



The research trends in total mesorectal excision in the past twenty years: a bibliometric analysis – correspondence

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We recently have perused with profound interest the scholarly work authored by Pan *et al.*, titled ‘Bibliometric analysis and visualization of research trends in total mesorectal excision in the past twenty years’¹. The primary objective of this inquiry was to meticulously scrutinize the evolving research dynamics, collaborative endeavors, and the dissemination of knowledge pertaining to Total Mesorectal Excision (TME) during the preceding two decades. Given the pivotal role of TME in the context of locally advanced or node-positive rectal cancer, it is only fitting to acknowledge the profound significance of this study^{2,3}. Nevertheless, we wish to proffer a series of considered recommendations concerning the information retrieval methodologies employed within this investigation.

In the realm of bibliometric investigations, the meticulous crafting of search strategies holds paramount importance. The authors have duly noted their utilization of the Web of Science Core Database (WoSCC) as the source of original data, a choice we find judicious. Furthermore, their selection of the Science Citation Index-Expanded (SCI-Expanded) for citation indexing is commendable. It is worth underscoring that WoSCC encompasses various sub-databases. Among these, SCI-Expanded stands as the most apt and widely embraced choice for bibliometric analyses⁴. Another salient point deserving attention pertains to the suitability of Topic Search (TS) for bibliometric purposes. ‘TS’, in its approach, designates a study as a target when the search term emerges in ‘Title (TI)’, ‘Abstract (AB)’, ‘Author Keywords (AK)’, or ‘Keywords Plus (KP)’. It is crucial to recognize that ‘KP’ is generated through WoSCC’s automated computational

algorithms, rather than by the authors themselves. Consequently, the inclusion of ‘KP’ during the search process may inadvertently encompass numerous extraneous publications⁵. In our experience, adopting ‘TI’, ‘AB’, and ‘AK’, as qualifiers represent a more prudent course of action, affording a more precise and meaningful dataset for bibliometric analysis.

Furthermore, it is imperative to acknowledge that a search formula’s efficacy hinges upon its inclusiveness, as an overly simplistic approach may inadvertently exclude pertinent publications. In Pan *et al.*’s study, the author’s reliance solely on the phrase ‘total mesorectal exci*’ is insufficient for capturing the entirety of relevant research. As part of our contribution to refining the retrieval strategy, we posit that it is prudent to incorporate synonymous terms and nomenclatures associated with TME. Notably, TME is equivalently referred to as Complete Circumferential Mesorectal Excision (CCME) within certain contexts. To ensure a more comprehensive search, we propose an augmented retrieval formula, as follows: (TI = (total mesorectal exci* OR complete circumferential mesorectal exci*) OR AK = (total mesorectal exci* OR complete circumferential mesorectal exci*) OR AB = (total mesorectal exci* OR complete circumferential mesorectal exci*)). The flowchart of the literature search and screening process is shown in Supplementary Figure 1 (Figure S1, Supplemental Digital Content 1, <http://links.lww.com/JS9/B269>).

The revised search query, encompassing a broader array of pertinent terminologies, indeed facilitated a more comprehensive exploration of the pertinent literature. Our search, conducted from 1 January 2003 to 15 May 2023, retrieved a total of 3635 records (Literature retrieval time: 22 September 2023). Following the judicious exclusion of literature of other types, we ultimately retained 2674 articles for our analysis (Fig. S1A, Supplemental Digital Content 1, <http://links.lww.com/JS9/B269>). The graphical representation of the annual publication trends and Country publications are elucidated in Figure 1.

In comparison to the findings presented by Pan *et al.*, a substantial decline in the number of retrieved articles after using the search criteria to ‘TI/AK/AB’ vs. ‘TS’ (2674 vs. 5345). This marked contrast raises legitimate questions regarding the fidelity of our search strategy. To address this discrepancy comprehensively, we opted to employ an alternative approach, denoted as (KP = (total mesorectal exci* OR complete circumferential mesorectal exci*)). This alternative search yielded a total of 3600 articles (Fig. S1B, Supplemental Digital Content 1, <http://links.lww.com/JS9/B269>). Yet, upon a more granular examination, we ascertained that a significant majority of these documents were largely unrelated to the subject matter of ‘TME’. It is incumbent upon us to emphasize that our thorough investigation reaffirms the findings resulting from the refined search criteria of ‘TI/AK/AB’ as the most faithful representation of the developmental

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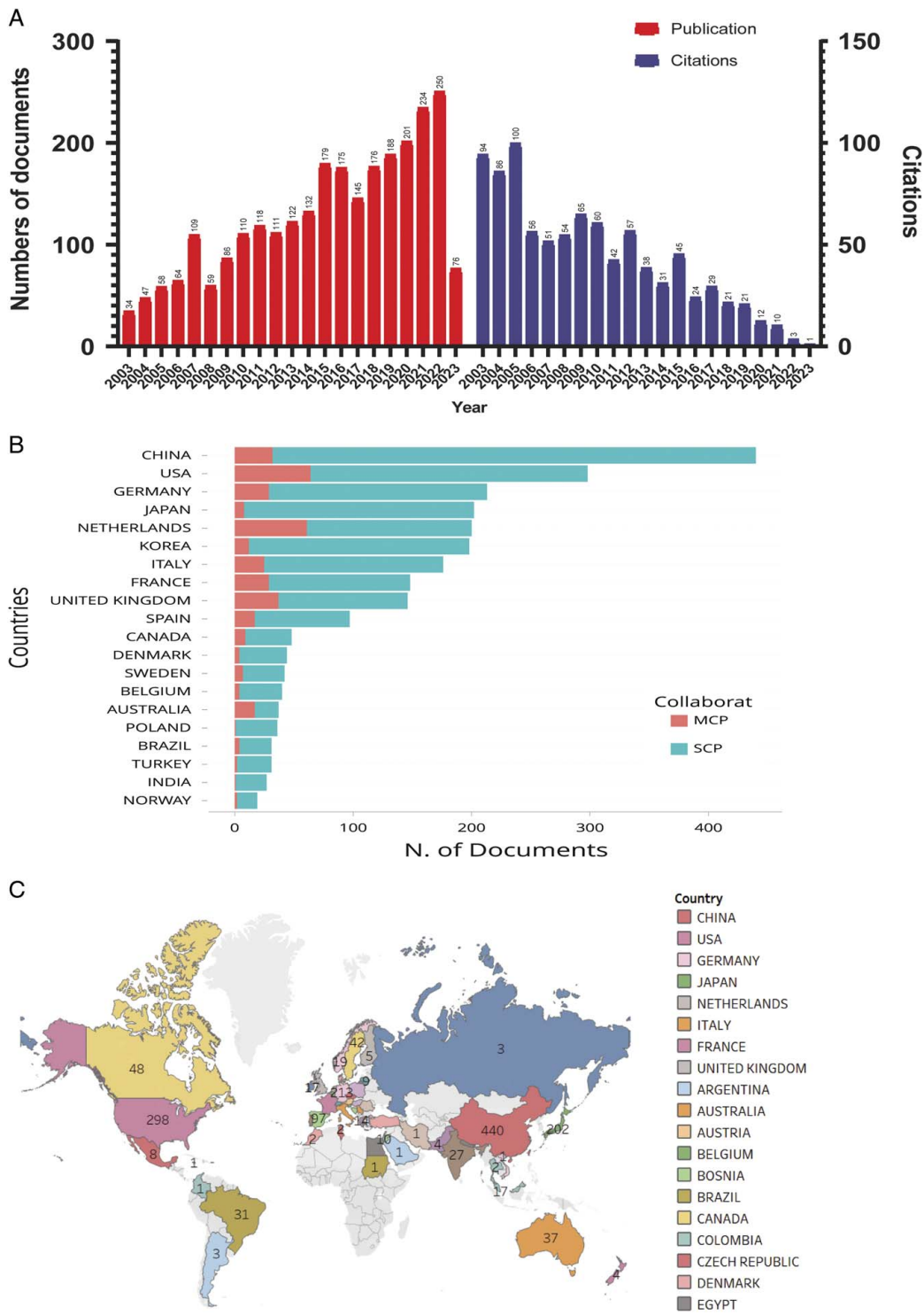


Figure 1. The annual publication trends and Country publications. (A) The trends of annual publication and citations total mesorectal excision in the past twenty years. (B) Corresponding author’s countries: MCP, Multiple Country Publications and SCP, Single Country Publications. (C) Country Scientific Production.

dynamics within the research concerning “TME” over the preceding two decades.

It is worth noting that substantial changes in the number of publications can indeed wield a significant influence on various quantitative data points, including publication counts, citations,

the most prolific countries, institutions, authors, journals, and keywords. This underscores the critical importance of meticulously devising an appropriate retrieval formula, as it serves as the bedrock for unbiased bibliometric analysis. In our considered view, soliciting expert consultation on search keywords tailored

to the specific domain of study stands as an indispensable step in this process. In conclusion, while we extend our commendations to Pan *et al.* for their diligent work, we firmly believe that our suggestions serve to enhance the precision and accuracy of data analysis pertaining to the research trends in total mesorectal excision over the past two decades.

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Consent

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Author contribution

Y.-D.M. and F.Z.: studied concept and design; Y.-D.M. and W.-X.Q.: performed development of methodology and writing, review, and revision of the paper; Y.-D.M. and W.-X.Q.: provided acquisition, analysis, interpretation of data, and statistical analysis; Z.F.: provided technical and material support. All authors read and approved the final paper.

Conflicts of interest disclosure

The authors declare no conflicts of interest.

Guarantor

Yan-Dong Miao.

Data availability statement

Correspondence and requests for materials should be addressed to Yan-Dong Miao or Fang Zhang.

Provenance and peer review

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