

Book Review – Phytomedicine Vol. 10/6-7 (2003)

Chrubasik, S. and Roufogalis, B. D. (Eds):

Herbal Medicinal Products for the Treatment of Pain.

184 p. Southern Cross University Press, Australia

2000. Price: Australian \$ 45.00

ISBN 1-875855-47-5. (SC).

The genesis of this book was a meeting of the Special Interest Group on Rheumatic Pain of the *International Association for the Study of Pain*, which was held in August 1999 in Freiburg, Germany. This volume presents expanded and updated versions of papers presented at this meeting. The twenty-seven highly qualified contributing authors are primarily from the faculties of pharmacy, pharmaceutical biology and clinical pharmacology in Europe, Australia and Israel. The book is divided into the following 4 segments: 1) general aspects of the mechanisms of action and pharmacology, 2) phyto-antiinflammatory drugs for oral and external use, 3) phyto-antimigraine drugs and 4) phyto-antidepressants. The majority of chapters contain well written, data driven analysis of the efficacy and biology of plants utilized to manage and treat pain. This is an especially important area of phytomedicine research the diversity of pain management therapeutics is quite limited in the practice of modern medicine.

An overview of phytomedicines and their currently understood active principles is presented for the internal anti-rheumatics including devil's claw, stinging nettle, willow bark, black current leaf and seed, evening primrose seed, borage seed goldenrod herb + pen bark. For external anti-rheumatics the list includes: Capsicum, arnica flower, comfrey herb/root, white mustard seed, sweet clover herb and tea tree oil. For migraines the plants included are: Feverfew, butterbur, peppermint oil, and, for depression, St John's wort and kava kava.

I was quite pleased to read the first chapter of this book. In it Drs. Chrubasik and Roufoglis, the editors of this volume indicate: "Some herbal antidepressants have been shown to be as effective as synthetic antidepressants and superior to placebo treatment with less adverse reactions. In order to minimize the use of synthetic drugs, herbal anti-depressants should be considered for the first step in treatment, considering their demonstrated higher benefit to risk ratio compared to treatment with synthetic drug medications". The chapter by Rudolf Bauer on the *Pharmacological Aspects of Anti-inflammatory Herbal Drugs* is excellent. He describes practical challenges that face pharmacologists when working with plant preparations. He

also focused on a variety of anti-inflammatory mechanisms of action such as the Inhibition of complement factors, PAF antagonism, Inhibition of COX-1/2 or 5-lipoxygenase (5-LOX), Inhibition of cytokine release, or selective blocking of NF-kB. He also provides some interesting structure activity relationships among anti-inflammatory compounds isolated from rhizomes of *Atractylodes lancea*.

The book also contains five chapters on the pharmacology, pharmacokinetics, efficacy and safety of devil's claw, *Harpagophytum procumbens*. One of the articles examines the use of devil's claw to treat osteoarthritis of the knee and hip and draws conclusions that this phytomedicine can be useful in treating this condition by improving symptoms and reducing the requirement for NSAIDs and analgesic drugs. The section on topical anti-inflammatories contains two interesting chapters on the mechanism of action, safety and efficacy of *Capsicum* species and the mode of action of sesquiterpene lactones from *Arnica montana*. The other chapter in this section examines the efficacy of tea tree oil and other essential oils. There are three articles in the book devoted to phytomedicines to treat migraines. Two of these focus on the mode of action, pharmacology, and efficacy of the *Petasites hybridus* extracts. The data presented indicate effective prophylaxis of migraines using phytomedicines prepared from this species. The paper is a very brief discussion of the efficacy of *Tanacetum parthenium* for the treatment of migraine. The last segment of the book focuses on herbal antidepressive drugs. There are four chapters on *Hypericum perforatum*, and one of those provides a very useful systematic review of randomized controlled trials with St John's wort. The final chapter is a brief discussion of the efficacy and safety of *Piper methysticum*, which provides a summary of some animal and human studies. The most interesting aspect of this final paper is the mention of postmarketing studies that followed approximately 8,000 people taking at least 105 mg of kavalactones per day with no kava-related adverse effects. This is interesting data considering the safety concerns that have arisen with kava in the past eighteen months.

In summary, this is an extremely useful collection of studies on the pharmacology, efficacy and current understanding of the mechanism of action of phytomedicines utilized to treat and manage pain. The reader may finish this volume hoping that the world of traditional medicine will also yield additional new oral treatments for pain that can provide alternatives to the opiate bed drugs.

Rudolf Bauer's chapter contained a fascinating tribute to traditional medicine and anti-rheumatic plant medicines. He notes that the flora of China contains approximately 26,092 vascular plants and Traditional Chinese Medicine (TCM) utilizes 4,941 (19%) of these plant species. The number of TCM plants utilized as anti-rheumatics is 1,318 species, that is 25% of the medicinal plants in China are used for anti-inflammatory purposes. Bauer points out most of them have not been evaluated by the field of pharmaceutical biology.

In fact this entire volume represents research by some of the world's leading pharmacologists trying to elucidate the effects and mechanism of action of plant phyto-medicines that have been discovered based on the knowledge of local and indigenous peoples of the world. There is very little mention of the specific origins of these plant medicines in the text and that is, of course, not the focus of this volume. The five chapters on *Harpagophytum procumbens* do not mention that the San Bushman have been using devil's claw for mil-

fit sharing agreement with European and American Pharmaceutical companies for an anti-obesity drug candidate that was extracted from a species in the genus *Hoodia*, which the San Bushman utilize to stave off hunger during periods of famine. Indigenous and local healers of the world continue to request that they be accorded proper respect, intellectual credit and benefits to their communities for their contribution to modern medicine and phytotherapy. I would like to do just that in this review, to thank the healers of today and yesterday for their dynamic and ongoing contribution to the world's health care Systems. Thanks as well to the pharmaceutical biologists who have produced the research in this volume, which is testimony to the sophisticated knowledge of traditional healers around the world.

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