

Original Research Article

Management of a Case of Severe Generalized Aggressive Periodontitis

Kane Aboubacar S. T

Department of Pathology, Andaman & Nicobar Islands Institute of Medical Sciences, Port Blair, India

*Corresponding Author

Dr. KANE Aboubacar Sidiki Thisse

Abstract: Periodontal disease (PD) or periodontal disease is a multifactorial disease with infectious etiology and inflammatory manifestation leading to the destruction of tooth support tissues. This is a patient, 25 years old on the day of the consultation, single, homemaker resident in the district of Bamako. She had come for consultation in the Odontology Department of the Military Hospital in Bamako. The results of the clinical examinations led to the diagnosis of severe generalized aggressive periodontitis. In agreement with the patient, teeth with a mobility greater than 3 were extracted for a prosthetic restoration. Function and aesthetics can be restored by good parodontoprosthetic coordination.

Keywords: Severe generalized aggressive periodontitis, management, extraction, prosthesis.

INTRODUCTION

Periodontal disease (PD) or periodontal disease is a multifactorial disease with an infectious etiology and inflammatory manifestation leading to the destruction of tooth support tissues (Kané, A. S.T. *et al.*, 2017). These tissue destructions are mainly due to an inflammatory reaction where some cytokines produced by the host play a major role. They are classified as localized or generalized periodontitis, chronic or aggressive, severe or moderate (Armitage, G.c. 1999). These Periodontal Diseases (PD) are widespread and can affect up to 90% of the population with a varying degree of severity of disease (Äyräväinen, L. *et al.*, 2017). This clinical case illustrates the diagnosis and the parodontoprosthetic management of a patient with severe generalized aggressive periodontitis.

OBSERVATION

The patient was 25 years old on the day of the consultation, single, homemaker living in the Bamako district. She had come for consultation in the Odontology Department of the Military Hospital in Bamako. In fact, over the past four years, the patient had noticed an increasing mobility of a certain number of teeth, as well as dental migrations.

At the anamnesis

The patient complained of migrations, spontaneous bleeding, gingival recessions and halitosis. Faced with this clinical picture, we suspected the

presence of an associated general pathology. Thus, different examinations were requested, namely the Blood Count (NFS) and fasting blood glucose levels which proved to be normal, as well as the HIV serology which did not show a positive result. The anamnesis at the first consultation did not report a general health problem. The patient indicates that she had never been in consultation with a dental surgeon and that she did not brush her teeth because of the pain it caused.

At the exam

- Exo-oral examination
- The exo-oral exam was peculiar.
- The endo-oral examination

At the endo-oral examination, mouth opening was normal through fingers, the mucous membranes were well colored, no abnormality detectable with the naked eye, no carious teeth, neither absent nor blocked. The plaque index of Silness and Loe (1964) was 3.68. The gingiva had severe inflammation and gingival hyperplasia. These clinical signs of inflammation concerned all the two maxillae and were accentuated at the level of the anterior sectors (Fig.1).

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View before J = 0

Fig.1: Dental plaque and Inflammation.

Periodontal examination revealed the presence of a very marked generalized attachment loss. The gingival index of Loe and Silness (1963) was 3.68. The furcations (RAMFJORD 1979) were of degree III for 16, 17, 26, 36 and degree II for 27 and 37 and degree I for 47. The dental mobilities (MILLER 1950) made it possible to diagnose degrees 4 on the 15, 14, 13, 12, 11, 21, 22, 23, 24, 25, 35, 33, 32, 31, 41, 42, 43, 44 and 45 degrees 2 for the 17, 16, 26, 27, 37, 46 and 47 (Fig.2).



Fig. 2: view after motivation to hygiene

Diagnostic

The results of the clinical and radiological examinations made it possible to make the diagnosis of an aggressive generalized severe active periodontitis. A more conservative attitude could not be considered since it was necessary to extract the teeth with a poor or reserved prognosis in order to eradicate the infectious foci. Thus, in agreement with the patient, teeth with a mobility greater than 3 were extracted for a prosthetic restoration. (Fig. 3). A drug prescription was made based on antibiotic therapy (amoxicillin 1.5 mg combined with 750 mg metronidazole for three weeks), analgesic (Paracetamol 500 mg) and mouthwash for three weeks.

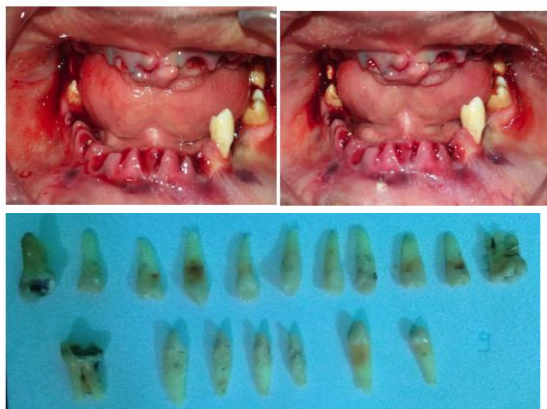


Fig.3: the day of extraction of movable teeth

Two weeks, 14 days after the patient returned for a check. The impression for the recording of the occlusion wax was made 4 weeks later (Fig. 4).



Fig. 4: the images after the extraction as well as the occlusion wax.

After casting the primary models, the individual trays were made and relaunched before taking the secondary impressions. The intermaxillary relationship is recorded to allow the fitting of the model teeth to the articulator



Fig. 5: Restoration made of provisional mobile prosthesis

The patient was followed regularly for control and maintenance sessions for the remaining teeth.

DISCUSSION

The type of periodontal disease, the importance of alveolysis, the number of remaining teeth, the available bone volume, the patient's needs and the predictability of treatment are factors that determine the preservation or extraction of teeth (Ruppert. M. *et al.*, 2003).

It should be noted that in the study by Kamagate A. *et al.*, (2013), the patient responded favorably to initial treatment and periodontal surgery, which allowed them to restore periodontal health rapidly after two months. And the prosthetic treatment had allowed them to restore the function and aesthetics of the patient. Infection control is the very first step in periodontal treatment. It uses a mechanical control of the plate by a rigorous dental hygiene (Chemlali, S. *et al.*, 2014).

According to the study by Mombelli A. *et al.*, (2011), in a patient with advanced generalized aggressive periodontitis. The critical therapeutic step was thorough root planing, followed by systemic treatment with 500 mg metronidazole and 375 mg amoxicillin, 3 / day for 7 days. When comprehensive prosthetic rehabilitation is required, the extraction of a tooth does not necessarily depend on its own prognosis, but rather on the long-term success of the overall treatment plan at the functional, aesthetic and financial level (Nyman, S., & Lindhe, J. 1979).

CONCLUSION

Severe generalized aggressive periodontitis is a pathology with a low prevalence but having aesthetic, functional consequences that are difficult to manage. The age of onset sometimes very young does not help the patient to understand all possible irreversible consequences and sometimes makes it difficult for the healthcare professional. Strategic extractions can prevent the loss of important substances and maintain adequate bone morphology. For cases where treatment has not been initiated in time and the disease has progressed to terminal stages, function and esthetics can be restored by good parodonto- prosthetic coordination.

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