Reviewer's report

Title: Prevalence of Non-Alcoholic Fatty Pancreas Disease (NAFPD) and Its Risk Factors among Adult Medical Check-Up Patients in a Private Hospital: A Large Cross Sectional Study

Version: 2  Date: 1 April 2015

Reviewer: Chih-Yuan Wang

Reviewer's report:

The authors report one retrospective study in adult medical check-up subjects, and found the prevalence of non-alcoholic fatty pancreas disease (NAFPD) to be 35%. The authors further analyzed the demographic data and revealed that male gender, age >35 years, higher systolic and diastolic blood pressures, fasting blood glucose >100 mg/dl triglycerides, total and LDL-cholesterol, and lower HDL cholesterol levels, to be the risk parameters. The authors concluded that fatty pancreas has significant association with metabolic factors and it might have an important role in risk of malignancy.

Here are the comments for this article:

1. The prevalence of NAFPD was ever reported to be around 12~16% via abdominal ultrasound, abdominal MRI or EUS in Korea, Taiwan and Hong Kong in recent years. However, it is really difficult to estimate the prevalence of NAFPD in general population due to the limitation of detecting technique and cost for measuring fatty pancreas. Therefore, the subjects receiving medical check-up seemed to be one reliable population to estimate the prevalence. However, this estimation usually will be over-estimate because such subjects may belong to high social economic groups in certain areas and the authors had raised such discussion. The report in Hong Kong was carried out on 685 healthy volunteers from the general population, with average aged around 52 in subjects of fatty pancreas. The report in Taiwan was carried out in 8097 health check-up subjects, with average aged around 56 in subjects of fatty pancreas. In this report, the studied subjects were around 43 years old, younger compared with other reports. Such difference should be mentioned in discussion.

2. On the other hands, this study shared the same trend of NAFPD in comparison with prior reports in male gender, middle aged man, and parameters of metabolic syndrome to be the independent risk factors in subjects with fatty pancreas.

3. The results of diabetes mellitus fail to show significant meaning in multivariate analysis may be due the small sample size in subgroup statistics. This point should be point out in discussion.

4. The abdominal ultrasound was a cheaper, convenient and reproducible technique in detecting fatty pancreas in comparison with MRI. But ultrasound was a qualified technique and MRI belonged to be quantified. MRI, expensive
technique, could indicate more accurate evaluation in fatty pancreas. Such points was suggested to be discussed in discussion.

5. In real world, there were still very few reports in NAFPD in different countries. The difference of fatty pancreas in various countries, races are still to be enigmatic. Such reports of prevalence from big data analysis should be encouraged to explore the real face of ectopic fatty infiltration in pancreas.

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

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

No competing interests in this comments.