



Management of a patient with dental hypoplasia and hypodontia

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Introduction

Hypodontia, the congenital absence of 1 – 6 permanent teeth in one patient, often is combined with dental hypoplasia. Treatment options may include restorative dentistry in combination with implantology. Before this is done, however, orthodontic gap opening and alignment of the teeth will often be necessary.

Patient and Findings

A 22-year old male patient presented with agenesis of the tooth 22. The tooth 23 had moved forward, nearly into the position 22. The upper incisors and canines were slightly hypoplastic. This resulted in significant spacing in the region of the anterior maxillary dental arch. There were no other serious orthodontic abnormalities.

Fig. 1: Hypodontia and hypoplasia result in spacing



Fig. 2: Compromised smile before therapy



Treatment

Orthodontic, implantologic and restorative methods were used. As the tooth 23 had already moved almost into the position 22 spontaneously, it was decided to open the gap at the position 23 instead. Thus, excessive orthodontic movements of the tooth 23 could be avoided. By orthodontic means, the tooth 23 was adjusted into position 22, the gap at position 23 was opened, and the maxillary incisors

Fig. 3: Gap opening at position 23, whilst the tooth 23 is moved to position 22



Fig. 4: Ceramic veneers and ceramic crown ready to be cemented



were aligned. However, spacing was left in parts to create normal size teeth later by restorative means. A Xive® CellPlus®-implant (diameter 3.4mm) was inserted at position 23.

After the healing period a full ceramic crown was cemented on a cercon abutment onto the implant. To cover up the hypoplasia, ceramic veneers were made for the incisors simultaneously. The same material (Cergopress®) was used both for the crown and for the veneers.

Fig. 5: Frontal view after orthodontic, restorative and implantologic treatment



Fig. 6: Perfect smile after therapy



Conclusion

Many aspects have to be taken into account when treating patients with dental hypoplasia and hypodontia. Cooperation between orthodontist, implantologist and restorative dentist will help to achieve good results.

Literature

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