Name of journal: World Journal of Clinical Cases
Manuscript NO: 74499
Column: Retrospective Study

Reviewer #1:

1. How was the sample size determined? Was there power to detect differences?

Answer: Thank you for your valuable comments. Fundamentally, the sample size for this study is the number of cases that satisfy the study conditions (found by chance, prime importance). Based on the following facts, we believe that the sample size of this retrospective study is not considered to be of (statistical) concern unlike in the prospective study.

Retrospective studies use statistical power rather than the calculation of sample sizes [1]. A rule for quickly determining sample size is 10 cases (charts) per variable, in order to obtain results that are likely to be both true and clinically useful [2]. While the literature generally holds ten events per predictor as an accepted norm [2-4], others have suggested that it is acceptable to have a minimum of seven or five events per predictor [5].

References

1. Kim, J. and B.S. Seo, How to calculate sample size and why. Clin Orthop Surg, 2013. 5(3): p. 235-42.
2. Sackett DL, Haynes RB, Guyatt GH, Tugwell P. Clinical epidemiology: A basic science for clinical medicine. Boston, MA: Little, Brown & Company; 1991.
3. Gearing, R.E., et al., A methodology for conducting retrospective chart review research in child and adolescent psychiatry. J Can Acad Child Adolesc Psychiatry, 2006. 15(3): p. 126-34.
4. Harrell, F.E., Jr., et al., Regression models for prognostic prediction: advantages, problems, and suggested solutions. Cancer Treat Rep, 1985. 69(10): p. 1071-77.

5. Raykov T, Wideman KF. Issues in applied equation modeling research. Structural Equation Modeling. 1995;2:289–318.

Student's t-test was used to compare PET parameters between two groups (malignant vs benign, premalignant vs benign, and malignant vs premalignant). As each of the three groups in this study (classified as malignant, premalignant, and benign) had greater than 10 cases and there showed statistically significant results ($p < 0.05$) of the t-test, we believe that there is statistical validity and consider the t-test results sufficiently explain the differences between groups. It has also been confirmed by a professional statistician.

2. Why reschedule the examination time for cases with blood glucose level ≥ 11 mmol / L ? Is there any literature support?

Answer: As the fluorodeoxyglucose (FDG) is a glucose analogue that is transported into cells via glucose transport protein (GLUT), increased blood glucose levels decrease 18F-FDG uptake in tumours because of direct competition between binding sites and enzymes [1]. F-18 FDG PET/CT procedure guidelines from Society of Nuclear Medicine and Molecular Imaging (SNMMI) [2] and European Association of Nuclear Medicine (EANM) [3] describe the rescheduling of the examination in hyperglycemic states.

References

1. Wahl RL, Henry CA, Ethier SP. Serum glucose: effects on tumor and normal tissue accumulation of 2-[F-18]-fluoro-2-deoxy-D-glucose in rodents with mammary carcinoma. Radiology. 1992;183:643–647.

2. https://s3.amazonaws.com/rdcms-snmmi/files/production/public/docs/jnm30551_online.pdf

3.

https://www.eanm.org/publications/guidelines/2015_GL_PET_CT_TumorImaging_V2.pdf

3. The highlights of the results are not so prominent. The comparison between the images and tables in the results is confusing, so it is suggested to consider using the appendix for display.

Answer: Thank you for your valuable comments. The text was modified to weight meaningful results. As approximately two-thirds of incidentally observed focal hypermetabolic colorectal areas were malignant or premalignant, an accent was given to the "further evaluation" when confronted with them. Tables and figures were reorganised to provide clarity to the readers and to eliminate confusion.

4. Language needs polishing.

Answer: Yes, language polishing on the revised manuscript was done by a professional English editing company. Thank you.

Reviewer #2:

This study evaluated the clinical significance of incidental focal colorectal FDG uptake on F-18 FDG PET/CT in the diagnosis of colorectal malignant/premalignant lesions. The detection rate of incidental focal colorectal uptake was 0.53% and 61% of the eligible lesions were malignant or premalignant. The authors concluded that SUV max was an independent diagnostic parameter for malignant/premalignant lesions, and suspicious focal colorectal FDG uptake requires attention and further evaluation. This paper was well written with appropriate methodology and appealing images. This paper may be strengthened if the following points were considered for further review. Specific points:

1. Population bias: Since this study analyzed the individuals undergoing PET/CT under presence/suspicious of hypermetabolic pathologies, these group of patients may have increased incidence of malignancy compared to general population. In addition, this study excluded the individuals for whom histopathological reports were not available (or not confirmed). These issues can be added to the" limitations".

Answer: Thank you for your valuable comments. We cannot deny your comments, and we deeply agree with it. Based on your comments, relevant content was added or modified.

2. Redundant paragraph: The 5th paragraph (starting with "Among the 24 malignant lesions,…") discussed about sideness of colorectal legions. The discussion was based on the findings of only 24 malignant legions found incidentally on PET/CT, therefore, the comparison to other large epidemiologic data may be less meaningful. The authors may be advised to shorten or omit this paragraph.

Answer: Yes, we accepted your comments and modified the text. We sincerely appreciate your valuable comments.

We deeply appreciate your attentive review, advice, and valuable time. Thank you.