Multidisciplinary Management of Migraine
Pharmacological, Manual, and Other Therapies

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I am greatly saddened by the loss of my close friend and colleague Peter Huijbregts, who suddenly passed away on November 6, 2010. His death was a horrible tragedy and a great loss to his family and friends, the profession of physical therapy, and society in general. Peter was one of those individuals whom you never forgot once you were fortunate enough to have him cross your path.

I was aware of Peter’s substantial contributions to the physical therapy profession well before I had an opportunity to meet and work personally with him. I first became friends with Peter during his tenure as Editor for the *Journal of Manual and Manipulative Therapy*. I was also extremely fortunate to work with him as Editor of *Contemporary Issues in Physical Therapy and Rehabilitation Medicine* for Jones & Bartlett Learning, as he entrusted me with editing the first textbook of the series, along with this book.

Peter was wonderfully articulate and never at a loss for words. I can recall some late-night evenings spent at national conferences enjoying conversations with Peter, who would frequently discuss his love for his wife, Rap, and his two children, Arun Joseph and Annika Dani. I will also never forget his sense of humor and can remember numerous occasions where Peter would entertain an entire room with his wit and comedy.

Peter has had a remarkable influence on many professionals who have had the fortunate opportunity to know him. His passing leaves a huge void in the manual therapy community around the entire world. Peter was a truly great gentleman, a wise scholar, and an inspiring man. I will miss him greatly!

—César Fernández-de-las-Peñas
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The pharmacological treatment of migraine has progressed enormously over the last two decades. A wealth of randomized double-blind trials has documented the efficacy of the triptans and a huge number of post-marketing research studies have provided guidance on the practical use of these acute treatments. The combination of the triptans and nonsteroidal anti-inflammatory agents has delivered increased efficacy against migraine attacks as well. At the same time, a growing body of evidence has shown that overuse of triptans leads to deterioration and chronification in migraine patients. Although prophylactic treatment for migraine has also progressed, the gains realized have not matched those in acute treatment. Indeed, the gradually acquired knowledge of how to best use the different drugs, how to prioritize them, and when to stop prophylactic treatment, and a number of other clinical issues have been driving the agenda rather than the advent of new drugs.

All of these developments in pharmacotherapy have not obviated the need for a broader therapeutic approach to migraine. While patients with straightforward migraine as the only diagnosis are usually easy to treat, the patients seen at specialized clinics are increasingly being noted to suffer from a combination of problems that require a multidisciplinary therapeutic effort. Medication overuse, as already mentioned, is one problem observed in this setting, but comorbid depression and anxiety are also very important. Furthermore, it has become apparent that a relatively small segment of migraine patients experience deterioration of their condition over the years and may end up with the new diagnosis of chronic migraine. Chronic migraine is defined as suffering attacks for at least 8 days per month plus a total of at least 15 days of headache or more per month. Patients with this type of migraine are relatively resistant to existing prophylactic drugs and need multidisciplinary treatment. Although the efficacy of such regimens has not been proven in randomized controlled studies, the results of multidisciplinary treatment have been uniformly positive in a range of open studies in specialized centers in America, Europe, and elsewhere. These severely affected patients have often suffered with migraines for a decade or more, and so placebo effects are not likely to confound the clinical research picture.

This book is edited by an unusual combination of migraine experts—a physiotherapist, an osteopath, and a neurologist. They have recruited a number of international top-tier authors to write chapters on their areas of specialty. The result is a unique focus on the multidisciplinary aspects of migraine treatment, something to which no book has paid sufficient attention before. This book will undoubtedly be useful for those who specialize in the treatment of migraine and other headaches and, in fact, for all providers who care for headache patients.
During the past decade, scientific research has improved our understanding of migraine pathogenesis, leading to more efficient pharmacological treatment protocols. Many migraineurs, however, remain dissatisfied with their anti-migraine medications because these agents are not sufficiently effective or have unpleasant side effects. It is not surprising, therefore, that in a recent survey by Wells et al. (2011), complementary and alternative medicine (CAM) was reportedly used more often among adults with migraines and severe headaches (49.5%) than by those persons without these diagnoses (33.9%). CAM therapies were grouped into four broad categories: alternative medical systems (e.g., acupuncture, homeopathy, naturopathy), manual therapies (e.g., massage, chiropractic care), biologically based therapies (e.g., herbs, food elimination), and mind–body therapies (e.g., biofeedback, hypnosis, meditation, relaxation).

Many—though by no means all—anti-migraine drugs have been studied in large, randomized, placebo-controlled trials and are the mainstay therapies cited in evidence-based international treatment guidelines. Such guidelines are chiefly focused on efficacy measures and seldom take into account side effects and tolerance. CAM therapies do not incorporate drugs and have relatively few adverse effects, but they also usually lack evidence-based data supporting their efficacy in treatment of migraine. Admittedly, this lack of research-based evidence is a major handicap according to modern scientific standards, and it is acknowledged that, whenever possible, adequate controlled trials should be performed. This standard can be problematic, however, as funding for such large trials is rarely available, and adequate, biologically nonactive placebos may not exist.

Meanwhile, the potential usefulness of CAM therapies is supported by the multifactorial pathophysiology of migraine and by its high comorbidity. Building on Kerr’s principle (1961), Jes Olesen (1991) has conceptualized the vascular–supraspinal–myogenic model for headache where “the perceived pain is determined by the sum of nociception from cephalic arteries and pericranial myofascial tissues converging upon the same neurons and integrated with supraspinal effect.” According to the author, this model provides “a rational explanation of empirically developed, internationally accepted, multimodal treatment strategies for migraine and tension-type headache.” The majority of manual therapies described in this book are relevant to this multisensory convergent model of head pain.

Migraine, however, is also known to be comorbid with more than 20 somatic diseases (Le et al., 2011), among which musculoskeletal disorders, including fibromyalgia, are highly prevalent. Comorbidity with psychological disorders including generalized anxiety disorder, panic disorder, and depression is even more widespread (Radat et al., 2011).
Thus somatic and mental comorbidities are seen to contribute substantially to migraine disability. Both physical and mind–body strategies can beneficially modify such disability, thereby contributing to an increased quality of life for patients with migraine. Interestingly, only 4.5% of migraineurs who use CAM therapies (49.5%) declare that they use them specifically for migraines or severe headaches, suggesting that the majority use these therapies for comorbid symptoms (Wells et al., 2011).

To the best of our knowledge, this text is the first book that presents a comprehensive and cutting-edge overview of both the classical pharmacotherapies of migraine and the nondrug treatments, including the wide range of manual therapies and mind–body strategies. The chapter authors were asked to include illustrative clinical vignettes as well as therapeutic evidence scores based both on efficacy and tolerance whenever possible and appropriate. We are deeply indebted to them for their highly knowledgeable and well-balanced contributions.

Although this book’s table of contents suggests that multidisciplinarity is the key to migraine therapy, the reader will not find a specific chapter on multidisciplinary treatment strategies here, because such an approach would vary with locally available expertise as well as the patient’s clinical presentation and preferences. To conclude this introduction, we can do no better than to repeat David Peters’ conclusion (Chapter 23) that “today . . . it is not merely a holistic notion of the patient that is needed, but a holistic notion of the medical context itself.” We hope that this book will contribute to this model.

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