Interdisciplinary Treatment Of An Adult With A Debilitated Dentition

Names of Clinicians
Date
Occasionally orthodontists will be challenged to treat adult patients who not only have a malocclusion, but also have a myriad of other dental problems that complicate the plan for the orthodontist. These patients require interdisciplinary treatment often involving periodontal therapy, jaw surgery, endodontic therapy, and restorative dentistry in addition to the orthodontics. The following case will illustrate how a team can manage these types of multidisciplinary problems.
Background Information

1. 34 years 8 months of age
2. Doesn’t want to lose her teeth
3. Medical history is noncontributory
4. Recently treated by a periodontist
5. No temporomandibular joint symptoms
6. Cost of treatment is not a problem
1. Moderate periodontitis
2. Now seeing periodontist routinely
3. Significant anterior bone loss
4. Guarded prognosis lower incisors
5. Gingival grafting in lower anterior
6. Class III furca lower left first molar
7. Moderate anterior tooth mobilities
Centric Relation = Centric Occlusion
Radiographic Findings

1. Significant anterior bone loss
2. Guarded prognosis lower incisors
3. Class III furca lower left first molar
4. No endodontic problems
5. Supereruption lower left premolar
Treatment Objectives

1. Align the teeth
2. Improve periodontal health
3. Reduce anterior overbite
4. Reduce anterior overjet
5. Facilitate future restorations
6. Improve facial profile
7. Establish good interdigitation
1. Non extraction approach. Align both arches, close part of the upper spaces to reduce the overjet. Place two implants on the left side and one implant on the right side. Restore remaining teeth as necessary.

2. Extract mandibular right and left first premolars, close lower and upper extraction sites and leave space for a single-tooth implant in the maxillary left canine region.

3. Extract mandibular central incisors and close the mandibular space orthodontically. Then perform maxillary posterior segmental surgery to close the maxillary posterior spaces from the distal and a sagittal split osteotomy to lengthen the mandible. Restore the maxillary arch with a conventional fixed prosthesis to replace the missing canine.
Treatment Results

Pretreatment

Posttreatment
Pretreatment

Posttreatment
Conclusions

This patient was treated with a combined approach of orthodontics, jaw surgery, periodontal maintenance, and eventual restorative dentistry. The extraction of her mandibular central incisors was instrumental at eliminating two hopeless teeth and allowing her to maintain her natural mandibular teeth.