In addition, food safety standards that the companies follow in India are likely to be different when compared to developed countries. The chapter on regulatory affairs is well written. It is well known that there are insufficient trials to support paediatric use, much so for neonates and premature infants – all of whom are independent populations. It also seems difficult to envisage a change in scenario particularly with respect to the near future. Initiatives like justification of exclusion of neonates by the US FDA is a welcome step. The point about opportunistic studies is appropriate and should be extended to all drugs, even approved ones. The French system appears to be worth emulating – in this system a drug is allowed to be used in a non-approved indication for three years during which data from the drug usage are collected for making a risk versus benefit assessment. Final decision is taken by the drug regulatory authority after this period.

Being an update it assumes significant background knowledge of readers. Also more figures and tables would have added value. At some places the language becomes a little dry and it is difficult to sustain interest. Nevertheless, most of the topics are covered well, particularly the one on regulatory affairs. The authors' description of the procedures followed in different countries is useful. Overall, this book provides useful information and is suitable for paediatricians, neonatologists and residents pursuing their degrees. It will be useful for the teaching faculty as well.

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Translational neurosonology, A. Alonso, M.G. Hennerici, S. Meairs, editors (Karger, Basel, Switzerland) 2015. 120 pages. Price: US$ 155.00 / CHF 132.00 / EUR 123.00
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Since the 1970s, there has been a steady progress in improvisation of medical ultrasound systems and a corresponding increase in clinical utilization of this largely non-invasive technique in the diagnosis of neurovascular disorders. However, with the recent surge in the technical advances and development of new diagnostic and therapeutic applications; some of these still in experimental stage, more and more clinical neuroscientists are drawn towards the field of neurosonology.

The first part of the book deals with basic ultrasound principles, bio-effects, safety and the new ultrasound contrast agents. Microbubble kinetics in the human vascular system and their various interactions with the ultrasound beam are covered in detail. How these interactions can be edged towards the use of advanced therapeutic applications of ultrasound waves in medicine, like for therapeutic ablations is also explained.

The following chapters are dedicated to many of the established and emerging clinical and experimental applications in neurosonology, starting from intima-media thickness measurements in carotid arteries, parenchymal imaging in movement disorders to more advanced uses like cerebral perfusion imaging and vasomotor reactivity studies, especially in transient ischaemic attack (TIA) and ischaemic strokes. Every chapter is a meticulous review of the current trends in the corresponding field.

The therapeutic applications of ultrasound, for example, sonothrombolysis- right from historical perspectives to development of microbubble- based ultrasonography clot lysis and the clinical trials on the same are covered in the later chapters. The emerging applications of selective transcranial brain ablation with high-intensity focused ultrasound (HIFU) and experimental studies on blood-brain barrier opening for drug delivery to the brain are discussed in the last two chapters.

Overall, this book is an essential primer for those neuroscientists who venture into this exciting new field of advanced application of ultrasound in neurological disorders. Animal models and randomized clinical trials, wherever available are reviewed comprehensively in many of the chapters, which makes it scientifically sound. This book will find its due place in the library of many academic neuroscience departments.

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