Oral and Maxillofacial Prosthetic Rehabilitation of Patient with a Mid-facial Deformity Secondary to Basal Cell Carcinoma: Case report

Background:

Acquired facial deformities can be caused by trauma, head and neck cancer, infection or other etiologies. This can lead to multiple co-morbidities including psychosocial challenges, speech and swallowing problems, nasal regurgitation, and compromised masticatory function. In this case report, we present a 75-year-old patient with a 20-year history of Basal cell carcinoma of nose leading to an extensive mid-facial deformity extending into the oral cavity. Prosthetic rehabilitation is achieved using a multidisciplinary approach and a combination technique of intraoral and facial prostheses.

Methods:

A combination extra/intra-oral prosthesis was fabricated using a multidisciplinary approach. A 3-D model, obtained from medical CT scan, was printed and used for pre-prosthetic planning. Minor pre- prosthetic surgery was required to improve the fit of final prosthesis. Preliminary facial wax up was created on the printed model. Simultaneously, an intra-oral prosthesis was fabricated using conventional technique and preliminary facial wax up helped guide contours of intra-oral prosthesis. Magnets were incorporated in the obturator to retain facial prosthesis. A silicone facial prosthesis was fabricated and extrinsically colored to match skin tone and provide life like aesthetics.

Speech recordings, with and without prosthetics, were completed to measure speech intelligibility and dietary assessments were completed.

Results:

As a result of the efforts of Head and Neck Surgery, Oral Oncology, Anaplastology, and Speech Pathology a combination of intraoral and facial prosthesis was fabricated which improved the patient's speech intelligibility, oral phase swallowing, confidence leading to an overall quality of life. Significant improvement in speech intelligibility can be noted in speech recordings without prosthesis, with intraoral prosthesis and with facial prosthesis.

Conclusion:

Patient outcomes can be optimized using a multi-disciplinary approach to fabrication of oral and facial prosthesis.