

Preface

Miniplate osteosynthesis without interfragmentary compression is now considered the best treatment for fractures of the mandible. The experimental and clinical investigations that allowed the advantages of this technique to be demonstrated were carried out in Strasbourg by a team drawn from the Department of Maxillofacial Surgery of the Faculty of Medicine, the Higher National School of Arts and Industries, and the Research Group in Bone and Joint Biomechanics of Strasbourg.

This research was purposely limited to the biomechanical study of osteosynthesis of the horizontal body and mandibular angle. It was concluded that the best method of surgical treatment in mandibular fractures was inevitably the result of a compromise in which all the constraints under which the operator works should be taken into account. These include anatomical and physiological conditions, biological requirements with regard to the equipment used, mechanical properties of the mandible and mechanical characteristics of miniaturized equipment set against the forces which are exerted on the bone, surgical imperatives.

The choice of osteosynthesis by small plates in other sectors of facial surgery (such as mandibular condyles, midfacial surgery, and orthopedic surgery) arises in part from the therapeutic orientation of the surgeon, based on nonexperimental but logical deductions from investigations carried out on the mandible, partly from the convenience that the plates offer, and is finally confirmed by the results obtained.

The improvements in quality of treatment of facial injuries far exceed the expectations that we had following the results of the first biomechanical research in the early 1970s.

The essential objectives of our biomechanical and clinical research were to apply the rigorous principles of modern orthopedic surgery to maxillofacial surgery and to reduce the empiricism which all too often guides the choice of therapy.

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Many thanks are owed to all oral and maxillofacial surgeons who have disseminated the concept of miniplate osteosynthesis internationally, both by their convictions and by the quality of their work. They are too numerous for me to name them all individually. Some of them are co-authors of this book, including in particular Prof. Dieter Pape and Prof. Klaus Gerlach, with whom I have enjoyed a prolific scientific cooperation.

Maxime Champy