Kim et al. investigated the association of serum total testosterone with nonalcoholic fatty liver disease in 495 male probands who underwent abdominal ultrasound, abdominal CT scans (to measure visceral adipose tissue, VAT), and measurement of total serum testosterone. Patients with alcohol consumption >140g/d or hepatitis were excluded from the study. The authors find that probands with NAFLD had significantly lower total testosterone levels. The result is that the association between total testosterone levels and the odds ratio for presence of NAFLD was significant, even after adjusting for potential confounders such as age, BMI, diabetes, HOMA-IR, and VAT.

Comments:
The manuscript is well written and the results are clearly presented in three tables and one figure. The results seem valid, are in accordance with previous reports from other groups and are of interest, as it goes beyond previous studies by inclusion of VAT measurement.

Major Revision:
1. Study design: please state whether this cross-sectional study was a prospective or retrospective study.

2. It is understood that the sample is a convenience sample because only the participants who underwent measurement of testosterone, ultrasound, and abdominal CT scans could be included.

The original population was comprised of healthy men visiting the clinic for routine health checkups. It appears that roughly 7200 of 28600 men then received an abdominal CT scan and ultimately 495 of those men could be included in the study. I wonder why a CT scan was ordered in healthy men at a routine checkup? What conditions required a CT and what was found? Did these men then receive a diagnosis from those CTs or the condition leading to the CT and can therefore not be labeled “healthy” anymore?

My concern is: if the CT scan was not a pre-planned diagnostic tool in a prospective study, then including only men that required a CT scan for medical reasons harbours the risk of introducing a strong selection bias. The present study seems to include only those men that were selected because they received
a CT scan for medical reasons that are left unexplained. As it is exactly this CT scan that allows measurement of VAT, and that sets this study apart from others, it is absolutely necessary to explain why a CT scan was ordered in the first place. The “Methods” part starts with “This study is … one of healthy … men …”. Is that still true after examining the reasons for and results of the CT scans?

In short, the reader needs to know:
- for what reason were CT scans ordered?
- what were the main findings in the CT scans of these men, the study population: are they still healthy?
- for the discussion: do the CT scan results suggest a selection bias?

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.