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## Preface

The meniscus has been forgotten!

It is not long ago that any suspicion of a meniscal lesion eventually led to an open meniscectomy, which in most of the cases was total. This solution was widely proposed as it was considered to be a simple and effective procedure followed by speedy recovery. It was recommended mainly because the importance of the biomechanical role of the meniscus was not recognized.

The studies of Fairbank on the consequences of meniscectomy, those of Smillie and Noble on the prevalence of meniscal lesions acknowledging the process of meniscal aging, the study of Trillat who proposed a classification of meniscal lesions and opted for an intramural meniscectomy (the first hint of a partial meniscectomy), the studies of Watanabe on dysplastic menisci, and many more have increased the awareness about the fact that pathologic conditions of the menisci have repercussions on the entire knee joint and that surgical treatment must be adjusted accordingly.

In the 1970s and 1980s two truly revolutionary improvements were introduced: arthroscopic surgery and magnetic resonance imaging (MRI). It should be emphasized that arthroscopy was introduced into clinical practice before MRI and the order in which the diagnosis and treatment take place today (physical examination, MRI, arthroscopy) is different from that followed earlier. Arthroscopy has played an important role in the diagnosis of meniscal lesions.

These technological advances contributed to a better understanding of meniscal pathology, diagnostic techniques, and principles of treatment, and resulted in a lower complication rate. Like all technical innovations, they also entailed some disadvantages, such as the risk of resorting too often to surgical treatment, particularly meniscectomy, as a result of the sensitivity of these methods.

However, the advantages prevailed over the drawbacks. It was then realized that the menisci play a prominent role in knee joint biomechanics, and that there is not just one but many different meniscal lesions and consequently not just one but various treatment methods, adapted to the type of lesion and its clinical context.

This has led to the concept of meniscal preservation or meniscal sparing, which is based on three pillars: as partial a meniscectomy as possible, thanks to arthroscopy, meniscal repair, and leave the meniscus alone. The first surgical repair of a meniscus was performed in 1885 by Annandale. Now the technique of meniscal repair has become more refined, proceeding from open meniscal suture to combined open and arthroscopic techniques and then to all-inside techniques, which are now widespread. The results have been evaluated and the indications have been clearly defined, particularly those concerning the choice among meniscectomy, surgical repair, and leave the meniscus alone.

Meniscal lesions in children have been the subject of intensive investigation and comprise dysplastic and traumatic lesions. Meniscectomy, which would be particularly devastating in these young patients, has been progressively abandoned in favor of conservative techniques.

By the end of the 1980s and during the 1990s the era of meniscal replacement began in Europe, pioneered by the German (C. Wirth) and Belgian (R. Verdonk) schools. This new exciting approach to treating meniscal pathology was focused on finding a modern solution to the particularly challenging problem of a symptomatic postmeniscectomy knee. Meniscal replacement, performed earlier with an allograft and recently with an artificial substitute, is a fascinating surgical concept in this respect, but the procedure must be carefully evaluated before it can be generally adopted.

Surprisingly, to the best of our knowledge there is no book devoted exclusively to the meniscus, although many books have been written on the anterior cruciate ligament, osteoarthritis of the knee, total knee arthroplasty, etc. For this reason, we have come up with the idea of filling this vacuum by compiling current knowledge of the meniscus in one book. The aim of this book is to share the experience gained over the years by two teams interested in meniscal pathology, one from Ghent and the other from Versailles. Many chapters have been written by current and past members of these teams and we hope that this has made our work more coherent. Apart from this, we welcome the contributions of many knowledgeable European and American colleagues, who are also our friends. We would like to thank all of them.

The book is divided into chapters, from basic science to meniscal transplantation through pathogenesis, clinical and radiological manifestations, treatment methods, their outcome and evaluation, indications, the particular case of meniscal pathology in children, and the difficult problem of a symptomatic postmeniscectomy knee. At the end of each section, a brief synthesis is provided, highlighting all the main points as well as our suggestions and unresolved issues. We do not intend to claim that we have exhausted the subject: some important information may have been omitted. Nevertheless, we hope that this book will help one to approach meniscal lesions in a modern, well-considered, and appropriate manner.

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