Hand Transplantation
Hand Transplantation
“to my wife Mariagrazia and my sons Matteo, Michael and Pietro, for sharing all my dreams, and
to Valter, Gianni, Domenico, heroic patients, for their trust in me and my trust in them”

Marco Lanzetta

“to my grand children Louis, Hugues, Alexis, Émilie, Céline, Elsa ... dreams might come true”

Jean-Michel Dubernard
The story of this book is quite simple: after the first few hand transplants, we felt the need to have regular meetings so that our clinical experiences would be beneficially shared and serve as a basis to draw some guidelines for the future. In so doing, we soon realised that a huge amount of original clinical data and information was becoming available as we were proceeding with our operations and closely following our patients’ progress and functional outcomes. Some of these data were reported in scientific articles, but to group them in a comprehensive book seemed the best way to provide a complete review of this pioneering work.

Since starting our hand transplantation programmes, we often felt we were exploring a new area of surgery without the possibility or comfort of referring to already published work to support our own decisions. Indeed, some aspects of hand transplantation required prompt decisions based solely on personal interpretation of presenting clinical scenarios. New techniques were introduced to address different needs, such as the analysis of brain remodeling using functional magnetic resonance imaging or the use of a sensory glove to precondition the patient or accelerate the recovery of sensibility. Original work included creation of a specific consent form for patients, psychological tests for candidates and a comprehensive scoring system for assessing clinical outcome. There was the need to establish a grading system to evaluate acute skin rejection and clear criteria to select ideal candidates. From a legal point of view, there were no criteria as to how the disability of these patients would be revaluated after the hand transplant.

Clinically, the most challenging issues have been identifying the best immunosuppressive drug regime and understanding how acute rejection develops and how to reverse it. Use of an additional distant skin island allograft resulted in better rejection monitoring, at the same time avoiding the need to take multiple biopsies from the hand. Nerve regrowth and excellent sensibility/motor recovery was one of the most important results in hand transplantation, and leading experts in peripheral nerve regeneration suggest a scientific explanation. Rehabilitation of the transplanted hand has been very demanding for both therapists and patients, and specific protocols had to be implemented.

As the hand is only one of the composite tissues currently transplanted in order to correct disabilities or deformities, we include chapters on all the other types of non-life-saving allografts, including the face, knee joint, uterus, abdominal wall and larynx.

We are honoured to have such a great number of internationally renowned personalities share their experience and knowledge in this book; their contributions have made it the most complete work available on hand and other composite tissue allografts. We hope it will serve as a useful guide for those desiring to launch their own composite tissue transplantation programmes or to those who simply wish to read about the current state of the art of this new and exciting field.
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Video-Clips of Hand Transplantation (DVD)
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