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Editorial

Bibliometrics. Why talk about that?



This issue 8 of the 2019 edition of OTSR-RCOT (*Orthopaedics & Traumatology: Surgery & Research* [electronic version indexed in Medline and databases] - *Revue de Chirurgie Orthopédique et Traumatologique* (French printed version) gives pride of place to an under-rated topic: bibliometrics. No less than 8 of the articles have this focus!

Why all this interest for a subject that might seem to be the least of our readers' concerns?

And why now?

To answer the second question, which is the easier one: *OTSR* is celebrating its 10th anniversary – and it is an attractive idea, as this year comes to an end, to look back on “the story so far”.

But why all this interest? Bibliometrics is the science analyzing all data relating to publications. These last 15 years or so, information technology, with its huge data-bases (Medline, Web of Science, SIGAPS in France, etc.) and number-crunching capacity, has enabled the growth of this new science which has already spawned numerous reports in all scientific disciplines and many medical specialties, including orthopedics [1]. Studies by authors independent of the SoFCOT (French Society of Orthopedic Surgery and Traumatology) recently confirmed the methodological and redactional quality of the randomized trials [2] and meta-analyses [3] published in the *OTSR*.

What do these bibliometric studies have to teach us?

- The answer that first comes to mind is the celebrated Impact Factor (IF), supposed to measure and rank a journal's quality – or, more generally, all of the indices of journal quality and attractiveness. There are now a lot of these, seeking to supplement or to compete with the Impact Factor, which nevertheless – and probably undeservedly – remains the gold standard. This side of bibliometrics is primarily of interest to editorial boards, to judge their journal's popularity, but also to authors choosing which journal they hope to publish in, weighing the quality of their article against the level of the journal's requirements (which, in theory, are going to be higher the greater the IF).
- More than this, however, bibliometrics allows analyses in much wider fields of investigation:
 - it is now possible to trace the biography of an article and its influence, independently of the journal in which it appears, using applications such as Elsevier's PlumX Metrics or Altmetrics: citations in other articles, downloads, sharing on social media, forums, and general search engines;
 - a second, highly original field of investigation consists in measuring the impact of a country, a specialty or a scientific society

in the worldwide ecosystem of publications, and tracing its progression over time [1,4].

The number of publications has soared in recent years and continues to grow. Indeed, this has been raised as a cause of concern in the press. But do we know, for example, what progression looks like on a country-by-country basis? In France, do we know which journals our authors are turning to? These are data of interest for the whole orthopedic community, and especially for its governing bodies – scientific societies, academic and teaching boards.

This issue's “Bibliometrics” dossier seeks to answer these questions. And first of all, in the name of *OTSR-RCOT*, I want to take this opportunity to thank:

- the authors of these articles, who have put so much effort into these studies, and in particular the Universities of Lille and Clermont-Ferrand;
- Patrick Devos, director of the SIGAPS, who welcomed us and gave us much precious advice in setting up the methodology;
- and the SoFCOT, which gave us access to its files and data-bases.

The content is dense – some might say too dense for comfort – but the lessons to be drawn are rich, and sometimes challenge received wisdom.

Firstly, the ranking of French authors in the international literature is high [5,6]. Dartus et al. [5] and Saab et al. [6] report:

- that, despite the rise of Asian nations, France holds an enviable worldwide position, ranking 9th, and an excellent one within Europe (3rd) [5];
- that the number of articles originating in France is growing rapidly, especially as compared to other European countries; France has tripled its orthopedic production over the last 20 years [5];
- that article quality, assessed by the number of French articles in the top 1% and top 10% of most-cited articles, is improving very rapidly, with a leading position in terms of growth (+65%) within the top 1% worldwide [5]; SIGAPS categories too have progressed very favorably over the last 10 years [6];
- and that French authors are publishing not only in strictly “orthopedic” journals (68.2%) but also in many journals in related fields (31.8%) [6].

Erivan et al. [7] focused on publication rates from a SoFCOT congress: more than 47% of presentations gave rise to publication,

highlighting, if need be, the quality of this national congress. This figure bears comparison with other studies on the same subject and particularly with the article in this issue on publications coming from the EFORT congress [8].

This “Bibliometrics” dossier also analyzes the place of the *OTSR* [5–7,9] on the international scene. Interestingly, French publication rates increased considerably in the second decade of this century, which correspond to the launch of *OTSR*: comparing 1998–2011 to 2012–2017, French orthopedics’ share of publication worldwide increased 1.56 times more than that of orthopedics as a whole. Obviously, the “big” international orthopedic journals remain attractive, but in quantitative terms *OTSR* is still by far the top destination for French and French-speaking authors, as can be seen in Appendix 1 of the article by Dartus et al. [5] and Appendix 2 of that by Saab et al. [6], without our needing to go into the detail here. Likewise, Erivan et al. [7] report that 38% of the articles deriving from the SoFCOT congress were published in *OTSR-RCOT*; the next biggest recipient was *Int Orthop*, at 11%. Erivan et al. [9] also showed, in another study, that the mean citation rate for the 100 most-cited articles in *OTSR* over a 10-year period was 49.59. *OTSR*’s high share of French publications worldwide shows that the initial aims of *OTSR-RCOT* have been met: to become an international platform for French-language orthopedics. It should also be noted that *OTSR-RCOT* is publishing more and more foreign articles (presently, around 40%), reinforcing its international status.

All this is the fruit of an editorial policy based on the quality of submissions, help with writing, and ethical standards as irreproachable as possible to combat plagiarism and lack of transparency. And, to get back to bibliometrics, this has led to rapid increase in the Impact Factor: 1.572 for 2019 (based on citations in 2018 of articles published in 2016–17).

These – and doubtless other – factors make our journal, as shown by the two surveys published in this dossier [10,11], the indisputable reference for our French-speaking readers, and for our young authors beginning their scientific publication career. This is a finding that encourages us, but also places us under obligation.

With this issue no 8, closing the 10th anniversary year of *OTSR-RCOT*, my own term as editor-in-chief comes to an end. After 35 years’ service, first with what was then the “RCO” (*Revue de Chirurgie Orthopédique et Réparatrice de l’Appareil Moteur*), which celebrated its centenary 5 years ago, and then with *OTSR*, I appreciate my good fortune in having been able to take part in this extraordinary adventure – working often in the shadows, but with such enormous satisfaction! Here, I simply wish to thank very warmly all those who have contributed and are contributing to the development and the success of our journal.

- APCORT, and the two successive presidents I have worked with: J.Y. Nordin and B. Augereau. Both always defended the journal’s interests with force and perseverance. SoFCOT whose *OTSR* is the official journal.
- All of the editors who, with amazing fidelity and constancy, each in their own field, implemented our editorial policy. My thoughts go especially to Jean-Michel Thomine, my predecessor who laid out the road-map for the journey, Raphaël Seringe, my teacher so long ago, who carries the flag of pediatric orthopedics in our journal, and of course Henri Migaud, who, after more than 20 years as an editor, will be taking over the future of the journal as editor-in-chief. His ardor, expertise and enthusiasm make him indeed the “man for the job”. He will be backed up by Philippe Clavert as deputy editor-in-chief – and we well know his scientific rigor and energy. I leave *OTSR-RCOT* in the best of hands.

- Our two editorial assistants, Anne Tremeaux and Jocelyne Doyer, whose work-load is both crucial and almost beyond imagining.
- Our translators, who have contributed to the success of *OTSR* by helping our authors publish in English.
- Our publisher, Elsevier-Masson, and particularly Pascal Léger, the executive publisher, and Fabienne Loye, the journal manager, who accompany us on a day-to-day basis and in our strategic decision-making.
- And, of course and above all, the authors, reviewers and readers – without whom there would be no journal at all.

My thanks,
Philippe Beaufile

Disclosure of interest

Philippe Beaufile is editor-in-chief of *Orthopaedics and Traumatology: Surgery and Research*. He is an occasional consultant for Smith & Nephew.

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