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# Portal hypertension is a key determinant of the risk for liver-related events in non-alcoholic fatty liver disease

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## To the Editor:

1 Studies on the natural history of non-alcoholic fatty liver disease (NAFLD) are crucial  
2 for the understanding of the specific risk of developing NAFLD-related complications.  
3 Hence, the study by Allen AM et al.(1) describing the clinical course of 5123 NAFLD  
4 patients over a median follow-up time of 6.4 years is a valuable contribution to the  
5 field. When drawing conclusions, especially on the expected disease course, it is,  
6 however, important to reflect on the specific characteristics of the respective patient  
7 cohort from which results have been obtained. After insightful discussions with Prof.  
8 Dr. Sven Francque, who also contributed his expertise on the topic of portal  
9 hypertension in NAFLD(2, 3), we would like to emphasise some important issues:

10 First, the selection of any patient cohort (and especially of NAFLD aetiology) by using  
11 codes/key words may be problematic and prone to selection bias. In their study(1)  
12 the authors state that within 20 years after initial NAFLD diagnosis “other liver  
13 disease(s)” were diagnosed in 26% of patients. Since fatty liver disease may be  
14 multifactorial and can co-exist with other aetiologies, fuelling the current debate on  
15 metabolic associated liver disease (MAFLD), NAFLD still could be a concomitant  
16 driver of liver disease progression in these patients with other aetiologies. Also, while  
17 NAFLD diagnosis can be suspected by a combination of clinical and radiological  
18 markers, it is interesting to see that without imaging confirmation of steatosis still a  
19 substantial number of patients were included while only a minority was individually  
20 reviewed by the authors (1101/1171 patients with no liver images available were  
21 included, with only 442 (37.7%) reviewed; 370/453 patients with no mention of  
22 steatosis or cirrhosis on the available imaging were included, with only 223 (50%)  
23 reviewed).

24 Secondly, the authors present interesting data on the progression from compensated  
25 NAFLD cirrhosis to decompensation/death. However, portal hypertension (PH) - the  
26 main driver of hepatic decompensation(4) - should have been characterised in more  
27 detail. Splenomegaly and portosystemic collaterals, two parameters defining PH,  
28 thus, reflecting cirrhosis severity, were apparently not assessed as potential  
29 predictors of decompensation, whereas platelet count and non-bleeding varices  
30 representing two other surrogates for PH were. Importantly, benefits of therapies  
31 (*e.g.* non-selective betablockers and/or statins) that lower portal pressure and hence  
32 likely impact on the disease course (particularly variceal bleeding) were not  
33 investigated.

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