

Disorders of the patello-femoral joint (4th ed)

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This is a classical book, which has been published again for the fourth time—approximately 15 years after the first edition. I remember the first edition very well; I was myself actively studying the patello-femoral joint and the book was very useful. It is a relatively short book, written by just one author. The fourth edition still has the same main author, who has written practically the whole book. There are only four co-authors, and their input is limited. The book is therefore fairly personal, but the fact that it has been written by only one author (something that is very unusual nowadays) makes the main issue very clear—and the book is homogeneous as a result. I feel that this is one of its main strengths.

Over the years, the patello-femoral joint has been a clinical mystery for knee surgeons and, in spite of numerous studies of the patello-femoral pain syndrome for example, especially as regards surgical treatment, several aspects are still unknown and the pain syndrome is difficult to treat.

This book, which gives a complete picture of patello-femoral disorders, is divided into 13 chapters, in which surgical treatment predominates. The first three chapters describe normal anatomy, biomechanics and clinical investigation. In particular, the chapter on the mechanics of the patella is well written, with an accurate analysis of contact areas and dynamics. The patella moves against the joint surface on the femur in a complicated fashion, something that can be seen only partially using radiographic methods. The radiographic methods are described in a very detailed and well-written chapter, where both standard methods (plain radiographs with standardized measurements of patello-femoral angles, something which is regrettably only used on a limited scale nowadays) and more advanced methods, such as MRI and radioisotope investigations, are considered. Part of this chapter, describing a practical algorithm for imag-

ing the patello-femoral joint and providing clear guidelines based on evidence, is of special interest. There is also a valuable short section on radiological evaluation in children and adolescents.

Arthroscopy of the patello-femoral joint is described in detail, first and foremost in order to describe the many surgical alternatives such as debridement, lateral release and re-alignment (which can be done arthroscopically using modern techniques, even though this method is probably not frequently used), arthroplasty, and resection of plicae and synovia. I feel that the author is skating on thin ice here. Only a few randomized, controlled studies using good scientific methods can be found in the literature regarding surgical methods, such as proximal re-alignment. However, it should be borne in mind that Fulkerson emphasizes the fact that a detailed history and clinical investigation is most important in order to be able to treat patello-femoral pain syndrome successfully. In other words, nothing can replace a good clinical investigation. It should also be remembered that, even though it is technically possible to perform medial imbrication using arthroscopic techniques, there is no evidence to demonstrate that this surgical method is better than standardized open surgery or even rehabilitation without surgery.

The author emphasizes that a fairly large part of the patello-femoral pain syndrome is probably due to dysplasia of the patella. A compact, short, yet well-written chapter on different anatomical variations of the patella, as well as malposition, also includes a short description of treatment in general and surgery in particular. The chapter on nonarthritic anterior knee pain includes classical knowledge relating to plica, synovitis, patellar tendinitis (“jumper’s knee”; surprisingly called “tendinitis” in spite of the fact that it is well known that this condition is tendinosis and not an inflammatory disease) and ilio-tibial friction band syndrome

(ITFBS, runner's knee), as well as referred pain. Anterior knee pain after surgery, such as anterior cruciate reconstruction using patellar-tendon autografts, is only sporadically mentioned despite the problem is well known, fairly frequent and often difficult to treat. This chapter mainly covers well-known facts, most of them based primarily on empirical knowledge and less on scientific evidence. There is nothing really new here.

In three fairly extensive chapters, pathologies such as patellar tilt compression, excessive lateral pressure syndrome, patellar subluxation and, finally, dislocation are described. It is logical to regard these phenomena as following one another. The author describes the natural history in patients who have lateral tilting. Regrettably, the natural history of different patello-femoral problems is relatively unknown, probably as a result of the great interest in surgical treatment. Even though lateral compression syndrome is questioned by the author, the clinical description is clear, as is the treatment algorithm. Several interesting case studies enhance the pedagogic value. In the chapter on patellar subluxation, the natural history is also described in some detail. The correlation between radiological findings and clinical symptoms is not clearcut, as emphasized by the author. The surgical orientation of the book is made clear in this chapter, and despite the fact that many patients suffering from patellar subluxation respond positively to non-surgical treatment, only 16 lines are used to describe non-surgical treatment/rehabilitation, while no fewer than 8 surgical methods are described in detail on 9 pages. Even though a large number of studies describing surgical methods, especially in terms of the short-term follow-up, have been published, randomized controlled studies with a long follow-up are rare.

In the chapter on patellar dislocation, the development of patello-femoral arthrosis and the possibilities for prevention and treatment of arthrosis are discussed. Modern surgical treatment methods are described in detail. One new feature of this book is the chapter on cartilage injuries in patients with patello-femoral pain. The correlation between the cartilage injury and the clinical symptoms is often vague, and causal treatment is therefore dif-

ficult. Modern treatment methods such as mosaic plasty and cultured cartilage cells are briefly mentioned, however, but the lack of randomized studies is obvious.

Finally, there are two chapters on the non-surgical treatment of patello-femoral articular injuries. In the first of these chapters, methods such as a patello-femoral brace, tape and muscle training are mentioned. Regrettably, the chapter is somewhat superficial and short, and focuses primarily on muscular training, which is regarded as the cornerstone of the treatment of patello-femoral pain by researchers in this field. The chapter on surgical treatment, on the other hand, is detailed and provides a very good review of the different surgical methods, opportunities and limitations.

Taken as a whole, this is a valuable book. It is well written and the main issue is extremely clear. This is probably mainly due to the fact that the book has been written by only one author—John P Fulkerson, who is without doubt one of the leading researchers in the field of patello-femoral problems. The book is amply illustrated, but it contains no color pictures. The reference list is well updated and the register is useful. In my opinion, most of the scientific knowledge relating to patello-femoral pain problems can found in this book, in fewer than 400 pages. I recommend the book to everyone who would like to increase their knowledge about the best way of treating patients with patello-femoral problems.

Are there any limitations? Yes, the book is not very pedagogic. It is very compact and therefore somewhat difficult to read, and there are only a few treatment algorithms and data boxes, new evidence based on well-performed (randomized, controlled) studies is not always reported and arthroplasty of the patello-femoral joint is not described. Despite these limitations, I feel that this book is by far the best in this particular field.

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