HEREDITARY GINGIVAL FIBROMATOSIS: A FAMILY STUDY

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Introduction
Hereditary gingival fibromatosis (HGF) is a rare oral disease, characterized by a gradually progressive enlargement of the maxillary and mandibular gingiva, with a prevalence of about 1:750,000 (1). HGF is considered an autosomal-dominant disease, with a few studies demonstrating that it can also be an autosomal-recessive inheritance (2). Different mutations have been associated with HGF (3). One of the most common is a single nucleotide polymorphism (SNP) in the Son of Sevenless-1 gene (SOS-1) (4). Histologically the HGF is characterized by fibrous enlargement of the gingiva. The connective tissue appears highly collagenized, avascular, with sparse differentiated fibroblasts and very few inflammatory infiltrates (7). HGF can occur as an isolated disease affecting only gingiva, or as part of a syndrome (5). The onset of the gingival overgrowth usually coincides with the eruption of permanent incisors. Furthermore, the presence of teeth seems to be necessary for HGF to occur, because the condition disappears or recedes with the loss of the teeth (6). The clinical expression of the HGF is highly heterogeneous. The enlargement of gingiva is fibrotic and may interfere with speech, mastication, occlusion and facial appearance (7). Although the gingival enlargement does not directly affect the alveolar bone, pseudopockets can occur, which facilitate plaque accumulation and subsequent bone loss (8). Variable different treatment modalities have been reported.

Purpose
The purpose of this case report is to give insight into the biological mechanism, the diagnosis and the treatment of the disease.

Clinical presentation
A systematically healthy 9-year-old female presented to the Postgraduate Clinic of Periodontology of the Aristotle University of Thessaloniki, Greece with HGF as an isolated disease affecting only gingiva. Clinical examination revealed the presence of pseudopockets, especially in the anterior teeth with secondary inflammation. Clinical crowns were extremely short. The relatives of the patient have also been diagnosed with HGF. The grandmother and mother, 70 and 46 year old respectively, reported that they had been undergone gingivectomy during childhood. The mother had a second surgery due to tissue relapse after the first gingivectomy. Moreover, the sister of the patient, a 6-year-old girl, showed clinical characteristics of the disease.

Diagnosis
The HGF diagnosis was based on the family history and the clinical appearance.

Treatment plan
Treatment consisted of the 3 phases of periodontal therapy.

Phase I: Etiological therapy with oral hygiene instructions, scaling and root planing

Phase II: Reevaluation and periodontal surgery (open flap debridement and gingivectomy and extraction of deciduous teeth)

Phase III: Maintenance (During maintenance therapy the patient presented with significant gingival overgrowth and a second gingivectomy-open flap debridement was done)

References