

## Peer Review File

Article Information: <https://dx.doi.org/10.21037/gs-2024-559>

### Reviewer A

#### **Comment 1:** Excessive Length and Complexity:

The Results section is too lengthy and contains excessive details that could be presented more concisely. For instance, the breakdown of different article types (e.g., "34 articles discussed thyroid surgery and thyroid-associated endocrine tumors, 13 articles discussed the diagnosis of thyroid nodules, and 5 articles discussed postoperative complications in benign goiter surgery") could be summarized more succinctly. The key findings should be highlighted clearly without overwhelming the reader with too much data.

**Reply 1:** Thank you for your comments, this article mainly introduces the leading research in this field. Therefore, apart from the necessary introduction, we have streamlined the "Results" section, deleted all the lengthy and unnecessary paragraphs, and simplified the number of citations in brackets to avoid lengthy paragraphs. In the first paragraph, we changed the way of explanation (in red font to avoid length), and deleted the last paragraph of the number of citations. In "3.2 Country Analysis", we deleted the average number of citations and the last paragraph. In "3.3 Author Analysis", we deleted the specific number of citations in brackets after the author introduction and the source agency description. In "3.4 Institutional Analysis", we deleted the description of the number of citations in brackets after some institutions and deleted the last paragraph. In "3.5 Journal Analysis", we deleted the description of the types of articles published by the New England Journal of Medicine and The Lancet to avoid length.

**Changes in the text:** Already explained in the reply.

#### **Comment 2:** Unclear Subsection Numbering:

The numbering system for subsections (3.1, 3.2, etc.) is inconsistent and unclear because there is no preceding section numbered as "3." It would be beneficial to either introduce a main section (e.g., "3. Results") or remove the numbering altogether for better readability.

**Reply 2:** Thank you for your comments, thank you for pointing out this problem. We have numbered each chapter title as 1, 2, 3, etc.

**Changes in the text:** Already explained in the reply.

#### **Comment 3:** Unnecessary Information:

The mention of the "Median year of article publication" (2008, ranging from 1998–2018) does not seem to add substantial value to the findings. Since the key focus is on citation impact and trends in thyroid surgery research, this detail could be omitted without affecting the overall analysis.

**Reply 3:** Thank you for your comments, after reviewing it in detail, we agree with your opinion and have deleted "The median year of article publication was 2008 (1998 -2018). " from the first paragraph of "3.1 Publication and citation" in the original manuscript.

**Changes in the text:** the first paragraph of "3.1 Publication and citation"

**Comment 4:** Repetitive and Redundant Statements:

Several sections reiterate similar points. For example, the description of the most-cited article published in THYROID (2015) is explained in detail, and later, its importance is reiterated. A more streamlined approach would enhance clarity.

**Reply 4:** Thank you for your comments, we reviewed in detail the descriptions of the most cited articles published in THYROID (2015) and found that they were mentioned in both "3.1 Publication and citation" and "Discussion". Therefore, we deleted and simplified the content mentioned in "3.1 Publication and citation". Then a detailed introduction is given in the "Discussion" section.

**Changes in the text:** the fifth paragraph of "3.1 Publication and citation"

**Comment 5:** Inconsistent and Vague Explanations:

The statement "the top ten countries with the highest total citations in thyroid surgery research were all developed countries. This may be because these countries have more advanced experimental equipment and theoretical foundations" is speculative. If this assumption is made, it would be better to support it with references or additional evidence.

**Reply 5:** Thank you for your comments, we reviewed this paragraph and found that such speculation is unreasonable and inappropriate in the results section, so we chose to delete this sentence to make the article appear reasonable.

**Changes in the text:** "3.2 Country analysis", paragraph 5

**Comment 6:** improvement in Keyword Analysis:

The keywords analysis is useful, but the interpretation could be expanded. For instance, "Management" being the second most frequent keyword suggests the importance of treatment guidelines, which aligns with the high citation of consensus statements. This connection could be explicitly stated to strengthen the analysis.

**Reply 6:** Thank you for your comments, we reviewed this paragraph and found your suggestion very useful, so we added a sentence after the keyword "management" in this paragraph, which

shows the conclusion that industry guidelines are important. The text has been marked with red font.

**Changes in the text:** “3.6 Keywords analysis”, paragraph 4-6

**Comment 7:** Clarification of Collaboration Data:

The section on country and institution collaborations provides useful insights, but some points are vague. For example, "the Mayo Clinic in the USA collaborated widely with 31 institutions around the world"—it would be clearer if the key collaborative trends or the nature of these collaborations were briefly explained rather than just stating the number of partnerships.

**Reply 7:** Thank you for your comments. In “3.4 Institutions analysis”, we have evaluated Mayo Clinic’s key partners and trends, as well as their implications for the industry, which are indicated in red.

**Changes in the text:** “3.4 Institutions analysis” last paragraph.

## **Reviewer B**

**Comment 8:** It summarises the leading research and frontier in the thyroid surgery over the last century. It would be nice to have subheadings of different research areas (e.g. BRAF mutation, nerve monitoring, Thyroid imaging...) and discuss papers related to those areas separately.

**Reply 8:** Thank you for your comments, we agree with your request. We have subtitled the discussion section and divided it into five parts: 4.1 Study the overall trend, 4.2 Research progress on thyroid cancer and the significance of BRAF mutation, 4.3 Thyroid Nodule Guideline Development, 4.4 Diagnosis of thyroid nodules and nerve monitoring Development, and 4.5 Limitations. It not only introduces the significance of BRAF, nerve testing, and thyroid imaging, but also introduces the research and development of thyroid cancer, making the discussion clearer. The details are indicated in red font in the discussion.

**Changes in the text:** Red font in discussion

## **Reviewer C**

**Comment 9:** This is a bibliometric analysis to identify the 100 most-cited articles in the field of thyroid surgery. The citations of the 100 most-cited articles published between January 1990 and January 2023 ranged from 279 to 7073. The 100 most-cited articles were published by 25 countries,

over half of which were from the USA. Harvard University and University System of Ohio from the USA (The United States of America) were the top institutions. Schlumberger M from the Institute Gustave Roussy and University Paris Sud was the most productive author with 10 articles. The top-cited article was published by Haugen Bryan R in THYROID (2015). The keywords with the most co-occurrences were carcinoma, followed by fine-needle-aspiration, management, follow up, biopsy, radioactive iodine, and braf (v600e) mutation. In particular, thyroid papillary carcinoma, fine needle aspiration, is a research hotspot and potential direction in the future for thyroid surgery.

The paper is interesting.

I suggest only to cite and discuss two other papers:

- doi: 10.1089/105072503322021142

- doi: 10.1089/thy.1995.5.25

that suggested for the first time the importance of the follow-up by neck ultrasonography in thyroid cancer both in adults and in children.

**Reply 9:** Thank you for your comments. We agree with your opinion and have cited these two papers in 4.3 Thyroid Nodule Guideline Development, as indicated in red font.