

Scientific output of Brazilian dermatologists during the last 25 years in the five highest impact factor journals in dermatology *

Produção científica de dermatologistas brasileiros nos últimos 25 anos, nos cinco jornais de maior fator de impacto em dermatologia

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Abstract: BACKGROUND: The qualitative and quantitative scientific output of Brazilian dermatologists in journals of high impact factor is little known.

OBJECTIVE: To describe the scientific output of dermatologists from Brazilian institutions in journals of high impact factor.

METHODS: The five journals with the highest impact factor in dermatology were analyzed. All articles produced from Brazilian institutions between 1986 and 2010 were compiled and the following aspects were analyzed: position of Brazilian researchers in the list of authors, selected theme, experimental design, studied disease, area of interest and year of publication.

RESULTS: Seventy-four articles written with the participation of Brazilian dermatologists have been identified. Upon grouping the articles in five-year periods, an important increase was observed in the Brazilian production from the year 2006 onwards. The dermatologists were placed as second authors in the majority of cases (53.66%). According to the selected theme to be studied, the majority of the articles had a laboratory focus (45.95%). The majority of the articles reported cross-sectional studies or non-controlled clinical trials (both at 17.57%), and pemphigus foliaceus was the most studied disease (29.73%).

CONCLUSION: The increase in the number of publications by Brazilian dermatologists over the last years is encouraging, but it is still small in comparison to the total number of articles published in these five periodicals.

Keywords: Brazil; Journal article; Journal impact factor; Research personnel; Scientific journalism

RESUMO: FUNDAMENTOS: A produção científica da dermatologia brasileira, qualitativa e quantitativamente, é pouco conhecida.

OBJETIVO: Avaliar a produção científica dos dermatologistas vinculados a instituições brasileiras.

MÉTODOS: Foram analisados os cinco jornais de maior fator de impacto em dermatologia. Compilados os trabalhos vinculados a instituições brasileiras de 1986 a 2010 e analisados: posição dos pesquisadores Brasileiros na lista de autores, objeto temático, delineamento, doença estudada, área de interesse da investigação e ano de publicação.

RESULTADOS: Foram contabilizados setenta e quatro trabalhos realizados por dermatologistas de instituições brasileiras. Agrupando os trabalhos de cinco em cinco anos, um aumento importante foi observado na produção brasileira de 2006 em diante. Os dermatologistas foram classificados como investigadores secundários na maioria dos casos (53,66%). Segundo o objeto temático estudado, a maioria dos artigos era de enfoque laboratorial (45,95%). Em relação ao delineamento, constatou-se que os trabalhos na maioria eram transversais ou ensaios clínicos não controlados (ambos com 17,57%). Os trabalhos de investigação também foram tabulados conforme a doença estudada, e a mais estudada foi pênfigo foliáceo (29,73%).

CONCLUSÃO: O aumento do número de publicações nos últimos anos é alentador, mas ainda pequeno comparado ao número de artigos publicados nesses periódicos.

Palavras-chave: Artigo de revista; Brasil; Fator de impacto de revistas; Jornalismo científico; Pesquisadores

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INTRODUCTION

The scientific output of Brazilian dermatology, both qualitatively and quantitatively, is not well known. There is few registered data regarding research in Brazil or Ibero-America and the results are rarely discussed.^{1,2,3} One of the first opportunities in which this theme was approached took place in the 44th Brazilian Congress of Dermatology.⁴ In this scenario, we consider relevant to evaluate the scientific output of dermatologists from Brazilian institutions in journals of high impact factor, as well as to evaluate the quality of such studies.

METHODS

Only original research studies were included. The five journals with the highest impact factor from the ISI (Institute for Scientific Information) strictly in dermatology (therefore, Pigment Cell and Melanoma Research was not analyzed) by the year of 2010 were selected, as follows: 1- *Journal of Investigative Dermatology*; 2- *Journal of the American Academy of Dermatology*; 3- *British Journal of Dermatology*; 4- *Archives of Dermatology* and 5- *Experimental Dermatology*. A cross-sectional study was performed and, in all issues of each one of the journals, the research studies including authors based at Brazilian institutions over the past 25 years (from 1986 to 2010) were compiled. Publications were identified with the following search queries: (Brasil), (Brazil) and (Brazilian), and all dermatologists included must have been associated to a Brazilian institution, as stated on paper. All dermatologists were identified and confirmed on the Brazilian Society of Dermatology database. From these articles, data such as position of Brazilians researchers in the list of authors, selected theme, experimental design, studied disease, interest area of the investigation and year of publication were analyzed.

RESULTS

Seventy-four study papers performed by dermatologists from Brazilian institutions were identified.

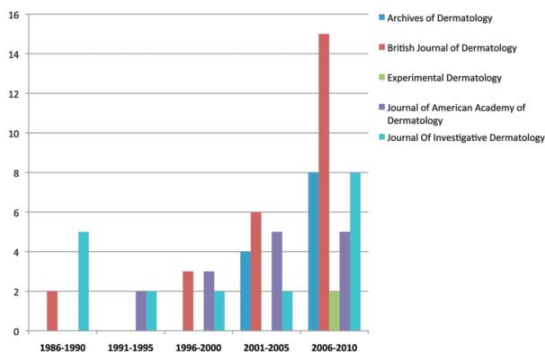
The majority of such articles was published in the *British Journal of Dermatology* (35.13%), followed by the *Journal of Investigative Dermatology* (25.68%), *Journal of the American Academy of Dermatology* (20.28%), *Archives of Dermatology* (16.21%) and *Experimental Dermatology* (2.7%) (Table 1). When the data was analyzed by grouping them in five-year periods, an important increase could be observed in Brazilian publications between the years of 2006 and 2010 (Graph 1). Regarding the position of Brazilians researchers in the list of authors, when counting also the articles in which more than one researcher participated, Brazilian dermatologists were classified as second authors in most cases (53.66%). In 29.27% of the articles, they were placed as first authors, and in 17.07% of the cases they could be classified as senior authors. According to the selected theme of study, the majority of articles had a laboratorial focus (45.95%), followed by clinical investigation (28.38%). Moreover, 24.32% of the studies were classified as having multiple objects of study, involving more than one theme. Only a small part (1.35%) of the studies was classified as having a surgical or animal experimentation focus. Regarding the experimental design of the studies, the majority of studies were cross-sectional or non-controlled clinical trials (both with 17.57%). Experimental analyses corresponded to 16.22% of the papers and case-control studies represented 13.51% of the articles (Graph 2). The studies were also classified according to the target disease, and the great majority of them focused on pemphigus foliaceus (29.73%), followed by melanoma (6.76%) and leprosy (5.41%). Inflammatory/autoimmune etiology was verified in 47.3% of the articles, whereas infectious etiology was observed in 18.92% of them (Graph 3).

DISCUSSION

Despite the fact that the journals analyzed are not the only periodicals to receive articles from Brazilian researchers, these are the journals with the highest impact factor on the ISI. The main objective of

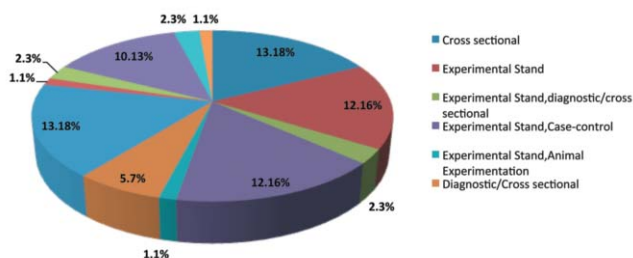
TABLE 1: Number of published articles in journals - 1986 to 2010

Number of published articles in journals – 1986 to 2010	N.	%
Journal of Investigative Dermatology	19	25.68
Journal of the American Academy of Dermatology	15	20.28
British Journal of Dermatology	26	35.13
Archives of Dermatology	12	16.21
Experimental Dermatology	2	2.70
Total	74	100



GRAPH 1: Brazilian publications in journals grouped by five-year periods

N: absolute number.

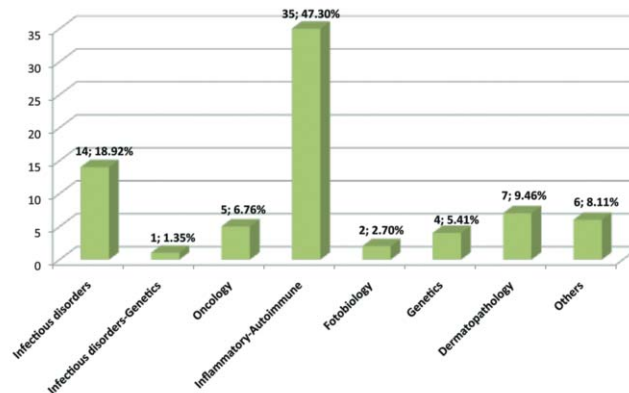


GRAPH 2: Types of experimental design of the studies
* % proportion

the study in question was to evaluate what the reality is, in terms of high-level scientific production, attained by researchers from Brazilian institutions. Firstly, an important two-fold increase in the amount of scientific output during the last five years was observed. Regarding the position of Brazilians researchers in the list of authors, it was observed that in the majority of the cases, Brazilians acted as second authors, having scientists from foreign institutions as

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GRAPH 3: Interest area of the studied diseases on articles

Absolute numbers and %.

first and principal authors. Thus, Brazilian dermatologists are probably contributing more with the recruitment of cases in the country or having a less relevant participation in these studies. Data analysis regarding the object of the studies demonstrated that only a small part of the studies focused on surgical or animal experimentation, a percentage probably much below the potential in such areas. However, surgery is not the main focus of these periodicals. A large contribution was expected in the field of pemphigus foliaceus, area in which the country is a world reference. Moreover, although the number of researched diseases is very large, the production is concentrated only in three diseases.

CONCLUSION

The increase in the number of studies from Brazilian dermatologists in the last years is encouraging, but it remains small when compared to the number of articles published periodically, when the total number of studies published by these five journals is (about) 120 studies per month. □

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