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Letter to the Editor

Foreign bodies inhalation as a research field: What can we learn from a bibliometric perspective over 30 years of literature?

Injuries are an important public health problem, accounting in industrialized countries for 40% of all children deaths between the ages of 1 and 4 years. Particularly, the aspiration of a foreign body is an event, which is reasonably frequent and dramatic in children and is one of the main causes of mortality and morbidity due to injuries in children up to 3–4 years of age. For this reason, foreign body injuries in the upper aerial tract in children are a classical theme of the scientific community, and indeed several research has been published, describing in a very huge mass of literature common situations as well as very unusual cases, investigating best approaches directed to FB management and, less frequently, patient recovery and follow-up.

It is already well known that the scientific literature, representing both a depository of knowledge and a medium of communication between scientists and researchers, may offer insight into the contribution to the knowledge of each discipline and how attitudes toward an issue have changed over time. This assumption is the leading idea of bibliometrics studies: bibliometrics has been defined as the scientific and quantitative study of publication, finalized to analyze, by means of statistical methods, a body of literature to describe its historical development.

The adoption of this approach to give a closer look inside the *mare magnum* of papers devoted to injuries determined by foreign bodies' inhalation over a 30 years period (1978–2008), could be able to reveal interesting aspects of the scientific research attitude toward this theme. Performing a research on PubMed database finalized to identify all articles referring to foreign body inhalation¹ 1699 papers were retrieved. Among them, 1603 were judged pertinent, while papers referring to adult FB injuries, other sites of the injury other than the upper aerial tract and iatrogenic causes were excluded from the analysis. Per each retrieved record, information was extracted on author/s, title, journal name, year of publication, volume, issue, page number, language of publication, and journal scientific discipline.

Most of the papers appeared in the last decade (yearly average number of papers is 24.8 for the decade 1978–1988, 29.7 in 1988–1998 and 47.09 in 1998–2008), testifying an increase of interest in the subject. The geographical coverage is also impressive, with 25% of the papers being published in non-English journals (mostly French, German and from East European countries). The number of different journals which published at least one paper on FB injuries is equal to 370, but of course the vast majority of papers are from otorhinolaryngological journals (249 papers, with 23.6% of them in non-English

Journals), multidisciplinary non paediatric journals (198, with 35.5% of them in non-English Journals) and multidisciplinary paediatric journals (149, with 28.9% of them in non-English Journals).

The public health journals, as well those of the injury prevention field are absolutely marginal in this respect, with, respectively six and three papers published.

Fifty percent of the journals published only one paper on the theme in the entire analyzed period, and out of the 3051 experts who authored or co-authored the 1063 papers reviewed, 2792 (91.5%) published only one article on this subject in their scientific career.

These impressive findings could be interpreted as an indirect measurement of what people working actively in the field, already know: first of all, the interest toward this issue is at the moment confined to a very specialist field. Second, the absolutely small numbers of papers coming from the public health and injury prevention area testify the absence of any sort of structured prevention activity for FB injuries, with proper parental education and family paediatricians' training to avoid delayed diagnosis. Moreover, the absence of data on follow-up of patients after FB extraction and thus on long terms outcomes is reflected by the fact that after the first paper publication, more than 90% of the authors quit this field of research. Finally, the international comparisons among injury characteristics and occurrence are almost absent and are very difficult to be made considering that 25% of the papers goes not outside the regional level of scientific dissemination, remaining confined in non-English journals.

This scenario emphasizes the importance of the implementation of surveillance registries able to collect information coming from all the departments involved in the assistance of children having inhaled a FB. The management of a choking child in fact, often implies an active collaboration among emergency room physicians, otolaryngologists, gastroenterologists, pulmonologists, and radiologists: each of them could contribute with an individual piece of information regarding the traumatic event to improve knowledge about object characteristics, clinical pictures, diagnostic and therapeutic procedures. Such a common repository of information being able to both, collect the information when the event happens and to provide a longitudinal follow-up of patients, is essential to knowledge dissemination in scientific community. This is the pathway followed by the European Union, promoting a public owned registry, the "Susy Safe Registry" [1], open to the contribution of each interested institution, even outside Europe. Such approach, in a specialist oriented point of view, allows in fact to improve the efficacy of actions to be accomplished after the event and, in a public health perspective, it let to improve preventive strategies involving primary care operators and to quantify the entity of injury consequences in terms of mortality and disability. Finally, if shared databases are conceived as supra-national institutions, they could be able to identify at a local level which objects and products could be dangerous for children, but also to guide the production and commercialization processes by

¹ Exact search performed was: ((foreign bodies) OR (foreign body)) AND ((aspiration) OR (airways) OR (tracheobronchial) OR (nasal) OR (inhalation) OR (obstruction) OR (choking) OR (inhaled) OR (aspirations) OR (nose) OR (throat) OR (asphyxiation)) AND ((children) OR (child)).

means of a framework of actions aging at a national level as well as at international ones.

Reference

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Letter to the Editor

Acute mastoiditis in children. An increasing entity?

Recent papers suggest [1,2] a renewed increase in the incidence of acute mastoiditis in children over the last few years. A retrospective study was carried out with the aim to investigate the incidence in our country: all the case sheets of the children admitted to Paediatrics, at the University Hospital of Ferrara from January 1994 to December 2008 (Fig. 1) were examined.

In our county infant population has been quite stable during the last few years, around 13.000 resident children (with age from 0 to 14 years), the incidence resulted 0.13:1000. Thompson et al. in a similar period of observation reported 0.2:1000.

On the basis of the results our study cannot confirm a real increase of the incidence of acute mastoiditis, a cycling transmission of the strains can explain the ongoing of the graphics.

Although the decrease of acute mastoiditis in the industrialized countries since the introduction of antibiotics, the morbidity and mortality rate still are unaltered as levels of resistance are present. In some countries, probably due to local habits or to a diffusion of certain particularly resistant bacterial strains, it seems to be on the increase.

Starting from the point that more data are necessary to better understand the phenomenon, small differences in calculating the incidence can be explained since most are retrospective studies; moreover immigration can cause large amount of infant population in relatively short time.

The problem seems to be still an appropriate use of antibiotics.

Benito suggests that tympanocentesis for middle ear culture could be more frequently used, but it is often difficult for parents to accept the necessity of such a procedure in children below two

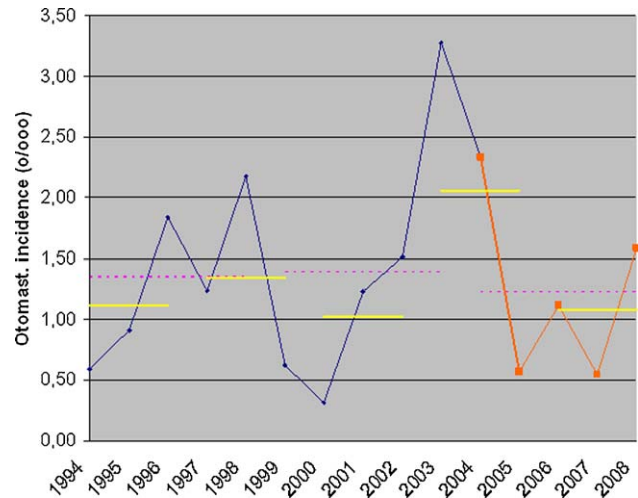


Fig. 1. Incidence of acute mastoiditis per year. Blue line refers to a previous study, orange line refers to new cases. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of the article.)

years old, who are commonly affected by acute otitis media; difficulties in organizing it are not so rare. A largely shared study on the treatment of acute otitis media is necessary.

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Letter to the Editor

Cervicofacial lymphadenitis caused by nontuberculous mycobacteria; host, environmental or bacterial factors?

Sir,

In a recent issue of the Journal, Dr. Haverkamp and colleagues presented an interesting study on host immunity genes and their potential importance in cervicofacial lymphadenitis caused by