Denture repairing is a very common practice encountered in everyday clinical removable prosthodontics. It may be consisted of fractured dentures, debonded or broken denture teeth etc. These may be due to intraoral fatigue failure of acrylic resin or the accidental dropping of dentures outside the mouth. The purpose of this presentation is under the lights of the best available evidence to identify first from surveys the most common and more imporant denture repairing procedures. It well known that the purpose of repairing e.g. a fractured denture is to restore its strength at least to the original one. It seems in practice that it is not the fact. The most popular methods of repairing dentures will be analyzed regarding their strength and the attempts to enhance it through reiforcing materials like metal wires or fibers will be presented. Finally suggestions and thoughts for further investigations considering he recent available evidence will be discussed.

13.
Fibre - Gives Inner Strength to Patients and Their Dentures

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As soon as Methyl Methacrylate became "the" denture base material it became clear that it had a weakness and a tendency to fracture. In the early days "improvements" to tooth position were suggested as a way to prevent fractures. Soon various other ways were tried but there were always problems.

The search for an easy cheap way of strengthening "acrylic" has continued. This paper will look at the history of complete denture strength from the patient's perspective and some of the techniques of denture base reinforcements that have been used over last 40 years.

Will fibre help our dentures as much as it helps us?

14.
Overdentures Versus Fixed Prostheses

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Two concepts of prosthetic restorations exist for the edentulous jaw: the fixed prosthesis (mostly screw retained) and the overdenture. It appears that overdentures are preferably placed in old patients and in compromised situations.

Since the eighties, a series of studies - including long-term results - have demonstrated the reliability of treatment with fixed prostheses for the upper and lower jaw. An increasing number of studies on mandibular overdentures supported by only two implants give evidence of the effectiveness of this treatment modality. Comparable data for maxillary overdentures are still missing.

While dentists tend to base the selection of the prosthetic design on the number of implants that can be placed, other criteria have to be considered: esthetic appearance, facial morphology and restitution of lost hard and soft tissues, costs of implant-prosthodontic treatment, stability of the prostheses, complications and adjustments required, assessment of individual needs. From an economic point of view overdentures supported by two to four implants might be preferred.

Prosthetic methods in general and related to implants are not evidence based. They relay on clinical experiences, patients' demands technical considerations and reports of success and failure. However, from clinical experience, well-designed clinical concepts have evolved and the benefit of the patients concerned appears to be high and obvious.

The lecture will discuss the use of implants for prosthodontic rehabilitation in the completely edentulous jaw. Indications and various types of removable prostheses are presented and variations of design discussed. Biomechanical aspects of fixation and stabilization of prosthesis complete the overview.

15.
The Role of Bone Morphogenetic Proteins in Regeneration of Bone and Cartilage

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In the last ten years a significant amount of knowledge has accumulated in the field of molecular and developmental biology. New genes responsible for the skeleton development have been discovered, and their function in the postnatal life of mammals has been defined. The most important genes responsible for the morphogenesis on all three embryonic envelopes include bone morphogenetic proteins (BMPs) and cartilage derived morphogenetic proteins (CDMPs), recently renamed into morphogens. Since

their discovery, many investigators world wide have defined the morphogen receptors, signal transduction pathways, and their role in several organs. Recently, the use of recombinant human BMPs in the regeneration of long bones and the craniofacial skeleton in patients with bone non-unions have been approved in Europe, USA, Canada and Australia. In pre clinical studies it has been demonstrated that locally applied BMP-7 initiates cementogenesis, and the regeneration of periodontal ligament and the alveolar bone. CDMPs have a promising role in articular cartilage regeneration and are also good candidates for clinical trials in humans.

16.

Prosthodontics in the Third Millenium

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The current trends in Prosthodntics will doubtless continue to develop. Can these trends, as regards central areas of prosthodontics, then be identified as community aspects, biological apects, biomechanical aspects and quality of life aspects?

We can consider Prosthodontics in a micro perspective - the treatment of the individual patient or oral cavity or in a macro perspective - the use of prosthodontics on a population basis, or even on a global basis. Can we expect the developing countries to catch up with the industrialised countries, and can we expect the highly developed countries to have less need of prosthodontic services during the new millenium just started?

Many other questions can be raised when we try to look into the future:

- Will the speciality of Prosthodontics develop and be approved in more countries, and will the need for these specialists increase or decrease?
- Will the character of Prosthodontics as an academic discipline change?
- Will EPA still be an important society in the future?
- Will mankind survive the next millenium shift in 1000 years' time?

We can dream about the far future, but perhaps it is wiser to be realistic and only try to make forecasts for the next few decades - which seems difficult enough in itself.

Are there any high mountains to climb or deep ravines to cross before we meet again in Geneva in September 2003?

ORAL PRESENTATIONS

17.

Overloading of Dental Implants: a Myth or Reality?

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INTRODUCTION: Dental implants have reported success rates of over 90% over long periods of time. However, failures still occur and seem to be unpredictable. One factor that is increasingly considered a strong candidate in failure of dental implants is occlusal loading. Overloading of dental implants during functional and parafunctional activity has been extensively discussed from the clinical point of view, but little scientific evidence.

AIM: The aim of this article is to review literature related to loading and overloading implants through masticatory and parafunctional activity, in order to attempt to clarify causality of overload in relation to implant failure. Materials and Methods: All types of publications, published in English up to December 2001 were included. Pubmed search was done using various keywords and the "related article" feature. All identified publications and in vivo studies were reviewed but case studies were excluded.

RESULTS AND DISCUSSION: Osseointegrated implants can fail due to very high occlusal load under experimental conditions. However, the safe and the overload levels are not known. What is clear is that loss of osseointegration is more frequent in early implant loss in the presence of micromotion. Apart from this, it is difficult to find a clear relationship between loading and *in vivo* tissue response.

CONCLUSION: Within the context of the published literature, the consensus on overloading of dental implants is still an unresolved issue. It can be concluded that more research is required to reach a better understanding on the relationship between overload and interfacial biomechanics. Nevertheless, the clinician should be aware that increased loading, associated with parafunctional activities, has a higher risk of biomechanical complications.