# Investigating the role of Vitamin D in NAFLD: is liver biopsy justifiable in children?

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Dear Editor,

We read with interest the article by El Amrousy et al. [1] suggesting a potential benefit of vitamin D supplementation in the treatment of NAFLD in children. While the study has the remarkable point of strength of a prospective clinical trial with a control, we take exception to some aspects of the study design and to the authors' conclusions.

Children included in the trial underwent two liver biopsies in only 6 months. Performing a liver biopsy is stressful for a child, involves rare but well-reported risks (related to anesthesia, possible bleeding and iatrogenic infection, tissue trauma) and may even leave a permanent skin scar. We wonder on the base of which evidence the authors decided for such an invasive short-term protocol.

Looking at the study results, even if the authors remark an equal hypocaloric diet for all included children and no changes in their physical activity, in the placebo group, BMI increased in a statistically significant way ($p$ 0.036). That would suggest some differences in lifestyle changes between the two groups, possibly affecting the actual vitamin D role on anthropometric and laboratory parameters and liver histology.

Finally, the authors conclude that adjuvant vitamin D supplementation is recommended in children with NAFLD. While a 2015 study suggested a possible role of vitamin D in NAFLD pathogenesis [2], larger and more recent studies showed a lack of evidence of vitamin D association with NAFLD severity and progression [3, 4].

While questioning the invasiveness of the design of this study, we suggest that far more data are need before routinely recommending vitamin D supplementation in NAFLD.

## Declarations

**Conflict of interest** The authors declare no competing interests.

## References

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