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Research Article

Causes of Dental Extractions in the Odontology Service of Bamako Military Hospital (Ihb) Mali

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Abstract: The objective of this study was to determine the causes of dental extractions in patients seen in the department.Human dentition performs very important functions such as chewing, swallowing, phonation, pleasure and aesthetics; Unfortunately sometimes it happens for some reason or other that some teeth are extracted. This was a retrospective, descriptive study that was performed in the Odontology Department of the Military Hospital of Bamako IHB, over a period of 3 years from January 1, 2013 to December 31, 2015. For this purpose a data sheet has been established for this purpose. The patients whose files are complete were selected, the data analysis was done by the software Epi Info version 3.5.3 and by the language R.We had 15202 cases of consultation in the department during the three years, of which 61.74% were women. Dental extractions due to caries accounted for 79.99%. According to the permanent maxillary teeth, the incisivo-canine block was the most affected with 62,48%, mandibular, the molar sector was the most represented with 75,52%.Despite the development of numerous endodontic techniques and the growing number of dental surgeons, dental extraction remains the preferred treatment of choice for patients. Thus the focus should be on information campaigns on the need for teeth and dental care.

Keywords: Bamako, causality, dental caries, hospitals military, periodontal diseases, tooth extraction.

INTRODUCTION

Human dentition has very important functions such as chewing, swallowing, phonation, pleasure and aesthetics; unfortunately sometimes it happens for some reason or other that some teeth are extracted. Dental extraction is the set of maneuvers that allow the tooth to come out of the socket where it is located (Mahamadou, S. 2014).

Oral health depends on social and environmental factors as well as strongly on lifestyle factors. These factors pose risks for most chronic diseases or protective factors, such as appropriate exposure to fluoride or good hygiene. They reach mainly disadvantaged and socially marginalized populations. They have harmful effects on patients with pain, functional impairment and deterioration of quality of life (Ong, G. *et al.*, 1996).

According to WHO, oral health is an essential and integral component of health in general. An alteration of the oral health status has considerable consequences: disorders of the chewing of the speech, the sleep and the concentration, the esthetics and the image of oneself ... Sometimes the consequences are insidious: the Children with poly caries have a deficit of 25% or more in relation to weight, ideal for children of the same age. This is all the more important when it comes to the child's oral health, since it directly affects his or her good development and quality of life.

The causes of dental extractions can be multiple: periapical infection, tooth mobility, root fracture. In a study in Japan on the reasons for permanent tooth extraction, six reasons were cited for dental caries, periodontal disease, eruption problems, trauma, orthodontics, and other reasons (Ong, G. *et al.*,

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1996 ; Reich, E., & Hiller, K. A. 1993 ; Quteish Taani, D. S. M. 2003 ; Angelillo, I. F. *et al.*, 1996).

Objective of this study was to determine the prevalence of pathologies involved in dental extractions and to describe the epidemiological characteristics of patients seen in the service.

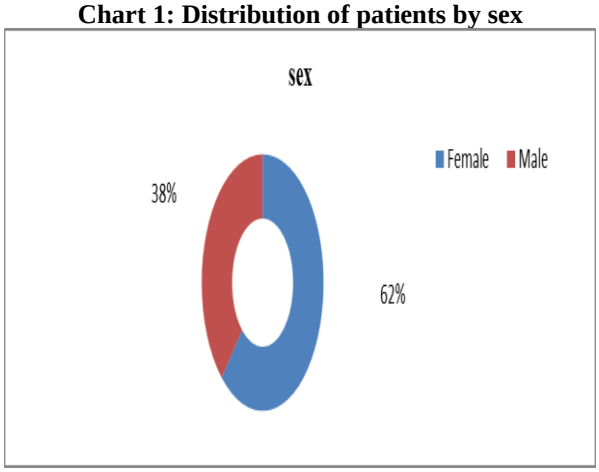
MATERIALS AND METHODS

This was a retrospective, descriptive study that was performed in the Odontology Department of the Military Hospital of Bamako. With a duration of 3 years (January 01, 2013 to December 31, 2015), Our study to carry on files: Registry of consultation, military family notebook, as well as the civilians who were consulted in the service. For this purpose, a data collection sheet has been drawn up, which includes: sex, age, diagnosis, profession, reason for consultation and treatment received. Patients whose files are complete were selected. The data was processed by epi-info software version 3.5.3 and by the language R.

RESULTATS

1- Epidemiological Aspect

Chart 1: Distribution of patients by sex



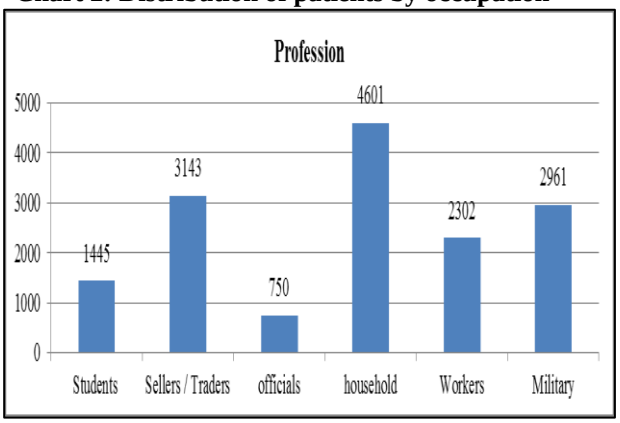
We had 15202 cases of consultation in the department during the three years, 61.74% of whom were women.

Table 1: Distribution of patients by age group

Age	Number	Percentage
• à 10	924	06,08
11 à 20	1949	12,82
21 à 30	**5179**	**34,07**
31 à 40	4623	30,41
41 à 50	1887	12,41
51 à 60	527	03,47
61 and plus	113	00,74
Total	**15202**	**100**

The age group most affected was 21 to 30 years old with 34.07% of cases followed by 31 to 40 years old with extremes of 2 to more than 61 years old.

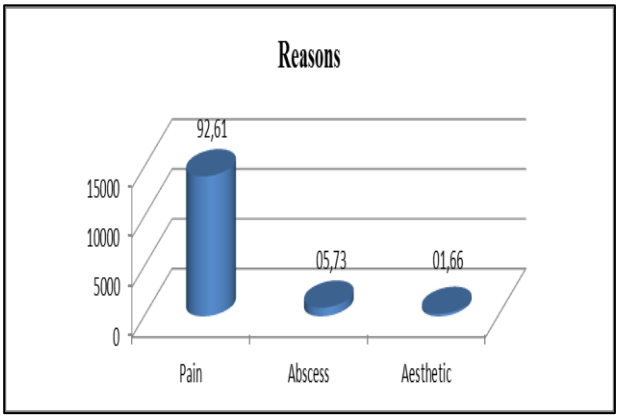
Chart 2: Distribution of patients by occupation



The occupation housewives or housewives were the most numerous with 30.26% followed by Sellers / traders with 20.67%.

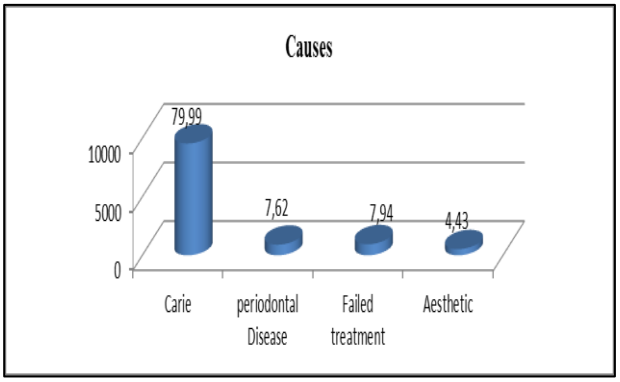
2- Clinical Aspect

Chart 3: Distribution of patients by reason of consultation



According to the reasons for consultation, the pain to represent 92.61%

Chart 4: Distribution of patients by causes of dental extractions



Dental extractions due to caries accounted for 79.99% more than the majority of cases.

Table 2: Distribution of Patients by Permanent Maxillary Teeth

Maxillary teeth	Number	Percentage
18	309	05,42
17	106	01,86
16	253	04,43
15	71	01,24
14	54	00,94
13	21	00,36
12	903	15,83
11	913	16,01
21	914	16,03
22	833	14,61
23	40	00,70
24	47	00,82
25	82	01,43
26	503	08,82
27	26	00,45
28	297	05,21
TOTAL	5701	100

According to the maxillary permanent teeth, the incisivo-canine block was the most affected with 62, 48% followed by the 26 with 08, 82% and the 18 with 05, 42%.

Table 3: Distribution of Patients by Permanent Mandibular Teeth

Mandibular teeth	Number	Percentage
38	927	09,76
37	937	09,86
36	1523	16,02
35	235	02,47
34	164	01,72
33	104	01,09
32	60	00,63
31	64	00,67
41	79	00,83
42	124	01,30
43	136	01,43
44	123	01,29
45	1027	10,80
46	1757	18,49
47	1625	17,10
48	408	04,29
Total	9501	100

According to mandibular permanent teeth, the molar sector was the most represented with 75.52%.

Table 4: Distribution of Patients by Temporary Maxillary Teeth

Temporary maxillary teeth	Number	Percentage
55	71	1,83
54	54	1,39
53	21	0,55
52	903	23,28
51	913	23,54
61	914	23,56
62	833	21,49
63	40	1,03
64	47	1,21
65	82	2,12
Total	3878	100

According to the maxillary temporary teeth, the incisivo-canine block to represent the majority of the extractions on the teeth of milks.

Table 5: Distribution of Patients by Temporary Mandibular Teeth

Temporary mandibular teeth	Number	Percentage
75	101	48,55
74	25	12,01
73	8	3,84
72	5	2,40
71	3	1,44
81	6	2,88
82	2	0,96
83	7	3,36
84	12	5,76
85	39	18,75
Total	208	100

According to the temporary mandibular teeth, the area of the molars was the most affected.

DISCUSSION

The present retrospective, descriptive study has made it possible to determine the causes of dental extractions in patients consulted in the Odontology Department of the Military Hospital in Bamako, Mali.

This study has a limitation related to the low level of evidence of retrospective studies in general, however the results remain useful for further studies with a high level of scientific evidence.

Thus, in 15202 patients, the prevalence of women was observed in 61.74%, it was the same in that of Sidibe (Mahamadou, S. 2014) with 52% and that of Oginni *et al.*, (1993) in Nigeria. This result could be explained by the fact that women are more concerned with their oral hygiene than men.

The most represented age group was 21 to 30 years old. This result is comparable to those of other authors (Aliou, M. T. 2008; Sanya, B. O. 2004). As this segment is the most active in the population, it is more exposed than other parts of the population, especially the consumption of cariogenic foods and insufficient exposure to fluoride.

Housewives or housewives were the most represented with 30.26%. This result is comparable to that of Traore (Traore, H. 2009) with 45% of housewife.

According to the reasons for consultation, the pain accounted for 92.61%; even constant for some authors like Ntumba, M.k. (1993) who had found 56% in their studies and Traore (Traore, H. 2009) with 58.50% of cases of pain.

Dental extractions due to caries accounted for 79.99%, more than the majority of cases. This confirms the data of several authors: 9. Sanya, B. O. *et al.*, (2004) with 52.60% of cases; Oginni, F.O. (2005) with 56.40%.

According to the maxillary permanent teeth, the incisivo-canine block was the most affected with 62, 48% followed by the 26 with 08, 82% and the 18 with 05, 42%.

According to mandibular permanent teeth, the molar sector was most represented with 75.52%; These results were confirmed by a study conducted at Lobé Campus University Hospital (TOGO) by Agoda, P. (1996-2001) with 29% of cases. According to the maxillary temporary teeth, the incisivo-canine block torepresent the majority of the extractions on the teeth of milks. According to the temporary mandibular teeth, the area of the molars was the most affected.

CONCLUSION

Despite the development of numerous endodontic techniques as well as the growing number of dental surgeons, dental extraction remains the preferred treatment of choice for patients. Dental extraction, a practice that affects all teeth including the incisivo-canine block with maxillary and mandibular molars. Thus the focus should be on information campaigns on the need for teeth and dental care.

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