ISSN:2160517

Bibliometric analysis of the top-cited gastroenterology and hepatology articles

Abstract (600 words):

Objective To identify the top-cited articles in gastroenterology and hepatology, and analyse their characteristics.Methods Two searches were conducted in the Science Citation Index Expanded database; a search of 69 journals under the category 'Gastroenterology and Hepatology' (list A) and a keyword search of all journals (list B). The search results were analysed and the inter-rater coefficient of agreement between evaluators was measured using Cohen κ.Results The number of citations varied from 1049 to 2959 in list A and from 1929 to 5500 in list B. In both lists, the majority of articles were research papers. No significant correlations were found between the number of citations and the number of years since publication (R2=0.00992, p=0.473 and R2=0.00202, p=0.757, respectively). However, the mean number of citations of papers published before the year 2000 was lower than those published after 2000 (36.70±19.31 vs 106.03±39.22). No correlation was found between number of authors and the number of citations (R2=0.04352, p=0.130), but strong correlations were found between the number of institutes involved or number of countries and the number of citations (R2=0.275, p<0.001 and R2=0.16181, p=0.003, respectively). Females were under-represented in authorship (45 vs 254, p=0.004). Only 21 papers (of 54) in list A were supported by grants. No correlation was found between number of grants received and the number of citations (R2=0.02573, p=0.247). The inter-rater agreement between evaluators had a Cohen κ coefficient 0.76–0.84.Conclusions Top-cited articles were not only published in highly ranked journals specialising in Gastroenterology and Hepatology but also in 14 journals not specialised in this field. The number of citations correlated with the number of institutes and the number of countries involved but not with the number of grants received or the number of authors. Females were under-represented in the authorship.

Importance of Research(200 words):

While the number of citations alone cannot reveal why a paper is considered important enough to attract citations by other researchers1 nor reflect fully the quality of a paper,2 the citations received by scientific publications have been used as a proxy measurement to assess the work of researchers and impact of research,3 and to rank researchers on the basis of differences in citation indices.3 ,4 Recently, Nicholson and Ioannidis5 explored whether there is a link between highly cited research and US National Institute of Health (NIH) funding. Their findings showed that too many US authors of the most innovative and influential papers in the life sciences do not receive NIH funding.5 While these findings raise a number of possibilities, there is ongoing debate on the importance of citations received by scientific publications.6 For example, using citation metrics to appraise scientists and their work has many pitfalls,7 yet the numbers of published research papers and their citations have been used as a measure to assess the quality of research on national scales and to set it in an international context.8 This may explain why top-cited publications are usually seen by researchers and universities as influential papers, and can be used in measuring the impact of the work of other researchers.

Biography (200 words)

Dr. Boukhris is an interventional cardiologist specialized in complex high-risk (CHIP) PCI and strucutural interventions. After obtaining his MD degree and specialist diploma in Cardiology at the Faculty of Medicine of Tunis, University of Tunis El Manar (Tunisia), he pursued further training with a fellowship in Interventional Cardiology at Cannizzaro Hospital, University of Catania (Italy) under the supervision of Prof Alfredo R. Galassi (founder member and past president of the EuroCTO Club).In 2017, Dr Boukhris has become Assistant Professor in Cardiology at the Faculty of Medicine of Tunis, University of Tunis El Manar (Tunisia).In 2019, he granted a second 2-year fellowship at Centre Hospitalier de l'Université de Montréal (CHUM) within both programs of the Adult Interventional Cardiology program of the Université de Montréal and the Royal College of Physians and Surgeons of Canada.

Info of Institute & Lab (200 words)

University of Tunis El Manar (UTM), founded in 2000, offers a wide range of degrees in law, literature, environmental sciences, health sciences, medicine, economics, engineering and technology, sciences, humanities, IT, social sciences. It is one of the best universities in Tunisia .The University of Tunis El Manar is a multidisciplinary university in which most of the scientific fields are represented: fundamental sciences, engineering sciences and technology, economics, legal sciences, human sciences, computer sciences, medical and paramedical sciences. In order to adjust to the new social and economic realities and respond to the new daily requirements, the University of Tunis El Manar, in accordance with the trends of the National Higher Education in Tunisia and the Barcelona process, adopted the education system of the LMD (Bachelor, Master and Doctorate “phd”) since 2006.

References:

1) Kakehashi S, Stanley H, Fitzgerald R. 1965. “The Effects of Surgical Exposures of Dental Pulps in Germ-Free and Conventional Laboratory Rats.” Oral Surgery, Oral Medicine, Oral Pathology. 20 : 340-49.

(2) Sundqvist G, Figdor D, Persson S, Sjögren U. 1998. “Microbiologic Analysis of Teeth with Failed Endodontic Treatment and the Outcome of Conservative Re-treatment.” Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology. 85 : 86-93.

(3) Molander A, Reit C, Dahlen G, Kvist T. 1998. “Microbiological Status of Root-Filled Teeth with Apical Periodontitis.” International Endodontic Journal. 31 : 1-7.

(4) Nair PN, Henry S, Cano V, Vera J. “Microbial Status of Apical Root Canal System of Human Mandibular First Molars with Primary Apical Periodontitis after

"One-Visit" Endodontic Treatment." Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology. 2005; 99 : 231-52.

(5) Stuart CH, Schwartz SA, Beeson TJ, Owatz CB. 2006. "Enterococcus faecalis: Its role in Root Canal Treatment Failure and Current Concepts in Retreatment." Journal of Endodontics. 32 : 93-98.

(6) Nair P (2006) "On the Causes of Persistent Apical Periodontitis: A Review." International Endodontic Journal 39, 249–81.

(7) Nair PR, Sjögren U, Krey G, Kahnberg K-E, Sundqvist G. "Intraradicular Bacteria and Fungi in Root-Filled, Asymptomatic Human Teeth with Therapy-Resistant Periapical Lesions: A Longterm Light and Electron Microscopic Follow-Up Study." J Endod 1990; 16 : 580-88.

(8) Siqueira Jr JF, Rôças IN. "Clinical Implications and Microbiology of Bacterial Persistence after Treatment Procedures." J Endod 2008; 34 : 1291-1301.

(9) Pinheiro E, Gomes B, Ferraz C, Sousa E, Teixeira F, Souza-Filho F. 2003. "Microorganisms from Canals of Root-Filled Teeth with Periapical Lesions." International Endodontic Journal. 36 : 1-11.

(10) Love R. 2001. "Enterococcus faecalis–A Mechanism for Its Role in Endodontic Failure." International Endodontic Journal. 34 : 399-405.