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RESEARCH ARTICLE

Periodontal Health in Pregnant Women Study of 208 Pregnancies at Chu Gabriel Touré. Bamako. Mali

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Abstract

Introduction: The aims of this study was to investigate the epidemiological characteristics of periodontal disease observed in pregnant women attending antenatal clinics in the Department of Obstetric Gynecology CHU- Gabriel Touré of Bamako.

Materials and Methods: We realized a transverse, analytical study based on the observation of the periodontal status of pregnant women over 2 months (May-July 2013), 208 observations identified prenatally. Data were collected from medical records, entered and analyzed using SPSS 19.0 software.

Results: We included 189 cases (90, 90 %). The age group most affected was that of 20-29 years (52, 40 %) with a mean age of 26, 88 and extremes ranging from 10 to 45 years. Married women were represented, with 94, 70 % of the cases, they were multigravidae in 71, 00 % of cases. Housewives accounted for 40, 40 %. HIV positive women represented 14, 00 % of the sample. The CPITN index corresponding to the scaling was greater in patients, between 11 weeks and 41 weeks 'gestation.

Conclusion: This study shows the high frequency of periodontal disease in pregnant women, hence the importance of partnership between healths professional's reproduction and those of oral cavity, but also the systematic integration of oral assessment during prenatal consultations.

Keywords: Periodontal disease, Pregnancy, Gingival index, CPITN.

Introduction

Pregnancy is a modified physiological condition, with repercussions on the buccal sphere in general, and on periodontal tissues in particular [1].

Pregnant women represent a category of the population that is particularly susceptible to oral diseases.

Oral pathophysiology related to pregnancy is both complex and variable in nature.

The predominantly histological similarity between the genital tract and the oral mucosa, in particular the superficial periodontium, suggests that pregnancy reveals pathological signs evident at this level [2].

It has been known for more than a century that gingivitis can worsen during pregnancy, and has been classified as a clinical entity under the name of gravid gingivitis. This is not seen in all pregnant women [3], and according to Glickman I [4], it is a transient condition with clinical signs appearing in the second month of pregnancy, regressing from the ninth month, and after Childbirth.

Several studies have shown the effects of the pregnancy state on the periodontal condition, but the etiopathogenesis of these periodontal diseases has remained obscure. Redford et al. [5], have shown that apart from dental plaque there are oral, biological, behavioral and social factors that have important implications for oral health during pregnancy .

The purpose of this study is to study the epidemiological characteristics of periodontal disease observed in prenatal pregnant women.

Material and Method

We carried out an epidemiological, transversal and analytical study based on the observation of the periodontal status of pregnant women, over a period of 2 months (from May to July 2013). Our study took place in the Department of Obstetric Gynecology of CHU Gabriel Touré. For this study we

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associated medical questionnaires, with an oral examination. The population concerned was all pregnant women who came for prenatal examinations. We used the LOË and SILNESS gingival index and the Community Needs Assessment Index (CPITN).

Results

Out of a total of 208 women, we recorded 189 cases of periodontal disease, 90.90% of our sample. The most affected age group was 20-29 (52.40%), with an average age of 26.88 and extremes ranging from 10 to 45 years (Figure 1). Married women were represented, with 94.70% of cases (Table 1). Housewives accounted for 40.40% (Figure 2), they were multigestated in 71.00% of the cases (Figure 3). The most represented gestational age was 32 S.A (20.70%), (Table 2). Our patients had median gingival inflammation in 76.00% of the cases (Figure 4). The gingival index corresponding to an average inflammation is the most representative. Test Chi2 = 7.18; P = 0.07; Ddl = 7. (Table 3). The Gingival Index corresponding to mean inflammation was the most represented

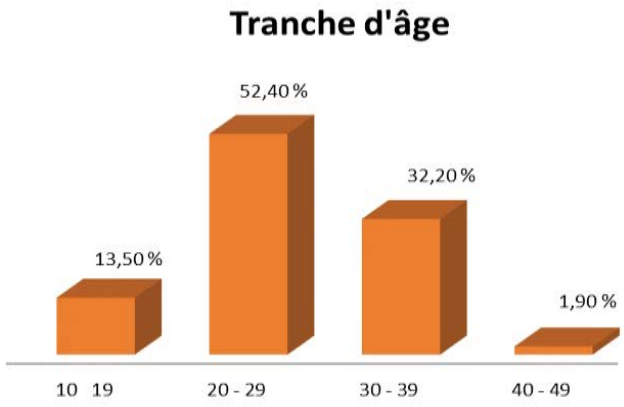

Figure 1: Distribution of patients by age group (year).

Marital status	Effective	Fréquency (%)
Married	197	94,70
Célibate	11	5,30
Total	208	100,00

Table 1: Distribution of the number of patients by marital status.

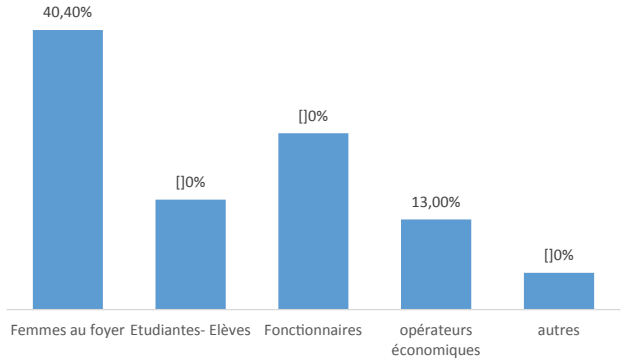

Figure 2: Distribution of patients according to their occupation.

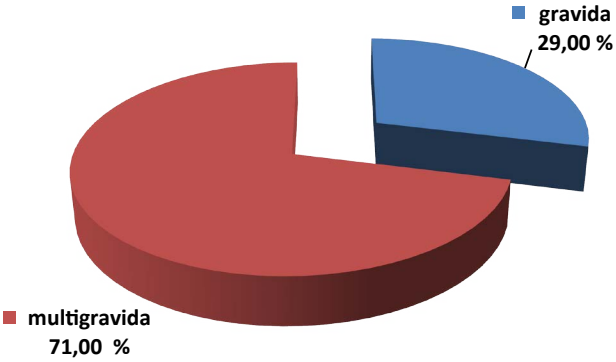

Figure 3: Distribution of patients by obstetrical history.

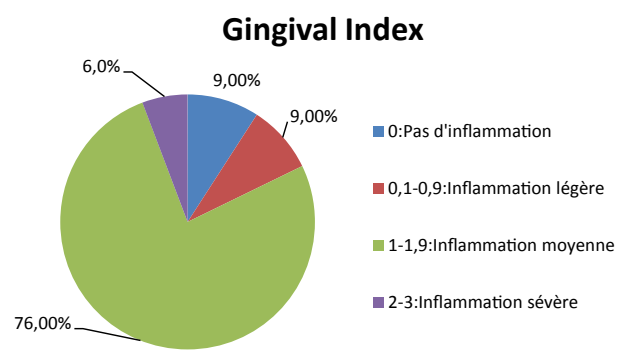

Figure 4: Distribution of patients according to the gingival index (GI).

Gestational age	Effective	Fréquency (%)
6 S.A	2	1,00
11 S.A	10	4,80
15 S.A	19	9,10
19 S.A	20	9,60
24 S.A	34	16,30
28 S.A	32	15,40
32 S.A	43	20,70
36 S.A	34	16,30
41 S.A	14	6,70
Total	208	100,00

Table 2: Distribution of patients by age of pregnancy (AS).

during the 32nd S.A of pregnancy with a strength of 36. Test Chi2 = 2.38; P = 0.303; Dd1 = 2. (Table 4). The CPITN corresponding to scaling is more important in patients between the 11th S.A and the 41st S.A. The presence of pockets was noted in patients from the 15th S.A. Test Chi2 = 2.66; P = 0.2640; Dd1 = 2. (Table 5).

Discussion

In our study we recorded an overall frequency of 90.90% of cases of periodontal disease; This trend was observed by LOE and SILNESS [6] and PERSSON et al. [7], with a frequency of 100.00% and 74.00% of periodontal disease, respectively.

In our series the most affected age group was the 20-29 age group (52.40%), with an average age of 26.88 and extremes ranging from 10 to 45 years, which corroborates Study Seck

IG	Age group (year)				Total
	10- 19	20-29	30-39	40-49	
0: No inflammation	2	15	2	0	19
0.1-0.9: Inflammation slight	3	11	4	0	18
1-1,9: Average inflammation	22	78	56	3	159
2-3: Severe inflammation	1	5	5	1	12
Total	28	109	67	4	208
Test $Chi_{2=}$7,18 ; P= 0,07 ; ddl=7.					

Table 3: Patient Distribution by Age and Gingival Index.

	GINGIVAL INDEX				
The age of pregnancy	No inflammation	Inflammation	Average inflammation	Severe inflammation	Total
6S.A	1	0	1	0	2
11S.A	0	1	9	0	10
15S.A	3	2	13	1	19
19S.A	3	3	12	2	20
24S.A	5	0	29	0	34
28S.A	3	4	20	5	32
32S.A	4	2	36	1	43
36S.A	0	5	27	2	34
41S.A	0	1	12	1	14
Total	19	18	159	12	208

Table 4: Distribution of Patients by Gestational Age and Gingival Index.

The age of pregnancy	Need index for periodontal treatment				Total
	NO TREATMENT	HYGIENE	SCALING	CURETTAGE	
6S.A	1	1	0	0	2
11S.A	0	4	6	0	10
15 S.A	3	4	11	1	19
19 S.A	3	3	12	2	20
24 S.A	5	7	19	3	34
28 S.A	2	3	22	5	32
32 S.A	5	6	28	4	43
36 S.A	1	14	18	1	34
41 S.A	0	5	6	3	14
Total	20	47	122	19	208

Table 5: Distribution of the CPITN according to the gestational age of the patient.

CT et al [8] in Senegal, with a prevalence of 40.00% among 20-24 year olds.

Our patients were mainly married (94.70%), which is confirmed by the study of VERGNES J [9], with 95.00% of the patients who lived as a couple.

The level of oral hygiene was assessed by the determination of the gingival index. Our results showed that the patients examined had an average oral hygiene (63.00%) or a poor (28.00%) oral hygiene. There is a statistically significant relationship between gingival inflammation and oral hygiene (P = 0.0005). On the other hand, we did not note a statistically significant relationship between gingival inflammation and the age group (p = 0.066) and gestational age (P = 0.303). Our results are in agreement with the study carried out by Raber-Durlacher et al. [10,11], since it has been shown that the gingival inflammation resulting from the accumulation of the bacterial plaque is related to the physiological alterations associated with pregnancy.

Assessment of the need for periodontal care in pregnant women revealed that more than half needed scaling (58.70%), and 9.10% had a need for gingival curettage due to the presence of periodontal pockets; This result approximated that of SECK C.T [8] (11.00%).

For periodontal pockets, our study showed the presence of pockets from the 15th SA of gestation, and the depth of these periodontal pockets became greater in the interval between the 15th SA and the 32nd SA, to regress to the 36th SA of pregnancy.

Nevertheless, 22.60% of our patients had an important need for teaching and motivation for oral hygiene. Although all of our pregnant women received advice on how to brush and brush, how to brush, the type of toothbrush and toothpaste, and the need to visit the dentist. Somewhere else.

Conclusion

This study shows the high frequency of periodontal disease

in pregnant women, which is why a partnership between reproductive health professionals and those in the oral cavity is important. It is more urgent to integrate systematically the oral assessment, during prenatal consultations.

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