CORRESPONDENCE

Study of Prevalence of Nonalcoholic Fatty Liver Disease (NAFLD) in Type 2 Diabetes Patients in India (SPRINT)

M Premnath *

Sir

I read with interest the original article entitled “Study of Prevalence of Non Alcoholic Fatty Liver Disease (NAFLD) in Type 2 Diabetes patients in India (SPRINT)” by Sanjay Kalra et al published in JAPI July 2013 issue Vol 61 12-17. I have some observations

1. This is not a population based Epidemiological study
2. Patients recruited were from the clinics of various doctors
3. How can this sample represent the population?
4. How can one use the words, prevalence and Incidence when the study does not represent the population at all
5. NAFLD being diagnosed with only a mild elevation of liver enzymes, when there are any number of causes for the elevation of AST and ALT. Have the other causes been ruled out?
6. Not even an US abdomen has been done to show ectopic fat deposition in the liver, how one can be sure that, just a slight rise of liver enzymes, represent fatty liver disease?
7. Liver biopsy is confirmatory; it has not been done at least in a few cases to confirm what they say.

Do you think the study design and inference is correct? Does it not give a wrong message to the readers? I am surprised to see such a study making its appearance in JAPI. Hav’t the reviewers questioned these aspects?

Reply from Author

Sanjay Kalra *

Sir

We thank the critic for reading with interest the original article entitled “Study of Prevalence of Non Alcoholic Fatty Liver Disease (NAFLD) in Type 2 Diabetes patients in India (SPRINT)” †, published in JAPI July 2013 issue, along with an accompanying editorial by Tandon RK. ²

Putting pen to paper, he observes that this is not a population based epidemiological study, and that patients recruited were from the clinics of various doctors. This is correct, and is stated in our title. This is not a population based or epidemiological study because, as the title says- the study is being done on type 2 diabetes patients. Therefore it is not necessary to study thousands of community dwellers to detect diabetes...
and then look for fatty liver in them.

He questions how this sample can represent the population? The population here is people with diabetes. In order to obtain the study population for testing - one has to look for diabetic patients from various clinic. For example, to know the prevalence of silent ischaemia in diabetes, it is not necessary to do a GTT on thousands of persons, detect diabetes in a few, and then do stress tests in them all.

The author also wonders how one can use the words, prevalence and incidence when the study does not represent the population at all. This sample does represent the population because the population that the authors have chosen to study is the very select population of type 2 diabetics. The use of words “incidence” and “prevalence” is not restricted to community studies-these words can be used in clinic and hospital-based studies as well. One must also note that the authors of SPRINT have gone to great effort to ensure a pan-India representation of subjects.

Criticism is levelled that NAFLD is diagnosed with only a mild elevation of liver enzymes, when there are any number of causes for the elevation of AST and ALT. Have the other causes been ruled out? It is also pointed out that not even an US abdomen has been done to show ectopic fat deposition in the liver, how one can be sure that, just a slight rise of liver enzymes, represent fatty liver disease? The authors have mentioned the common causes in the exclusion criteria. The accompanying editorial clearly states, and I quote: “—surrogate markers have been used to diagnose NAFLD. Ultrasound - OR elevated liver enzymes are the most common markers—”.

A further point has been raised about the lack of liver enzymes. We again quote from the editorial “Liver biopsy — is not practical and most patients shy away from getting it done.” Asking for an invasive investigation when liver enzyme determination can suffice is fraught with ethical concerns as well. Doing Ultrasounds and liver biopsies at all 189 centres across India, while ensuring no inter-observer bias, would be a challenging task for any investigator.

Our colleague pointedly asks: Do you think the study design and inference is correct? Does it not give a wrong message to the readers? I am surprised to see such a study making its appearance in JAPI. Haven’t the reviewers questioned these aspects? We strongly feel that the study design and inference are correct, that no wrong message has been conveyed to the readers of JAPI, which must be commended for its robust and strict peer review process.

At the same time, we thank the author for his comments: such discussion is an important pedagogical tool, and serves to improve our understanding of science. This exchange of thoughts is necessary if medicine is to progress further.

References
