

Neurocirugia (Astur : Engl Ed). 2025 Mar 3;500656. doi: 10.1016/j.neucie.2025.500656.

Online ahead of print.

Global trends in neurosurgical research: Insights from the top 100 most-cited articles

R Garcia-Armengol ¹, S A Menéndez-Girón ², C Hostalot ³, A C Pérez-Balaguero ⁴,
C J Dominguez ⁵, A Rodriguez-Hernandez ⁶

Affiliations

PMID: 40043800 DOI: [10.1016/j.neucie.2025.500656](https://doi.org/10.1016/j.neucie.2025.500656)

Abstract

Objective: This study aimed to identify and analyze the 100 most-cited articles in neurosurgical journals over the past 20 years.

Methods: The Thomson Reuters Web of Science citation index was used to analyze articles from high-impact neurosurgical journals identified via Journal Citation Reports. Data extracted included citations, citations per year, title, authors, year, country, institution, journal, study type, and thematic area. Citation analysis identified the most impactful articles. A bibliometric analysis compared trends between 2012-2022 and 2001-2011. Descriptive statistics and Pearson correlation were applied to examine the relationship between publication year and citation count. Stata V14.2 was used for statistical analysis.

Results: Citations for the top 100 articles ranged from 194 to 1,501. "Journal of Neurosurgery" and "Neurosurgery" published the most-cited articles, with peak productivity in 2012 and 2013. The USA was the leading country in article contributions. Neuro-oncology, especially tumor studies, was the dominant thematic field.

Conclusions: The bibliometric analysis highlighted a strong centralization in neurosurgical research, with most highly cited articles coming from two major journals, largely from the United States. This reveals the significant influence of a few key contributors in global neurosurgery.

Keywords: Análisis bibliométrico; Bibliometric analysis; Citas; Citations; Neurosurgical journals; Revistas neuroquirúrgicas; Top 100.

Copyright © 2025. Published by Elsevier España, S.L.U.

[PubMed Disclaimer](#)