

## Combined periodontic-orthodontic treatment of moderate periodontitis with anterior maxillary spacing

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### Background

Periodontitis can lead to migration of involved teeth, with a flaring, extrusion, space opening, and loss of interdental papillae in the frontal region so as to cause severe functional and esthetic problem. Most of severe pathologic migration require a team approach included periodontic, orthodontic, and prosthetic treatment to achieve clinical success in terms of function and esthetics.

The aim of this study is to discuss interdisciplinary approach of periodontics, orthodontics, and prosthetic dentistry to fulfill the needs of periodontally involved patients with maxillary anterior spacing.

### Materials & methods

Two patients who were diagnosed chronic periodontitis through clinical and radiographic examination were included in this study. Before orthodontic treatment, periodontal treatment was performed to eliminate or reduce plaque accumulation and gingival inflammation. Treatment of the patients included strict plaque control, supragingival and subgingival scaling, root planing and returned once a month for professional plaque control. After plaque control was stable, referred to orthodontics in order to treat space closure of maxillary anterior spacing. Orthodontic treatment was limited to anterior portion with posterior occlusion maintained. Orthodontic treatment included intrusion, retroclination of proclined and spaced maxillary incisors and lingual retraction of mandibular incisors with fixed appliance. The force used in this case was continuously light to avoid damaging the periodontium.

### Results

Gingival inflammation and tooth mobility was reduced following periodontal treatment. Posttreatment radiographic evaluation revealed positive bone remodeling around the alveolar crest. After orthodontic treatment, maxillary incisors were intruded and retracted and displayed proper overjet and overbite. Also interdental papillae were recovered resulting in improvement of esthetics.

### Conclusion

This case report demonstrates that combined perio-orthodontic approach can better serve the needs of periodontally involved patients with maxillary anterior spacing in terms of function, esthetics, occlusion, and periodontal condition.