The study entitled “Associations of four obesity indices with diabetes mellitus in Korean middle-aged and older adults: A population-based cohort study” tries to evaluate the association between these indices and DM according to age and sex in Korean middle-aged and older adults. The method (analysis) and the regression model-building approach should be explained and shown clearly for ease of understanding. The authors should concise their Introduction and Discussion to focus on the study. In addition,

1. Please explain your research gap before the objective in the introduction.
2. A little discussion/literature review was observed in the introduction about the association of four obesity indices and DM factors.
3. Reviewers recommended showing the formula to calculate the sample size or provide a reference, which formula they follow. In addition, please provide a flow chart to reach a final sample.
4. In “Diabetes mellitus and variables” please explain all categories and how you categorized them. If needed, provide references. Also, include a separate part of dependent and independent variables.
5. The term “Logistic analysis” is missing in the “Statistical analysis”.
6. “The crude model was not adjusted; Model 1 was adjusted for confounders, including age, sex, collection year, collection site, education level, income level, smoking, drinking, TC, and SBP” paraphrase these lines. Those lines are confusing.
7. “Figure 1” or flow chart should explain in “data sources and study population”.
8. Please follow any single style to represent OR results. “(OR=0.44, 95% CI= 0.24, 0.81)” keep this type of result in whole manuscript.
9. Increase crosstab results in detail.
10. There is a great deal of room for improvement in both writing and grammar. I advise the authors to work with a writing coach or copy editor to improve the flow and readability of the text.
11. The authors just describe the model’s name but it is unclear how the model was established such as which method was followed (i.e.; forward entry, backward selection, enter method, etc.).
12. Please concise the discussion. Minimum half.
13. I will recommend representing Figure 2 in tables.
14. It is not clear, why model 1, Are there any other models?
15. Where is the figure of AUROC curve?