Abstract

Vitamin D and Breast Cancer: Bibliometric Analysis of Global Research Trends

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Background: Vitamin D has been increasingly recognized for its potential role in the prevention and management of breast cancer. The growing of research on this topic reflects both scientific curiosity and clinical relevance. However, a systematic bibliometric analysis is needed to map research trends, identify influential studies, and highlight emerging themes in this field. The study aims to perform a bibliometric analysis of publications related to vitamin D and breast cancer to explore global research productivity, collaboration networks, key authors, core journals, and evolving research themes over time.

Methods:
A comprehensive search was conducted using the Scopus database for publications from 2014 to 2024 containing terms related to "vitamin D" and "breast cancer" and “carcinogenesis” with final English article limitation apllied. Bibliometric data were analyzed using VOSviewer to visualize co-authorship networks, keyword co-occurrence, and citation analysis.

Results:
A total of 6972 publications were identified. The number of researches per year has been increasing in the last decade. United States and China emerged as the top contributing countries. International Journal of Molecular Sciences and Cancers are the journal that most frequently publishes the topic. Co-occurrences of the author's keywords show that there are several words related to the vitamin D.

Discussion:
The bibliometric landscape of vitamin D and breast cancer research reflects growing global attention, with notable contributions from high-income countries and multidisciplinary collaborations. These findings provide valuable insights into the development of the field and may inform future research directions and policy decisions in cancer prevention and treatment.