delhi [Northern India] <sup>2</sup>	277	49	2.8	9.4	NA*		38 <sup>#</sup>	1
Jabalpur [Central India] <sup>3</sup>	100	46	19	3	NA	NA	NA	NA
Hyderabad [Southern India] <sup>4</sup>	64	60.94	3.1	1.6	0	17.2	14.1	0
Kolkata [Eastern India] <sup>5</sup>	23	43.5	4.3	0	4.3	4.3	39.1	4.3
Mumbai [Western India] <sup>6</sup>	110	48.2	10	5.5	7.3		26.4 <sup>#</sup>	2.7
Guwahati [Northeast India] <sup>7</sup>	1,000	72.2	6.2	2.3	0.9	1	13.6	3.8
Cuttack [Eastern India] <sup>8</sup>	123	65.04	11.38	0	0		23.57 <sup>#</sup>	0

NA\* = Data not available in the publication; #Cases due to NASH and Cryptogenic clubbed together. NAFLD, non-alcoholic fatty liver disease; NASH, non-alcoholic steatohepatitis.

tries, although Egypt being transcontinental may also be considered an African country.

Further, India too is a major region of Asia, and home to almost one-third of the population of Asia. The article does not show any data on the trends of AALD in India, and it is obvious that Indian data from different regions of India have not been considered before arriving at such a conclusion. In India, the epidemiology of cirrhosis of the liver has changed considerably over the past few years. In a study from Northern India analysing aspartate aminotransferase to platelet ratio index and hepatic venous pressure gradient in cirrhotics, Kirnake *et al.* reported that alcohol was the most common (49%) cause of cirrhosis in their study.<sup>2</sup> Punekar *et al.* from Central India also reported that alcohol was the most common cause (46%) of cirrhosis in their study patients.<sup>3</sup> Further, alcohol was the primary cause of cirrhosis in 60.93% in another study from Hyderabad in Southern India.<sup>4</sup> While, other studies from Kolkata in the East and Mumbai in the West also showed that alcohol was responsible for cirrhosis in 43.5% and 48% of patients, respectively.<sup>5,6</sup> In fact a study by Bhattacharyya *et al.* from Guwahati in the Northeast revealed that out of 1,000 consecutive cirrhosis patients, alcoholic cirrhosis was diagnosed in 722 patients (72.2 %).<sup>7</sup> Our own study conducted in Odisha in Eastern India also revealed that alcohol was the most common cause of chronic liver disease.<sup>8</sup> Table 1 shows the aetiology of cirrhosis of the liver reported from different regions of India. Besides, we also conducted another retrospective analysis to study the temporal trends in the aetiology of chronic liver disease in coastal Eastern India from 2005 to 2016. This study clearly demonstrated that the burden of alcohol-related chronic liver disease was significantly increasing in comparison to other causes; the proportion of chronic liver disease due to alcohol increased over the years from 38.6% in 2005 to 60.2% in 2016.<sup>9</sup>

To conclude, in the light of the data cited above, it would be inappropriate to say that hepatitis B and not alcohol-related liver disease is the major cause of cirrhosis in Asia. As in the rest of the world, alcohol is the numero uno cause of cirrhosis in Asia too.

**Conflict of interest**

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**Authors' contributions**

All authors contributed equally to the concept and design, collection of information and writing of article.

**Supplementary data**

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