CASE REPORT

A clinically hidden but severely destructive entity

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SUMMARY

The diagnosis 'Aggressive Periodontitis' (AgP), defined by the International workshop for a classification of periodontal diseases and conditions in 1999, refers to the multifactorial, severe and rapidly progressive form of periodontitis, which primarily—but not exclusively—affects younger patients. Direct and indirect bacterial effects influencing the host immune response play a significant part in the aetiology of AgP comparable with chronic periodontitis. In addition to various virulence factors of specific periodontal pathogens, a genetic predisposition influences the outbreak and progression of the disease. This report describes the disciplinary treatment of AgP patient with progressing full-mouth bone resorption.

BACKGROUND

Periodontitis is characterised by an inflammatory reaction that affects tooth attachment tissues and can be classified as chronic periodontitis or aggressive periodontitis¹ (AgP) according to clinical characteristics and rate of progression. The current classification of periodontal disease describes two clinically distinct forms of periodontitis. AgP is characterised by rapid progression and severe periodontal destruction, mainly seen in younger individuals.² Chronic periodontitis is characterised by a lower rate of progression.³ AgP constitutes a group of rare and rapidly progressing forms of periodontitis that are frequently characterised by an early age of clinical onset.⁴ AgP is defined as a destructive periodontal disease affecting more than 14 teeth in young individuals. Its aetiology has been linked to the presence of *Aggregatibacter actinomycetemcomitans*,^{5–7} host response defects^{8–10} and possibly to genetic inheritance^{11–14}. In contrast, chronic periodontitis is characterised by a lower rate of progression³ although like AgP it can reach a severe stage, leading to tooth loss and edentulism. Many clinicians report difficulty in establishing a differential diagnosis for AgP and chronic

Figure 2 After probing in upper incisor.

periodontitis due to an overlapping 'gray area' that often negates a clear-cut diagnosis. Such issues raise the question of whether these are actually two distinct clinical entities. Hence it is important to establish a proper regime and treatment plan.

CASE PRESENTATION

An 18-year-old female patient was referred by a general practitioner to the department of periodontology. A review of her medical history did not reveal any systemic disease. Familial aggregation of AgP was denied. An initial examination revealed probing depths of 7–10 mm at teeth numbers 16, 15, 14, 13, 11, 21, 23, 24, 25, 26, 36, 35, 33, 42, 43, 44 and 46, with bleeding on probing (figures 1–4). Suppuration was registered at teeth numbers 16, 15, 14, 11 (figure 5). An orthopantomograph was taken which revealed severe horizontal and craters (figure 6).

INVESTIGATIONS

Orthopantomograph was taken.

TREATMENT

The primary goal in the treatment of this patient was to control her periodontal infection.

Figure 1 Preclinical. **Figure 3** Clinical probing in right lower molar.

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Figure 4 Probing in right lower canine.

Periodontal treatment was started by oral hygiene instruction and subsequent scaling and root planing under local anaesthesia (figure 7). Manual and ultrasonic instruments were used for scaling and root planing. Craters and root surfaces were degranulated and cleaned with curettes, rinsed with saline and dried with cotton swabs. An external bevel incision with crevicular incision was given in the left lower quadrant (figure 8) and was

Figure 5 Suppuration.

Figure 7 Preoperative view.

debrided with curette and saline (figure 9). Intrabony defects were degranulated and allograft was placed in the defects and sutured (figures 10 and 11). Coe-pak was placed and patient was recalled after 10 days for suture removal (figure 12).

DISCUSSION

Rescala *et al*¹⁵ reported similar microbiological and immunological parameters for subjects with chronic periodontitis and AgP who showed comparable periodontal disease severity. Herein we report dental management of an otherwise healthy patient diagnosed with generalised AgP and rapidly progressing bone loss throughout the mouth. Generalised AgP features loss of supporting tissues in addition to changes in tooth mobility and pathological tooth movement that are associated with sustained periodontal tissue destruction. In such cases, a comprehensive and effective treatment plan often includes periodontal therapy to relieve inflammation. The present patient showed a successful periodontal response with no progressive bone loss during or after treatment.

The strategy of treatment planning for patients with periodontitis aggressive or chronic periodontitis is well established. For patients with aggressive or chronic periodontitis, phases of treatment, systemic, initial, re-evaluation, surgical, maintenance and restorative, are generally accepted. The amount of active

Figure 6 Orthopantomograph view.

Figure 8 Incision.

Figure 11 Suture.

Figure 9 Osseous defect.

Figure 12 Coe-pak.

planning required at each step may be greater for the patient with aggressive periodontal disease. To retain teeth cannot help but complicate the treatment-planning process. Therefore, the patient with aggressive periodontitis to have experienced attachment loss would be expected at a younger age, at a faster rate and to a greater extent than the patient with chronic periodontitis.¹⁶

In this study, the initial periodontal treatment was followed by scaling and root planning along with external bevel and conventional flap.

Competing interests None.

Patient consent Obtained.

Figure 10 Degranulation of defect.

Learning points

- ▶ Aggressive periodontitis (AgP) is an entity which is of great clinical importance as it develops without much of clinical appearance.
- ▶ For effective treatment plan diagnosis should be made as early as possible as the destruction occurs at a very rapid rate.
- ▶ Clinicians report difficulty in establishing a differential diagnosis for AgP and chronic periodontitis due to an overlapping 'gray area' that often negates a clear-cut diagnosis. Such issues raise the question of whether these are actually two distinct clinical entities. Hence it is important to establish a proper regime and treatment plan.
- ▶ A proper postoperative evaluation is needed to check the prognosis.

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