Knowledge and Practical Attitudes of Surgeons-Dentists of Bamako District Facing the Septum Syndrome

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Academic Editors: Alessandro Leite Cavalcanti and Wilton Wilney Nascimento Padilha

Received: 16 January 2018 / Accepted: 22 April 2018/ Published: 28April 2018

Abstract

Objective: To determine the knowledge and attitude of dental surgeons in Bamako regarding the management of septal syndromes. Material and Methods: It was a cross-sectional and descriptive study conducted in the Bamako District, Mali. The following variables were collected: sociodemographic, training, knowledge of septal syndrome, therapeutic decisions and treatment. The data was collected from a survey sheet and processed by Epi-info Software version 3.5.3 and by the language R. Results: A total of 67 professionals participated in this study, of which 88.1% were men. Seventy-six point one percent of the Dental Surgeons have recognized septum syndrome as an emergency. The management of the emergency, followed by the completion of the comprehensive care later represents the attitude of 71.6% of the dentists. Sixty-four point two percent of dentists remove irritating elements under gingival, 80.6% prescribe an anti-inflammatory, 38.8% prescribe chlorhexidine gel and 26.9% reconstruct the point of contact. Conclusion: This study demonstrates that Dental Surgeons in general have adequate average knowledge and attitude for their management of septal syndrome.

Keywords: Septo-Optic Dysplasia; Health Knowledge, Attitudes, Practice; Dentists.
Introduction

Periodontal disease is a complex inflammatory disease that destroys the supporting tissues of the tooth (periodontium) with a multifactorial etiology it has been linked to diabetes, chronic obstructions of the respiratory tract, chronic kidney disease, metabolic syndromes, certain types of cancers and rheumatoid arthritis. Periodontal diseases are widespread and can affect up to 90% of the population with a varying degree of severity of the disease [1].

Periodontal emergencies can be classified into five types: infectious urgency, painful urgency, mobility, spontaneous expulsion dental loss, and postoperative bleeding [2]. Painful emergencies consist of periodontal necrotic diseases, endo-periodontal lesions, postoperative pain, dentinal hypersensitivity and septal syndrome. Septum syndrome is a form of alveolar osteitis that affects the interdental septum. It is characterized mainly by violent pain, most often during meals or during chewing. The pain of the septum syndrome results from mechanical compression but especially from the associated bacterial development, which causes inflammation of the site [3].

Septum syndrome is the consequence of a loss of a point of functional contact between two teeth. Most often, he signs the presence of a carious lesion, an overflowing obturation or a defective prosthesis. If the treatment is relatively fast, tissue loss will be minimal and full restoration is possible. Some cases may be responsible for true bone necrosis that may require surgery [3].

Dietary settlement in the interdental space or overflowing obturation can induce spontaneous pain, usually felt during meals. These can be violent and badly localized, confused with pains of pulpitis. On examination, the papilla often appears swollen. Pressure on the swelling causes pain and signs the diagnosis [2].

Although these attacks rarely involve a vital risk for the patient, the consequences of these clinical situations can have repercussions throughout the human body, which can lead to potential complications of the general health of the patient, and the loss of the dental organ. This is why it requires the practitioner to be aware of the clinical and radiological signs of the various pathologies, in order to make a precise and rapid diagnosis that will be followed by appropriate and appropriate care for each patient.

Data on the knowledge and ability of dental surgeons on the management of septal syndrome in the literature are old and limited [4]. In Mali, the data are almost non-existent. That is why we initiated this study whose objective is to determine the knowledge and attitude of dental surgeons in Bamako regarding the management of septal syndromes.

Material and Methods

Study Design

It was a cross-sectional and descriptive study lasting 3 months from August 15 to November 15, 2017, conducted by the Odontology Department of the Bamako IHB Military Hospital Infirmary in the Bamako District, Mali.
In Mali, 104 dental surgeons are registered on the official list of the College of Dental Surgeons (OCDM) including those of the Central Directorate of Health Services DCSSA Armies. Those professionals who were not part of the District of Bamako were excluded. Data were collected in a standardized form.

The following variables were collected by a trained research assistant: general information variables: sociodemographic (age and sex), training (participation in continuing education), knowledge of septal syndrome, therapeutic decisions and treatment (the techniques used, monitoring and prognosis).

Statistical Analysis

The data were processed by Epi-info Software (Centers for Disease Control and Prevention, USA) version 3.5.3 and by the language R. A descriptive analysis of the frequencies was performed.

Ethical Aspects

The study was submitted to and approved by the Ethics Research Committee of the Hospital Military Bamako. Informed consent was obtained from all participants.

Results

The participation rate was 64.4%. Among the practitioners, 88.1% are men (59 men) and 11.9% are women (8 women), with a sex ratio of 7.3. Dental surgeons were between 25 and 34 years old in 46.3% followed by 45 to 54 years with 26.9%, 35 to 44 years (16.4%) and 55 years and older (10.4%).

Septum syndrome has been recognized as an emergency by dental surgeons in 76.1% of cases. The majority, 89.5%, noted periodontal abscess as an emergency in periodontology followed by pericoronitis (79.1%) and while ulceronecrotic periodontitis and ulcerative necrotic gingivitis were noted respectively in 38.8% and 32.8% (Figure 1).

![Figure 1. Different emergency situations in periodontology.](image-url)
The management of the emergency, followed by the completion of the complete care later represents the attitude of 71.6% of the dental surgeons, 17.9% take charge of the urgency and refer the patients whereas 21% send them immediately to a periodontologist (Table 1). Regarding the emergency treatment of septal syndrome, nearly 64.2% of dentists make a withdrawal of irritating elements under gingival, 80.6% prescribe an anti-inflammatory, 38.8% make the prescription of the gel of chlorhexidine and 26.9% reconstruct the point of contact (Table 1).

Table 1. General attitude of dentists to septum involvement and emergency management of septum syndrome.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Attitude</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You take care of the urgency of the attack and you realize the complete care yourself later</td>
<td>48</td>
<td>71.6</td>
</tr>
<tr>
<td>You do the entire treatment. 1st day</td>
<td>25</td>
<td>37.3</td>
</tr>
<tr>
<td>You take charge of the emergency and you refer</td>
<td>12</td>
<td>17.9</td>
</tr>
<tr>
<td>You immediately refer your patients to a periodontologist</td>
<td>14</td>
<td>21.0</td>
</tr>
<tr>
<td>Septum Syndrome Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Removal of irritating elements under gingival</td>
<td>43</td>
<td>64.2</td>
</tr>
<tr>
<td>Anti-inflammatory prescription</td>
<td>54</td>
<td>80.6</td>
</tr>
<tr>
<td>Chlorhexidine gel prescription</td>
<td>26</td>
<td>38.8</td>
</tr>
<tr>
<td>Open curettage</td>
<td>23</td>
<td>34.3</td>
</tr>
<tr>
<td>Antibiotic prescription</td>
<td>31</td>
<td>46.3</td>
</tr>
<tr>
<td>Reconstitution point of contact</td>
<td>18</td>
<td>26.9</td>
</tr>
</tbody>
</table>

Discussion

The practitioners surveyed, the majority were men and these results corroborate those of previously published findings in Saudi Arabia [5]. In this study, most dentists were between 25 and 34 years old and are in agreement with the described in the literature [5]. This result could be explained by the opening of the Dentistry sector in Mali giving access to more young people.

In response to the emergency treatment of septal syndrome, 64.2% of dentists were withdrawing subgingival irritants, 80.6% prescribed an anti-inflammatory, 38.8% prescribed chlorhexidine gel and 26.9% reconstructed the point of contact. The present data show an expressive number of dental surgeons who recognized septum syndrome as an emergency. The majority, noted periodontal abscess as an emergency in periodontology followed by pericoronitis and ulceronecrotic periodontitis and ulcerative necrotic. These results are comparable to those from the literature [6]. This is explained by the fact that the majority of dentists have attended continuing education in periodontology at conferences and postgraduate courses.

The emergency management of septal syndrome, followed by the completion of the comprehensive care later represents the attitude of most represents dental surgeons and these results are comparable to those previously reported [7] who are due to the high rate of participation in conferences and postgraduate courses of dentists. According to them the treatment consists of removing subgingival debris, decontaminate the inflammatory area and apply the chlorhexidine gel.
In a second step, the insufficient point of contact will have to be reconstituted or the overflowing shutter eliminated.

According to previous authors, it is necessary to remove the possible sub-gingival irritating elements from the inter-dental space using a probe, a silk thread or a jet of water flosser [6]. This action can lead to immediate relief of the patient.

The results obtained in this study include as a limit the number of practitioners who did not participate. This could be explained by the non-inclusion of dental surgeons who are not registered in the Order's Table. It adds to this factor the total absence of certain practitioners. In addition we did not include the periodontologists, those of the public health service, prosthetic dentists and some of the dental surgeons refused to participate in the investigation according to their consent.

**Conclusion**

Septum syndrome may be uncommon but is often associated with severe inflammatory processes with sometimes irreversible tissue damage. The management must then be fast and effective to relieve the patient and to stop the infection and / or inflammation. This study demonstrates that dental surgeons in general have the knowledge and average adequate attitude for their management of septal syndrome. Our role is therefore to relieve our patients and to respond, at most, to their grievances but also and above all to prevent these emergencies by being as much as possible parodonton-competent in our business.

**References**