Preface

Although magnetic resonance imaging, or MRI, has been with us for quite some time and is in widespread and routine use, good “recipe books” on the performance of specific actual studies are hard to find. As all imaging modalities, and particularly MRI, are carried out by a range of operators under varying clinical circumstances, standardizing the work flow becomes ever more important, because it is only through standardization that the quality of diagnostic imaging will improve. This pared-down book attempts to close the gaps in MRI protocols for routine applications. By leaving out all extraneous information, we have put together a power-packed “how-to-do-it” book.

We have compiled protocols for most major studies, not only paying particular attention to the “classic” indications in neurology and orthopedics but also including the more recent developments such as MR angiography, MR cholangiography, MR urography, or MR colonography.

Consistent text layout is vital to clear presentation and ease of reference. The text has been structured along the same lines as the protocols themselves: starting with the preparations required for the study and the materials needed, it goes on to cover any specific points about the positioning and/or choice of coils, and then delineates the steps for each study, including not only examples of the various sequences but also available modifications.

Wherever possible, we have added useful hints that may facilitate the study and point out potential complications and how to avoid them.

Experience tells us that almost every radiologist and technician has his or her own way of doing a study and prefers certain sequences and/or protocols, much as famous chefs each produce their own versions of particular dishes. Nevertheless, standardized protocols are still important and sometimes even seasoned veterans thumb through them just to check on how others have solved certain problems. We have also left plenty of space for personal notes.

This book would lose half its worth if it were based only on our own ideas about work flow. We are deeply indebted to the senior application specialists from Siemens, Philips, and GE as well as to members of the sequence development units of those three companies for their commitment and innumerable valuable suggestions. Some of the work flows and choices of sequences therefore reflect the enormous expertise accumulated by these three global players in the MRI market. We are particularly grateful to Bernhard Klueh, Marion Hellinger, Birgit Hasselberg, Monika Forschner, and Karl-Heinz Trümmler from Siemens, to Michael Wolff and Britta Prediger from Philips, and to Birgit Anders from GE.
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Torsten B. Moeller
Emil Reif