



American Academy of Maxillofacial Prosthetics
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Program Speaker – Nathalie Vosselman, DDS

Title

Challenges on Rehabilitation of the Maxilla with Implants: Surgical and Prosthetic Approach

Abstract

Oral rehabilitation of the extremely resorbed edentulous maxilla is challenging. Implants are used to improve the retention and stability of prostheses thereby achieving good oral function. To insert implants a reconstruction with bone grafts is often necessary, in particular when the maxilla is severely resorbed or the maxillary sinus is pneumatized. A variety of maxillary sinus floor augmentation techniques can be applied followed by insertion of endosseous implants and fabrication of an implant-supported maxillary overdenture. The 10 year results will be presented including treatment options after implant failure due to peri implantitis.

There are also situations when additional techniques are needed to provide sufficient support for an implant-supported prosthesis. This is often the case after ablative surgery. Subsequently implant placement is often needed to enable oral rehabilitation. Several reconstructive techniques are available. The size and extent of the maxillary defect, patient factors and comorbidities are decisive factors on which surgical, prosthodontic, or combined rehabilitation has to be followed after a maxillectomy. When tumour resection has resulted in a relatively small maxillary defect, primary closure or surgical reconstruction with a local soft tissue flap alone can lead to excellent functional and aesthetic results. For larger maxillary defects, reconstruction with a vascularized flap and/or prosthetic rehabilitation may be needed.

Conventional obturator prostheses have their drawbacks, mainly caused by lack of retention of the prostheses. Placement of implants in the native bone of the maxilla improve retention of the obturator prosthesis thereby increasing the success of prosthetic rehabilitation. This requires sufficient bone volume for reliable implant placement. When the desired implant location from a prosthodontic perspective is not feasible with endosseous implants, zygomatic implants can be used to obtain retention of obturator prostheses. These implants are preferentially placed during the ablative surgery. In this lecture a three-dimensional virtual workflow to secure an accurate placement of zygomatic implants for immediate implant retained prosthetic rehabilitation after maxillectomy will be presented.

Biography

Nathalie Vosselman (DDS) studied dentistry at the University of Amsterdam and graduated in 2003. She started her private dental practice in Haarlem in 2004 where she mainly provides complex restorative and prosthetic dental care. She has completed her training in Maxillofacial Prosthodontics at the department of Oral and Maxillofacial Surgery and Center for Special Dental Care at the University Medical Center Groningen (UMCG). Following completion of her training she earned a staff position and works in the department as a maxillofacial Prosthodontist primarily focusing on oral and facial rehabilitation of Head and Neck cancer patients. In 2019 she started her PhD research on the subject of 3D workflows in prosthetic rehabilitation of Head and Neck oncology patients.