Arthroscopic Management of Distal Radius Fractures
Supported by EWAS
To my kids Lucía, Guillermo, and Miguel.

To my admired mentors: G. Ian Taylor, who taught me the importance of anatomy and of toying with it; Ian T. Jackson, who showed me that surgery was science before art; to Luis R. Scheker, a virtuoso, who sparked my interest in hand surgery, and to all surgeons who one way or another have influenced me throughout this journey.

Paco Piñal

I would like to dedicate this book to all EWAS members without whom none of this magnificent adventure would have been possible. I would particularly like to thank all the Presidents of our small but efficient society who worked hard to achieve the reputation and quality which now has established EWAS as a recognized, respected, and consulted scientific society.

Finally, I would especially like to thank our current President Francisco del Piñal, who worked tirelessly countless hours, in order to publish this very good book.

Christophe Mathoulin

I personally wish to dedicate a few words to the people who have helped us behind the scenes. Those people are our families (wives, partners, children, and so on). Our families harmonize our lives, help us whilst staying in the shade, support us when difficulties arise and, last but not least, stimulate us in our profession, both surgical and scientific.

I do not wish to remember how many hours we have deprived them of, how many hours we have spent with books open in front of us, working on our computers to write a chapter. I prefer to remember what our editor in chief (Paco) managed to do: he not only produced his own chapter, but also corrected all the others, giving the authors advice...
and directing the drafts in conformity with his thoughts, and at the same time keeping up with work, congresses, and collateral activities.

A big thank you to everybody! And of course thank you, Paco and Christophe, and all the authors.

At last this book will mark an era!  

Riccardo Luchetti
Seeing is believing. This is the title of a new campaign promoted by the International Agency for Prevention of Blindness to raise funds to help tackle avoidable loss of sight in poorly developed countries, truly an admirable initiative. This book could have used a similar leitmotiv: if you see what happens inside of a joint, you will be able to believe in your patient’s symptoms. But it would not be right. Arthroscopy is not out there just to make a diagnosis; it was not developed just to certify that the patient’s complaints are based on something physical. Arthroscopy was introduced to help patients, to make our treatments more reliable, to have better control of our procedures. It is merely a tool, indeed, but a marvelous one which nobody should underscore among all surgical options we have when it comes to solving wrist trauma.

Seeing is understanding. This could be another leitmotiv for these authors’ campaign to get more hand surgeons to incorporate arthroscopy in their practices. Certainly, mastering these newly developed techniques help understanding the patient’s problems. But again, that statement would also be misleading for not always what we see through the scope is the real cause of dysfunction. The enemy may be outside of the capsular enclosure. Indeed, arthroscopy provides lots of useful information, but the surgeon need not accept biased interpretations of the patient’s problem based only on what appears on the screen. Clinical judgment needs always to rely on all sorts of information, the clinical examination being most important.

Seeing is delivering. This is another possible motto for this book. If you see what you do, you will be able to deliver a better job no matter how difficult that might be. Nobody solves a puzzle without looking at it. Nobody would be happy to leave unreduced a badly displaced intra-articular fragment of a distal radial fracture if one can see it. Of course, fluoroscopy is what most of us have learned to use when reducing a distal radial fracture, but we must admit that not even the best image intensifier does offer such clear images of joint congruity as arthroscopy does. Indeed, if you see it better and you have the right skill to reduce those fragments more anatomically, your efforts will be rewarded by a higher self-esteem, but most importantly by your patient.

Seeing is preventing. If you are the first to see the enemy coming, you are better prepared than the others to work on a proper line of defense before any damage has been caused. Without a thorough perception of a problem, one can hardly prevent it from happening. A bone fragment may appear stable under fluoroscopy, but this may be a false impression which could endanger our results. Indeed, steadiness of a fragment can only be ensured by challenging its stability with a palpating prove. Certainly, using arthroscopy not only helps in the diagnosis and treatment but also, and most importantly, in the prevention of complications.
Enclosed in these pages is a synthesis of what a group of talented arthroscopists have learned in their search for better ways to solve wrist problems. There is a large amount of technical tips in this book that will facilitate our treatments; new indications may attract our attention. There is enormous interest in providing detailed how-to-do descriptions that will guide our steps toward perfecting each one’s personal arthroscopy abilities. But above all, there is a good account of a number of mistakes that need not to be repeated, and these authors learned the hard way about all of this. Let’s be grateful that they are willing to share this vast knowledge with us, the ones who did not dare to be pioneers in this field. Let’s use their experience to make less steep our learning curves.

To those who believe that there is not a real novelty in the field of wrist trauma reconstruction, here is this book to show them wrong. There are new ways of solving wrist problems; new ways that not only have been made possible as a result of the introduction of arthroscopy but also, and most importantly, as a result of the hard work and enthusiasm of those who pioneered the use of this tool in this environment. Wrist arthroscopy is here to stay, because it helps obtaining better results with less morbidity than open surgery. Arthroscopy is here to stay, because there are professionals, like the ones signing these chapters, who have collected enough experience for us to get an easy start. And this is what this book is all about: a condensed description of the indications, pearls, and pitfalls of this wonderful tool.

Because arthroscopy is here to help our patients, let’s make the most of it.

Institut Kaplan, Barcelona

Marc Garcia-Elias
“If a method produces better results, one must master any difficulty it presents and learn to do it well” (talking on Herbert screw).

Nicholas Barton. *J Hand Surg* 1997;22B:153

I still remember when we were stared at in meetings as if we were aliens (and grouped under the “arthroscopists”). This feeling of being an “outsider” was not strange to me at all, as when several of us started to carry out what was called “third-generation microsurgery,” we provoked the same feelings. This convinced me that we were on the right path, and that arthroscopy was the right tool and persuade me to keep on using in it in more and more applications.

One of the most fascinating fields where we were able to apply our maverick ideas was to distal radius fractures with articular involvement. The arthroscope allowed us to have a magnified view of the reduction, to detect associated chondral or ligamentous injuries, and to treat many of them. *It was exciting to realize how many things we could see and fix through such tiny holes!*

Surprisingly, however, and despite growing literature supporting the role of arthroscopy, many surgeons are still reluctant to systematically use the arthroscope when treating distal radius fractures, when we all agree that fluoroscopy is quite inaccurate. Two of the arguments given are that no one has yet proved that the scope is better than traditional treatments in prospective-randomized studies, and the second one, more difficult to voice, is that the operation is technically difficult. Hence, why complicate one’s life with the scope if there are no advantages to be gained?

Regarding the first argument, I must admit that the scientific purists are right: there are not yet Level 1 studies that have shown that arthroscopy is so much better than traditional methods in the treatment of distal radius fractures. One has to accept that innovation goes well ahead of comparative studies, and it will take some time before such studies are available. The problem is compounded by the fact that there are so many variations in a distal radius fracture that we will need a long time before each subtype is properly assessed. Can our patients wait so long to benefit from a method that allows us to see the reduction with minimum morbidity and maximum accuracy? After all, there have been many studies showing that articular congruity is the most important prognostic factor after an articular fracture, and the scope is no doubt *the* tool to see inside a joint.

Another question altogether is if it is easy to carry out an arthroscopic-assisted reduction of articular distal radius fractures. The answer is no. As a matter of fact, things have become more and more sophisticated since the arthroscopic management of distal radius fractures has advanced enormously in the last 15 years. Renowned specialists around the world have been brought together in this book to share with us...
their innovative way of dealing with some of the problems. Furthermore, beginners will find the basics succinctly explained by masters in a step-by-step manner. The reader may find it perplexing that each of us might manage the same injury in a somewhat different manner. This variability is explained by the fact that very little was written at the time we began our journey seeking the same goal: anatomical reduction with minimal trauma. Don’t worry! Choose the way that suits you best and go ahead….after all, all roads lead to Rome. My advice is, “build your own foundations and steadily move forward; don’t leap into too complicated cases before you are confident with the simple ones.” As an example, as a starting point, simply washing out the hematoma would be a good exercise in order just to be acquainted with the set-up.

It is pertinent to stress at this point that the arthroscope is just a tool to improve reduction, and expertise in the management of distal radius fractures with the classic techniques is more important than the arthroscopic part itself. The maxim is, “classics first and then innovation” – ignoring this will inevitably lead to unwanted problems and bad results.

If you are yet not convinced that the scope is the tool, as a simple exercise I recommend you to insert an arthroscope inside a joint with a fracture that fluoroscopically seems to be reduced. Who knows? You may just change your mind, and find this book useful. After all “seeing is believing,” as Marc Garcia-Elias writes in the Foreword.

Last, but no least, I would like to thank all authors for having accepted to become part of this project, and to Christophe and Riccardo, and the EWAS group for supporting me on it.

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President of the European Wrist Arthroscopy Society
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