Repair of Complex Orbital Fractures: Technical Problems, State-of-the-art Solutions and Future Perspectives

B Hammer,**MD*, *DMD*, C Kunz,***MD*, *DMD*, A Schramm,****MD*, *DMD*, R deRoche,*****MD*, J Prein,†*MD*, *DMD*

Abstract

Within the wide range of severity of orbital fractures, the small group of complex fractures causes most of the sequelae. Therefore identification of severe injuries and adequate treatment is of major importance. The introduction of craniofacial techniques made possible a wide exposure of even large orbital wall defects and their reconstruction by grafts. In spite of significant progresses, repair of complex orbital wall defects remains a difficult surgical problem even for the experienced. This paper outlines the specific technical problems concerning surgical anatomy, exposure and defect reconstruction of this type of injuries. A number of new developments providing interesting future perspectives for orbital wall reconstruction such as intraoperative navigation, endoscopic techniques and new materials are discussed.

Ann Acad Med Singapore 1999; 28:687-91

Key words: Defect reconstruction, Exposure, Materials, Surgical anatomy

Klinik und Poliklinik für Mund-Kiefer und Gesichtschirurgie

Albert Ludwigs Universität Freiburg, Germany

Address for Reprints: Dr B Hammer, Clinic for Reconstructive Surgery, University Hospital Basel, Spitalstrasse, CH-4031 Basel, Switzerland. E-mail: ckunz@uhbs.ch

^{*} Associate Professor of Oral and Maxillofacial Surgery

^{**} Senior Registrar

^{****} Associate Professor of Plastic Surgery

[†] Professor of Oral and Maxillofacial Surgery and Head

Clinic for Reconstructive Surgery

University Hospital Basel, Switzerland

^{***} Resident