How can we optimise research integrating TCM with conventional healthcare practice?

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Introduction: Traditional Chinese medicine (TCM) is one of the most often used complementary medicines in Australia and worldwide by patients who have prior visits to western medicine (WM) care. Both paradigms have evolved under differently diagnosis and treatment principles to provide healthcare [1]. WM is facing the challenge of increasing costs in research of drug discovery and decreasing new effective drugs to alleviate chronic illnesses.

The aim of this presentation is to provide an overview on the recent assessment of good practice in TCM research published in literature, from which we can propose new directions to integrate these into conventional healthcare.

Method

Literature review of key publications in TCM research, based on the EU-FP7-funded project “Good Practice in TCM Research (FP7 GPTCM) in the Post-genomic Era” [2], is utilised to illustrate how advances in technology in quality control of Chinese materia medica, biomedical studies using systems biology and adaptation of integrative research methods in clinical practice can provide integrative research methods with translational approaches in R&D of TCM, as indicated by review papers below:

• Good practice for reviewing and publishing studies on herbal medicine [3].

• Omics research in acupuncture to understand meridians and acupoints [4].

• Exploring practice and research of acupuncture in China and the EU [5].

• Future global regulation of Chinese herbal products [6].

• Omics and its potential impact on R&D and regulation of complex herbal products [7].

• Pharmacovigilance of herbal medicine, including TCM [8, 9].

• Assessing toxicity of herbal medicines [10].

• Integrating syndrome differentiation with orthodox medical diagnosis [11].

• R&D of high quality Chinese medicine products [12].

Purpose

The aim of this presentation is to provide an overview on the recent assessment of good practice in TCM research published in literature, from which we can propose new directions to integrate these into conventional healthcare.

Results

Good Practice for TCM Research

Acupuncture study Overview of clinical conditions in China and the EU

Regulation of Chinese herbal products

Discussion

• There are differences in practice and training between acupuncturists in China and in the EU.

• Disease-oriented studies using the approach of multi-indexed high-throughput technologies and systems biology analyses to provide a proposed strategy for future R&D of Chinese medicine.

• International collaboration and harmonisation is essential for regulation of good quality Chinese medicine products.

• Development, dissemination, implementation and refinement of good practice guidelines in reviewing and publishing research findings on traditional medicine are matters of vital importance.

• Combining the systems biological knowledge of mechanisms of actions of Chinese medicines, ensuring identification of potential biomarkers to be associated with both Western disease concepts and TCM syndrome classifications and QOL instruments to monitor patient-reported outcomes, which are in the heart of personalized medicine, would offer common ground for integration [1].

• Effective pharmacovigilance is essential for the development of appropriate guidelines for safe, effective use of herbal medicines including those derived from Chinese materia medica.

• Structural alerts and in silico, in vitro and in vivo methods could be applied to predict the genotoxicity, teratogenicity and nephrotoxicity of Chinese medicinal products.

• Research in TCM syndrome differentiation will provide the basis of the molecular network of TCM syndrome differentiation for some disease types, in defining the potential mechanism of Chinese medicines.

Conclusion

• Continuing effort in scientific and practice research and development is key to provide new knowledge for training new generation of human resource in integrative medicine that involves TCM practice.

• Research linking the relatively new systems biology and experience-based TCM principles will be useful to interpret the holistic approach of TCM towards integrative medicine.

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