Traditional Medicine: An Evaluation of the Interest of the Publication of Scientific Papers about Moxibustion

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The interest by the techniques related to the Traditional Medicine (TM) is evident and is increasing in the world. Moxibustion is a procedure used in the TM and has been used extensively in the Far East (Southeast Asia, China, India and Japan). We decided to evaluate the number of publications with moxibustion and to compare with the number of publications with a procedure widely used in the world, the therapeutic ultrasound. The searches were performed in PubMed (http://www.ncbi.nlm.nih.gov/PubMed) in the 1964-2002 period and the number of publication per year was determined. The number is higher to ultrasound than to moxibustion. The percentage of the papers in which the ultrasound is indicated increase continuously. The percentage of the papers in which the moxibustion is indicated is small before 1984, after that, increases with a characteristic behavior. The searches difference could be explained due to (i) the publications in moxibustion would be in journals not indexed in PubMed, (ii) the stimulation to develop projects in well established subjects, as in ultrasound, (iii) the concentration of the research in moxibustion in specific groups and determined countries and (iv) some impressive results in moxibustion remain not translated.

Key words: Traditional medicine, moxibustion, ultrasound, publications, PubMed

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INTRODUCTION

The term moxibustion refers to the application of a small amount of a dried plant material, but it usually also involves scraping the skin with, traditionally, copper coins to create redness. Moxibustion, a procedure of the traditional medicine (TM), has been used extensively in the Far East (Southeast Asia, China, India and Japan) for many centuries and for many kinds of diseases, including pleurisy, pneumonia, abdominal pain, chest pain and local pains and is equivalent to the Western medicine practice of prescribing hot compresses as an anti-irritant to attract white blood cells and antibodies to the irritated area\textsuperscript{[3,4]}. The escalation in popularity of the TM (complementary and alternative medicine), as the traditional Chinese medicine (TCM), has begun to stimulate regulatory responses in various aspects to ensure the safety, efficacy and quality of the different modalities of treatment\textsuperscript{[5,6]}. In general, it is considered that the TM procedures are effective and have only few side-effects. However, contaminants of the herbal medicines used in the TCM, as heavy metals and undetected drugs have been reported. These facts have stimulated several authors to study different subject concerning to the techniques used in the TM\textsuperscript{[3-14]}.

The interest of the scientific community can be evaluated by the analysis of the number and the quality of the publication of papers in a specific subject. The publication of a paper is as important as obtaining the results of a research and, it is worthwhile (i) to validate the obtained results and conclusions, (ii) to reach the targeted audience, (iii) to stimulate the discussion of a subject, (iv) to obtain recognition of the excellence of the work, (v) to announce the development of new methodologies, (vi) to put in evidence some subjects that are not widely accepted and (vii) to have international repercussion of the group that is developing a research.

The recent and extensive, expansion in the use of computers and the Internet offers great potential for benefit in general research. The data base and literature update systems play an important role in promoting the results of a research. The merit of the scientific journals is evaluated by the impact factor and this factor is based on the analysis of the number of citations of the published paper. The impact factor is determined by the Journal Citation Reports, a periodical publication that compiles the data of the Science Citation Index, Social Sciences Citation Index and Arts and Humanities Citation Index, all of them published by the Institute for Scientific Information (PubMed).

PubMed is a data base service of the National Library of Medicine that provides access to over 12 million Medline citations back to the mid-1960s and additional life science journals. PubMed includes, in general, the abstracts of the papers and links to many sites providing full text articles and other related resources, as well as, it is frequently used as tool in various publications.

In general, the techniques utilized in the traditional medicine normally are associated with the observation of the phenomena (empirics) and in the conventional medicine with the experimentation in the laboratories (scientific method). As the increase of the interest of human beings is evident in the world, we have decided, using a data base system, to evaluate the number of publications with the techniques of moxibustion. We have also compared these findings with the number of publications in techniques with an agent used in the conventional medicine, the ultrasound.

MATERIALS AND METHODS

The searches were performed in data base system PubMed (http://www.ncbi.nlm.nih.gov/PubMed) in the period from 1964 up to 2002 using the words moxibustion and therapeutic ultrasound in the link. The data were obtained in January 3, 2004. The number of publication, in each subject, per year was determined, in moxibustion (NPMX) and in therapeutic ultrasound (NPTU). The total number of citations in each subject in the studied period was also determined. After that, the percentage of citation to each subject per year, %PMX and %PTU was calculated dividing the number of citation in each subject in each year by the total number of citation in each subject in the studied period, to moxibustion and ultrasound, respectively.

An interest factor in a subject (IFS) was also calculated dividing the percentage of publication in 2002 by the percentage of publication in a specific year.

RESULTS AND DISCUSSION

The number of the publication cited in the PUBMED in the period 1964–2002 and it is higher to ultrasound than to moxibustion (Table 1). The percentage of the papers published by year, in which the ultrasound is found, is indicated in the publication (%PTU). It is possible to verify a constant and continuous interest in therapeutic ultrasound by the scientific community (Fig. 1) since the early years in the PubMed.

The percentage of the papers published by year with moxibustion (%PMX) is indicated in Fig. 2. Although the number of publications in moxibustion and therapeutic ultrasound is quite different, it is relevant to do some consideration about the scientific interest in these subjects. Firstly, it is possible to verify that a small
preservation of the TM knowledge is essential to ensure access to the public, in general. As much of the scientific literature on traditional medicine provides inadequate evidence on safety and efficacy, due to the individual case reports and patients series, with no control or comparison group, it is relevant to stimulate the scientific community to develop projects to a better understanding of the action mechanisms of the procedures of the traditional medicine. Moreover, the number of reported severe side effects is relatively low when compared with the number of side-effects seen with conventional medications. However, various authors have described unexpected effects related to the utilization of the extracts and preparations of the medicinal plants[^2][^8][^21].

A repercussion of scientific work depends on the quality and the reputation of the journal where the paper is published. These journals are indexed in data systems and in general, are available, as abstract or full paper to the scientific community. The analysis of the results shows that when a subject is well accepted by the scientific community, the interest in the development of research is increased (laser) with the next years. Moreover, when a procedure is not well established, the interest can vary, dependent on the considered situation (moxibustion).

Table 2 reveals that the percentage of the publication in moxibustion has suffered a variation. If you are considered the period between 1984 and 2002, the
comparison of the interest factor is higher to moxibustion than to ultrasound. However, the same comparison between 1992 and 2002 the interest factor is higher to ultrasound than to moxibustion.

The number of the publication cited in the PUBMED in the period 1964–2002 is higher to therapeutic ultrasound than to moxibustion and this could be explained due to: (i) the publications in moxibustion would be in journals not indexed in PubMed, (ii) the stimulation to develop projects in well established subjects, as in ultrasound, (iii) the concentration of the research in moxibustion in specific groups and determined countries and (iv) some impressive results in moxibustion remain not translated, as some results in moxibustion obtained in Republic of China[9].

The increase of the percentage of publication in moxibustion threshold in 1972 could be associated with the increase of the international relationship between the occident and the orient. Moreover, the increase of the publications in the end of the last century could be also associated with the announcement about the importance of the traditional medicine by the international institutions, like the World Health Organization[10].

REFERENCES