Peer Review File

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Reviewer A

The Authors did a good job highlighting the significance, methodological strengths, and limitations of the study conducted by Kiernan et al., focusing on the efficacy of probe-based near-infrared autofluorescence (NIRAF) technology in parathyroid identification during parathyroidectomy.

The authors provide constructive feedback in appropriate language. I have no suggestions for editorial commentary improvement.

<u>Response:</u> Thank you very much for your positive feedback, we value your time and attention to our editorial commentary.

Reviewer B

The article needs more in-depth analysis.

There is nothing about the role of the intra operative PTH dosage and nothing about the role of the preoperatory US and scintigraphy identification to compare with the Probe based Niraf technique.

Another doubt is about the senior surgeons: why he performs a bilateral cervical exploration and what are the real benefits/risks for the patient compared to the focused parathyroidectomy.

<u>Response:</u> We thank you for your feedback on our manuscript. While we appreciate your suggestions, we would like to clarify that the scope of this editorial commentary was limited to discussing the findings and implications of the study at hand, which does not evaluate the role of intraoperative PTH dosage or compares preoperative imaging techniques with NIRAF. We have included a sentence addressing these important aspects related to the management of primary hyperparathyroidism (see paragraph lines 82-91), but these points diverge from the topic of the article by Kiernan et al and thus are outside the scope of this editorial.

Reviewer C

This article is well written and only requires minor changes. See below for suggested comments: Line 11-12 – opening line in the abstract, may want to say "... even for high volume surgeons." *Response*: Thank you for your valuable feedback on these minor changes. We have modified the text as advised (see line 11-12).

Line 41 – "The senior surgeon..." delete the plural form of surgeons.

Response: Thank you for pointing this out. We have modified the text as advised (see line 45).

Line 41-42- Can you expand on their methodology to help the reader understand exactly what was done and how this is different from other studies. May wish to describe whether this was for primary hyperparathyroidism (junior) and the senior staff (tertiary/secondary hyperparathyroidism). Was bilateral neck exploration done in nonlocalizing adenomas?

<u>Response</u>: Thank you for your suggestion. We acknowledge the importance of providing a more thorough description of the study's methodology We have expanded on this section and have included details on included/excluded patients and regarding the use of BNE (see paragraph starting page 1, line 36).

Line 43-46 Delete this paragraph, unnecessary, and redundant.

<u>Response</u>: We have modified our text as advised and have removed this paragraph (see lines 52-55).

Line 63 – End of this line provides references.

<u>Response</u>: Thank you for your observation regarding the need for references following "as noted by other authors". We have now added references (see page 2, line 72).

-Several areas of redundancy where the same findings are repeated, may wish to find a different way to state your point or reduce redundancies. I.e., "The use of probe-based NIRAF holds significance in enhancing surgeon confidence, reducing frozen section analyses, and potentially lowering costs associated with parathyroidectomy" is repeatedly used.

<u>Response</u>: Thank you for highlighting the issue of redundancy throughout the editorial. We agree with your concern and have revised the text to avoid repetition/redundancy. We have removed the sentence (line 64-67) and have revised the paragraph in page 3 (lines 92-101) to express key findings while eliminating unnecessary repetition.