ries in certain incidences makes it mandatory to have a team approach consisting of a neurosurgeon and a maxillofacial surgeon. In this presentation, we have tried to evaluate the association of head and maxillofacial injuries, their pattern of involvement, management and associated complications among the patients reported to Craniofacial unit, Department of Maxillofacial Surgery, SDM College of Dental Sciences, Dharwad from the year 2000 to 2007. In the follow-up, subjective and objective complications were assessed like continued CSF leak, ocular and cosmetic problems

doi:10.1016/j.ijom.2007.08.447

O17.41

Three-point bending strength of a biodegradable ''free-form'' osteosynthesis plate

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Statement of the problem: The Inion Freedom Plate™ (thickness 1.4 mm), is intended to use so that the plate can be cut and shaped to the desired form during operation. The aim of the study was to evaluate the bending strength of the straight Inion Freedom Plate™ compared to Inion OTPSTM 2.5 system plate. *Materials and methods*: A three-point bending test was carried out to determine the load carrying capacity of the Inion Freedom Plate™, straight in comparison to Inion OTPSTM 2.5 system plate. Yield load (*N*), corresponding bends (mm) and stiffness (N/mm) of the samples were determined and recorded. *Results*: Inion Freedom Plate™ straight versus Inion OTPSTM 2.5 system six-hole plate: Regarding the testings, the straight Inion Freedom Plate™ showed a significantly higher stability than the Inion OTPSTM 2.5 system six-hole plate. Further, the stiffness of the straight Freedom Plate™ was found to be significantly higher than the stiffness of the Inion OTPSTM 2.5 system six-hole plate. *Conclusion*: The change of the shape of a biodegradable plate and the principle of drilling and tapping through the plate lead to an improvement of its stability. Using these techniques, the 1.4 mm Free Form Plate™ shows a higher mechanical stability than the conventional 2.5 mm biodegradable OTPS plate.

doi:10.1016/j.ijom.2007.08.448

O17.42

Frontonasoorbital trauma treated in Ljubljana University Hospital

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Background: Orbit is involved in 40% of all facial fractures. There is considerable variety in severity, ranging from simple nondisplaced to complex comminuted fractures. Complex comminuted fractures (up to 20%) are responsible for the majority of complications and unfavourable results. Orbital fractures are classified as internal orbital fractures, zygomatico-orbital fractures, naso-orbitoethmoidal fractures and combined fractures. The ophthalmic sequealae of midfacial fractures are usually oedema and ecchymosis of the soft-tissues, subconjuctival haemorrhage, diplopia, iritis, retinal oedema, ptosis, enophthalmos, ocular muscle paresis, mechanical restriction of ocular movement and nasolacrimal disturbances. More severe injuries such as optic nerve trauma and retinal detachments have also been reported. Within the wide range of orbital fractures, small group of complex fractures causes most of the sequealae. Therefore, identification of severe injuries and adequate treatment is of major importance. The introduction of craniofacial techniques made possible a wide exposure even of large orbital wall defects and their reconstruction by bone grafts. In spite of significant progress, repair of complex orbital wall defects remains a problem even for the experienced surgeons. *Results*: In 2006, 121 facial injuries were treated at our department (Clinical Centre Ljubljana, Department of Maxillofacial and Oral Surgery). Orbit was involved in 65% of cases. Isolated inner orbital fractures presented 4% of all fractures. Seventeen (14%) complex cases were treated, five of them being NOE, five orbital (frame and inner walls), three zygomatico-orbital, two FNO and two maxillo-orbital fractures. *Conclusions*: Final result of the surgical treatment depends on severity of maxillofacial trauma. Complex comminuted fractures are responsible for most of the unfavourable results and ocular function is often permanently damaged (up to 75%) in these fractures.

doi:10.1016/j.ijom.2007.08.449

O17.43

Role of prophylactic antibiotics in mandibular fractures—a triple blind randomized controlled trial

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The role of prophylactic antibiotics in the management of mandibular fractures has not been properly substantiated. With indiscriminate use of antibiotics and increased incidence of antibiotic resistance, their role warrants urgent investigation. This study aimed to analyse the role of prophylactic antibiotics in management of mandibular fractures. A pilot study was conducted on 27 patients equally divided into three different groups: Group 1, no antibiotics; Group 2, penicillin and Group 3, cefotaxime. This was followed by a triple-blind randomized controlled trial (RCT) on 46 patients over a 18-month period divided similarly with patients in Group 1 being administered a placebo. All prophylactic drugs were administered as a single preoperative dose. Surgical wound infections (SWIs) were assessed based on C.D.C. guidelines by a blinded investigator. The overall infection rate for 71 patients was 16.44%. Of these, five cases (20.83%) of Group 1, four cases (16.6%) of Group 2 and three cases (12.0%) of Group 3 constituted the SWIs. Statistical analysis showed no significant difference in the infection rates between the three groups ($p < 0.05$). Our study, the only triple-blind RCT, has failed to show any definitive advantage with the use of prophylactic antibiotics in the management of mandibular fractures.

doi:10.1016/j.ijom.2007.08.450

O17.44

Management of cranio-maxillo-facial fractures, 5 years experience

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High-velocity RTA injuries have been the cause of the complex cranio-maxillofacial fractures in this part of the country,