Departments of Periodontology
Royal Dental College
Århus, Denmark
and
Institute of Odontology
University of Bergen
Norway.

PERIODONTAL DISEASE IN PREGNANCY

I. PREVALENCE AND SEVERITY

by

HARALD LÖE
JOHN SILNESS

Epidemiological research reported during the last ten years has produced new information about the distribution and character of periodontal disease in general, as well as its relation to various endogenous and exogenous factors. A survey of this literature has recently been published (*Löe* 1963). Undoubtedly, the introduction of special indices for the recording of periodontal conditions has greatly facilitated the collection and processing of the data. Appraisals of the available periodontal index systems have been made by *Ramfjord* (1959) and *Russell* (1960).

The purpose of the investigation to be reported in the present and subsequent articles was:

(I) by the use of proper index systems, to assess the incidence and variations of periodontal disease during pregnancy and after parturition,

(II) to study the oral hygiene status of pregnant women and its correlation with the gingival condition under such circumstances, and

(III) to study the response of the gingivae to local treatment during pregnancy.

Several reported investigations have dealt with the *frequency of occurrence* of periodontal disease in pregnancy. *Ziskin and co-workers* (1933) found that less than 40 per cent of the pregnant women in their survey had pregnancy gingivitis. *Maier & Orban* (1949) reported that about 55 per cent of their material showed pathological conditions, whereas *Hilming* (1950) found that 100 per cent of the examined women had or developed gingivitis during pregnancy. Recently, *Hasson* (1960) found that gingivitis occurred in 30 per cent of pregnancies, whereas *Ringsdorf and associates* (1962) found that 72 per cent of pregnant women had gingivitis. Therefore recent literature reports the rate of occurrence varying between 30 and 100 per cent.

An explanation of these discrepancies may be found in the difference of opinion regarding the *specificity* of the gingival changes during pregnancy. Based on clinical and histological studies, *Maier & Orban* reached the conclusion that gingivitis in pregnancy is an inflammatory condition which in principle does not deviate from that which may be found in non-pregnant patients. *Hilming,* on the other hand, held that the state of the gingiva in pregnancy is found in two main forms: a specific pregnancy gingivitis and a nonspecific gingivitis, the distinction being based on the tendency to spontaneous healing post partum. *Hilming* agreed with *Maier & Orban* that the clinical manifestations may not be considered specific for pregnancy, although observations were made to the effect that the *severity* of the inflammatory changes were increased in pregnant women as compared to normal. *Hilming* also found that the severity of gingival inflammation increased during gestation, reaching a peak just before parturition. However, in analyzing the periodontal status of the patients in relation to the trimesters, *Ringsdorf et al.* found that although there seemed to be some fluctuations during the term of pregnancy, there were no statistically significant differences.

MATERIAL AND METHODS

In the present study, 121 pregnant and 61 post partum women were examined once for periodontal disease. The examination took place at Sagene Health Center for Mother and Child, Oslo, Norway, during the period September 1961—July 1962. Oral examination took place in a conventionally equipped dental clinic

in connection with the patients seeing their physician at the Health Center. The mean age of the group of pregnant women was 25.3 years (range 18–34) and the age of the post partum group 25.7 years (range 18–38). Most of the patients belonged to the working class or the lower middle class.

At the time of oral examination of the pregnant women these had been pregnant for periods varying from 2 to 9 months.

Table I shows the distribution of the patients according to months of pregnancy and to months after parturition, respectively.

Table I.

Distribution of the patients according to months of pregnancy and post partum.

Months								Parturition	Months				
2	3	4	5	6	7	8	9		2	3	4	5	or more
10	11	13	14	20	21	17	15		13	12	14	22	

Total number of pregnant patients: 121
„ „ post partum „ : 61

The individuals were scored for periodontal conditions by means of the Periodontal Index (PI) System (*Russell* 1956). The periodontal condition around each tooth was rated on a scale (0—8) based upon the clinical signs of marginal periodontitis according to *Russell:*

CRITERIA FOR THE PERIODONTAL INDEX SYSTEM

Score	Criteria
0	NEGATIVE There is neither overt inflammation in the investing tissues nor loss of function due to destruction of supporting tissues.
1	MILD GINGIVITIS There is an overt area of inflammation in the free gingivae, but this area does not circumscribe the tooth.
2	GINGIVITIS Inflammation completely circumscribes the tooth, but there is no apparent break in the epithelial attachment.
6	GINGIVITIS WITH POCKET FORMATION The epithelial attachment has been broken and there is a pocket (not merely a deepened gingival crevice due to swelling in the free gingivae). There is no interference with normal masticatory function; the tooth is firm in its socket, and has not drifted.
8	ADVANCED DESTRUCTION WITH LOSS OF MASTICATORY FUNCTION The tooth may be loose; may have drifted; may sound dull on percussion with a metallic instrument; may be depressible in its socket.

The index of the individual is taken as the average score for the teeth present in the mouth. Persons with a clinical diagnosis of gingivitis usually score from 0.1—2.0, those with destructive disease (resorption of alveolar bone and pathologically deepened pockets) from 1.5—5.0, and individuals with teeth where periodontal breakdown is so advanced as to interfere with function of the teeth score from 4.0—8.0 (*Russell* 1962). During the planning of the present survey the authors were calibrated with Professor *Waerhaug* of Oslo who had first hand information on the use of the PI from its originator, and who himself had been calibrated with *Russell's* group (Bethesda, U.S.A.).

The patients' gingival condition was also scored according to the criteria of a Gingival Index (GI) System proposed by the present authors. This index is based on the clinical characteristics of the different grades of gingival inflammation.

CRITERIA FOR THE GINGIVAL INDEX SYSTEM

0 = Absence of inflammation.

1 = Mild inflammation — slight change in color and little change in texture.

2 = Moderate inflammation — moderate glazing, redness, oedema, and hypertrophy.
Bleeding on pressure.

3 = Severe inflammation — marked redness and hypertrophy.
Tendency to spontaneous bleeding.
Ulceration.

Gingiva at six teeth, representing the six segments of the jaws, are examined:

The maxillary right first molar
» » » lateral incisor
» » left first bicuspid
» mandibular » » molar
» » » lateral incisor
» » right first bicuspid.

Each gingival unit (buccal, lingual, mesial and distal) of the individual tooth is given a score from 0—3, called the *GI for the area*. The scores from the four areas of the tooth are added and

divided by four to give the *GI for the tooth.* The scores of the individual teeth (incisors, premolars and molars) may be grouped to designate the *GI for the group of teeth.* Finally, by adding the indices for the teeth and dividing by six the *GI for the patient* is obtained. The index for the patient is thus an average score for the areas examined.

Pocket depths of each area at the six teeth were measured with a graduated probe. On the *buccal* (labial) and *lingual* surfaces the measurements were taken at the middle of the surface, while the *mesial* and *distal* pockets were measured buccally (labially) to the contact points. Efforts were made to direct the pocket probe parallel to the long axes of the teeth. It was sometimes necessary to remove calculus in order to secure adequate measurements.

Before examination for PI and GI, the gingivae were dried either by a blast of air and/or cotton rolls. The examination of all patients was carried out by the same examiner. The observations were dictated to a dental nurse who recorded the scores on a chart. The time required for scoring the GI varied between 30 seconds and one minute. Measurement of pocket depths was considerably more time-consuming.

FINDINGS

Gingiva

One hundred per cent of the women examined during pregnancy and post partum showed signs of periodontal disease according to the criteria for the GI and PI.

The mean GI and PI in individuals are shown in Table II.

Table II.

Mean GI and PI for the 182 patients examined.

GI		PI	
pregnancy	post partum	pregnancy	post partum
1.03 ± 0.030*)	0.87 ± 0.048*)	1.36 ± 0.056*)	1.16 ± 0.056*)

*) Standard error of the mean

The index was significantly higher in the pregnant than in the post partum patient ($p<0.05$) both on the basis of the GI and PI scores.

The relationship between the means of the GI and PI and the progress of pregnancy and post partum period is shown in Table III and Fig. 1.

Table III.

Mean GI and PI of the patients in relation to months of pregnancy and post partum.

	GI	PI
Month of pregnancy		
2	0.89 ± 0.090	1.20 ± 0.165
3	1.04 „ 0.092	1.37 „ 0.213
4	0.91 „ 0.069	1.20 „ 0.153
5	0.97 „ 0.084	1.38 „ 0.210
6	1.05 „ 0.063	1.41 „ 0.125
7	1.06 „ 0.082	1.28 „ 0.125
8	1.26 „ 0.093	1.69 „ 0.185
9	0.91 „ 0.087	1.26 „ 0.125
Months post partum		
2	0.91 ± 0.118	1.23 ± 0.175
3	0.82 „ 0.112	1.08 „ 0.125
4	0.85 „ 0.091	1.14 „ 0.134
5 or more	0.85 „ 0.076	1.19 „ 0.101

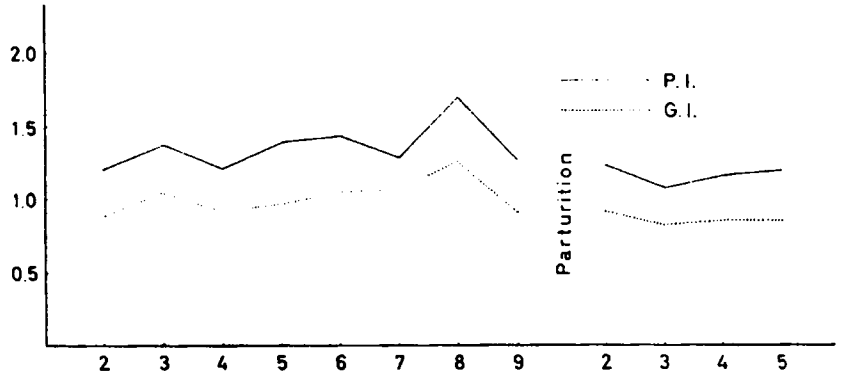

Fig. 1. The relationship between mean Gingival Index (GI) and mean Periodontal Index (PI) and months of pregnancy and post partum. (Indices at ordinate, months at abscissa).

It is apparent from Table III and Fig. 1 that the GI and PI increase from the 2nd month to the 8th month of pregnancy, with peaks at the 3rd and 8th months. From then on there is a fall in scores during the last month of pregnancy to a level approximating that of the 2nd month. The indices of the post partum group are comparable to those of the 2nd month of pregnancy.

The GI of the different groups of teeth (incisors, premolars and molars) are presented in Table IV and shown graphically in Fig. 2.

Table IV.

Mean GI of groups of teeth in relation to months of pregnancy and post partum.

	Incisors	Premolars	Molars
Month of pregnancy			
2	0.64	0.90	1.13
3	1.01	0.87	1.25
4	0.72	0.86	1.15
5	0.81	0.92	1.18
6	0.91	1.10	1.16
7	0.98	0.96	1.22
8	1.18	1.14	1.45
9	0.80	0.77	1.16
Months post partum			
2	0.79	0.83	1.12
3	0.68	0.79	0.98
4	0.64	0.74	1.19
5 or more	0.67	0.84	1.06

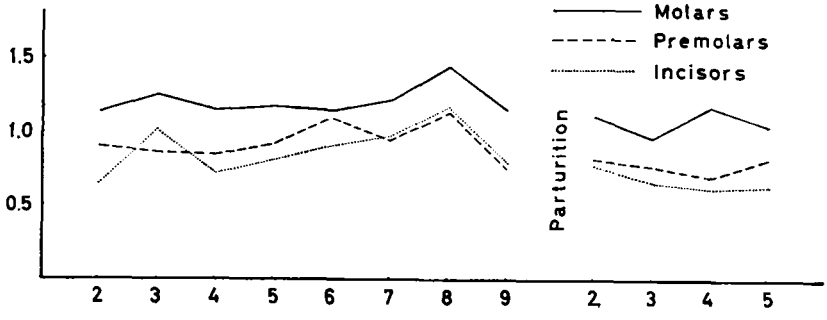

Fig. 2. Mean Gingival Index (GI) of incisors, premolars and molars in relation to months of pregnancy and post partum. (GI at ordinate, months at abscissa).

The molars gave the highest GI both during pregnancy and after parturition. The premolars gave scores which during the first and second trimester exceeded those of the incisors. The greatest variation was found at the incisors. In this group, the GI increased steadily in severity throughout pregnancy. All groups showed a sudden fall in the GI during the last month of pregnancy. The post partum GI of all groups of teeth levelled off at the level of the GI of the 2nd month of pregnancy.

The GI of the different areas of the teeth according to months of pregnancy and post partum are shown in Table V and Fig. 3. No marked difference seemed to exist between the mesial and distal areas, therefore a mean was computed for the interproximal areas.

Table V.

Mean GI of different areas of teeth in relation to months of pregnancy and post partum.

	Buccal	Lingual	Interproximal
Month of pregnancy			
2	0.31	0.78	1.24
3	0.55	0.81	1.39
4	0.41	0.63	1.29
5	0.55	0.78	1.27
6	0.54	0.89	1.41
7	0.50	0.84	1.44
8	0.77	1.00	1.62
9	0.45	0.74	1.23
Months post partum			
2	0.41	0.83	1.20
3	0.42	0.73	1.05
4	0.34	0.77	1.13
5 or more	0.37	0.67	1.18

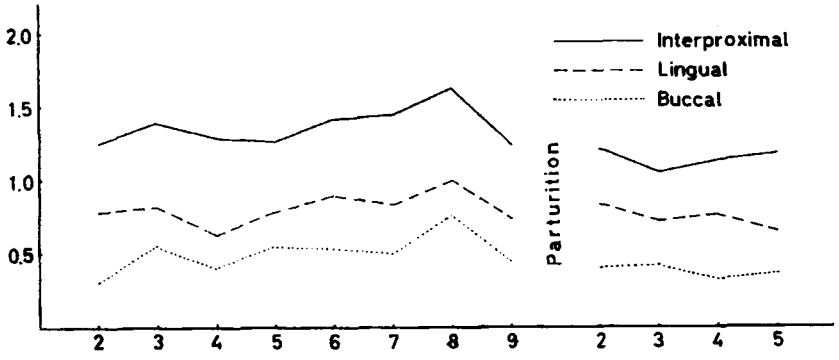

Fig. 3. Mean Gingival Index (GI) of interproximal, lingual and buccal areas of teeth in relation to months of pregnancy and post partum. (GI at ordinate, months at abscissa).

Table V and Fig. 3 show that the scores were definitely higher for the interproximal areas than for the lingual aspects of the teeth. The lingual scores again were higher than those for the buccal gingiva. Throughout pregnancy all areas showed increas-

ing scores which reached their peak during the eighth month of pregnancy.

By computing the percentage of the GI scores related to the interproximal areas, it appears that these account for nearly 70 per cent of the total score. The buccal and lingual areas account for 10 per cent and 20 per cent, respectively.

Pocket depth

The mean depths (mm) of gingival pockets in patients during pregnancy and post partum are shown in Table VI.

Table VI.

Mean pocket depths (mm) for the 182 patients examined.

Pregnancy	Post partum
3.2 ± 0.05	2.6 ± 0.03

The depths of the pockets are significantly higher during pregnancy than post partum ($p < 0.05$).

The mean pocket depths of patients according to months of pregnancy and post partum are presented in Table VII and in Fig. 4.

Table VII.

Mean pocket depths of the patients in relation to months of pregnancy and post partum.

	Mean pocket depths
Month of pregnancy	
2	3.1 mm ± 0.10
3	3.2 „ „ 0.17
4	3.1 „ „ 0.02
5	3.2 „ „ 0.02
6	3.2 „ „ 0.10
7	3.1 „ „ 0.12
8	3.3 „ „ 0.15
9	3.2 „ „ 0.08
Months post partum	
2	2.6 „ „ 0.06
3	2.6 „ „ 0.15
4	2.6 „ „ 0.05
5 or more	2.7 „ „ 0.05

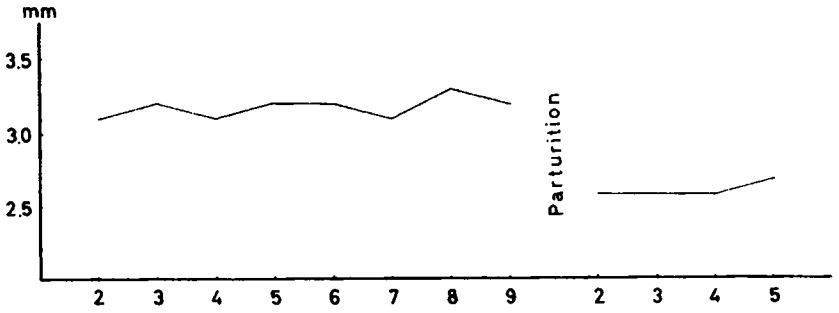

Fig. 4. The relationship between mean pocket depths in millimeters (ordinate) and months of pregnancy and post partum (abscissa).

The gingival pocket is deeper during pregnancy (slightly over 3 mm) than after parturition (about 2.5 mm). The pocket depth does not seem to vary significantly during the gestation period.

The pocket depths around different groups of teeth (incisors, premolars and molars) are shown in Table VIII and Fig. 5.

Table VIII.

Mean pocket depths of groups of teeth according to months of pregnancy and post partum.

	Incisors	Premolars	Molars
Month of pregnancy			
2	2.6 mm	3.1 mm	3.6 mm
3	2.9 „	3.1 „	3.6 „
4	2.7 „	3.0 „	3.4 „
5	2.8 „	3.1 „	3.8 „
6	2.9 „	3.1 „	3.7 „
7	2.9 „	3.0 „	3.5 „
8	3.1 „	3.1 „	3.7 „
9	3.0 „	3.0 „	3.4 „
Months post partum			
2	2.4 „	2.5 „	2.9 „
3	2.3 „	2.5 „	2.9 „
4	2.3 „	2.5 „	2.9 „
5 or more	2.4 „	2.6 „	3.0 „

It is apparent from Table VIII and Fig. 5 that the pockets associated with the molars are deeper than the pockets associated with the other two groups of teeth. The average pocket of the premolar group is deeper than that of the incisors. Only the pockets at the incisors seem to demonstrate a definite increase

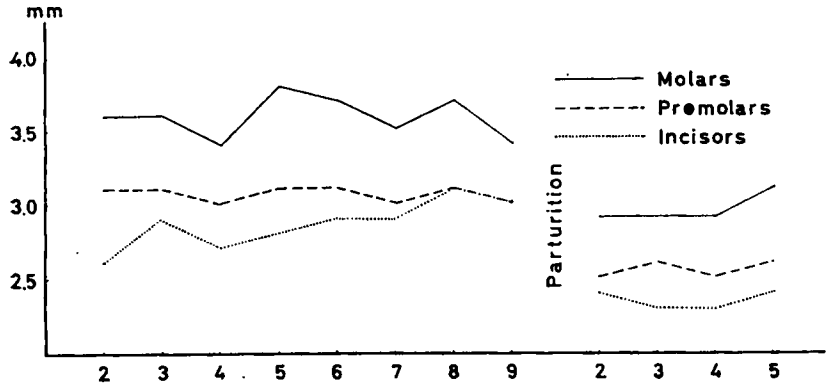

Fig. 5. Mean pocket depths (mm) of incisors, premolars and molars (ordinate) in relation to months of pregnancy and post partum (abscissa).

in depth from the 2nd month of pregnancy (2.6 mm) to the 8th month (3.1 mm).

The pocket depths of the different areas of the teeth according to months of pregnancy and post partum are presented in Table IX and Fig. 6.

Table IX.

Mean pocket depths of the different areas of teeth in relation to months of pregnancy and post partum.

	Buccal	Lingual	Interproximal
Month of pregnancy			
2	2.1 mm	2.6 mm	3.9 mm
3	2.2 „	2.7 „	3.9 „
4	2.1 „	2.3 „	3.9 „
5	2.3 „	2.5 „	4.0 „
6	2.2 „	2.6 „	4.1 „
7	2.1 „	2.4 „	4.0 „
8	2.3 „	2.6 „	4.2 „
9	2.3 „	2.4 „	4.0 „
Months post partum			
2	1.7 „	2.0 „	3.3 „
3	1.7 „	1.9 „	3.3 „
4	1.7 „	1.9 „	3.3 „
5 or more	1.7 „	2.0 „	3.5 „

Table IX and Fig. 6 show that the interproximal pockets were, on an average, 1—1.5 mm deeper than the lingual pockets, which again were approximately one half mm deeper than those on the buccal side.

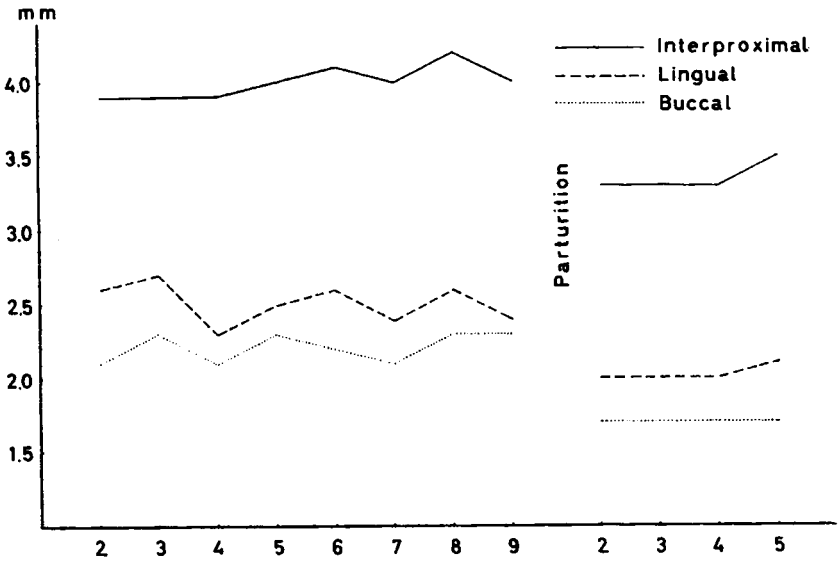

Fig. 6. Mean pocket depths (mm) of interproximal, lingual and buccal areas of the teeth (ordinate) in relation to months of pregnancy and post partum (abscissa).

Pregnancy tumor

In the entire sample only one case of pregnancy tumor was found. It was located lingually between the upper right central and lateral incisors and was noted in a 26 year old patient during the 3rd month of pregnancy. The tumor was pedunculated and flattened with a diameter of 15 mm. It was traumatized by the mandibular front teeth and then caused severe bleeding. At the time of the examination its surface was covered by necrotic debris. The patient's history related a similar lesion at the same site during the preceding pregnancy. This had not been treated, and to the best of the patient's recollection, it had worried her only a short time after parturition.

Character of the periodontal changes

By means of the Periodontal Index (PI) System the periodontal lesions may be grouped according to the extension of the disease. All women examined had periodontal disease as deter-

mined by the Periodontal Index (Tables II and III) and were grouped as follows (*Jamison* 1961):

Gingivitis = no tooth scores greater than 2.0

Destructive periodontal disease = one or more tooth scores greater than 2.0.

Table X.

Distribution of gingivitis and destructive periodontal disease in pregnancy and post partum as determined by the PI.

Group	Gingivitis	Destructive Periodontal Disease	No.
Pregnancy	84 (69.4)*)	37 (30.6)	121
Post partum	41 (67.2)	20 (32.8)	61

*) The parentheses signify rates per hundred.

According to Table X about 30 per cent of the women in the pregnancy group and 32 per cent in the post partum group suffered from destructive periodontal disease.

By subgrouping the data obtained on the basis of the Periodontal Index and the Gingival Index, information about distribution (PI) and severity (GI) of the gingival changes may be obtained (Table XI).

The *PI scores* were grouped as follows (*Jamison* 1961):

1. Average scores 0.1—1.0 scattered gingivitis
2. » » 1.1—1.5 localized »
3. » » 1.6—2.0 generalized »

The *GI scores* were grouped as follows:

1. Average scores 0.1—1.0 mild inflammation
2. » » 1.1—2.0 moderate inflammation
3. » » 2.1—3.0 severe inflammation.

Table XI.

The distribution and severity of gingivitis in pregnancy and post partum as determined by PI and GI.

Group	Distribution (PI)			Severity (GI)		
	Scattered	Localized	Generalized	Mild	Moderate	Severe
Pregnancy	32 (26.4)*)	42 (34.7)	10 (8.3)	67 (55.4)	51 (42.1)	3 (2.5)
Post partum	20 (32.8)	18 (29.5)	3 (4.9)	42 (68.9)	18 (29.5)	1 (1.6)

*) The parentheses signify rates per hundred.

It appears from Table XI that scattered gingivitis is more frequent in the post partum group, while localized and generalized gingivitis are more commonly found in the pregnancy group. As to severity, expressed by the GI, it is seen that a shift to less severe forms of gingivitis is found in the post partum group as compared to the group of pregnant women.

Correlation of the data

According to the criteria for the PI and GI scoring systems it should be noted that the two indices are measuring the same parameters only to a limited extent. The main difference is that the Gingival Index indicates gingivitis only, whereas the Periodontal Index in addition scores destructive periodontal disease. On the other hand both indices revert to 0 if signs of inflammation as defined by the criteria for the two indices, are lacking.

A coefficient of correlation was calculated separately for the two indices from the formula $r = \frac{\frac{\Sigma\, x\, y}{N} - \overline{X}_x\, \overline{Y}_y}{\sigma_x\, \sigma_y}$ (*Garn* 1951). For the pregnant group it was 0.885, and for the post partum group 0.661. The findings are partly based on the assumption that the six selected teeth are representative of all of the teeth. Although the correlation of the PI (all teeth included) and GI (six specified teeth) are relatively high, the results of this study does not give any information about the correlation of the GI for *all* of the teeth and the GI for the *six* specified teeth. The correlation of these latter two can be estimated only by computing their coefficient of correlation in a sufficiently comprehensive study.

DISCUSSION

The present investigation has shown a significant difference between the gingival condition during pregnancy and after delivery. This study has also confirmed earlier experimental results and the common clinical observations in as much as the gingival tissues seem to be influenced during pregnancy.

All pregnant women examined showed gingival changes which

at the clinical level are adequately described as inflammation of the gingivae (gingivitis).

The effect of pregnancy on gingival tissues may already be recognized in the 2nd month of gestation. Although a decrease in severity was observed from the 3rd to the 4th month, the gingival inflammation shows a general increase to a maximum in the 8th month of pregnancy. During the last month a sudden and definite decrease occurs. During the last month of pregnancy the state of the gingivae corresponds to that of the 2nd month of pregnancy. The culmination of the increase in severity of inflammation before parturition is in keeping with the observations made by *Hilming* (1950).

The increase in the gingival inflammation takes place around molars, premolars and incisors. Although the gingiva of the molar teeth showed the highest scores throughout pregnancy, the greatest relative increase was observed around the anterior teeth. The interproximal areas are by far the most frequent sites of gingival disease both during pregnancy and after parturition. This is in accordance with what has been found in other population groups (*Lövdal et al.* 1958).

The present study has also furnished some evidence that the depth of the average gingival pocket is increased during pregnancy. The gingiva of all teeth studied showed this tendency. Here again the gingiva around the molars exhibited the deepest pockets, while that of the anterior teeth demonstrated the greatest relative increase. In general, pockets at the interproximal aspects on the teeth were 1.5—2.0 mm deeper than those at the lingual and buccal surfaces. The measurements do not directly indicate whether the increase was due to apical movement of the bottom of the pocket or to gingival enlargement. The fact that the pocket depth decreased significantly after parturition tends to indicate, however, that the deepening might be caused by swelling of the free gingiva in connection with the pathological condition. This is also to some degree confirmed by the fact that there was no significant difference between the pregnancy and post partum groups concerning the occurrence of destructive periodontal disease as determined by Russell's Periodontal Index (PI). All in all, this study gives no support to the assumption that

the wider distribution and increased severity of gingival inflammation in the course of pregnancy will cause lasting injuries to the periodontium.

Since the gingival changes during pregnancy are inflammatory in nature, scoring systems that are graded on the basis of inflammatory changes may be used to study the gingivae during pregnancy. The use of an index which depends on degrees of severity of inflammation, and which is applied to each gingival area of the different groups of teeth, appears to provide sufficiently detailed information on the location and quality of the gingival changes. The lack of registration of pregnancy tumors is not a serious objection to the use of the indices, as these tumors are rare findings. In the present material 1 out of 121 pregnant women presented an epulis. This is in accordance with other reported observations (i.e. below 1 per cent) (*Maier & Orban* 1950, *Ziskin & Nesse* 1946, *Hasson* 1960, *Tiililä* 1962).

SUMMARY AND CONCLUSIONS

One hundred and twenty-one pregnant and sixty-one post partum women were examined for the occurrence and severity of periodontal disease. Assessments of the periodontal condition were made by means of Russell's Periodontal Index (PI) and a registration system proposed by the present authors, the Gingival Index (GI).

1. One hundred per cent of the pregnant women showed signs of gingival inflammation.
2. The prevalence and severity of gingival disease in pregnant women was significantly higher than in women post partum.
3. The increase was noticeable from the 2nd month of gestation and reached a maximum in the 8th month. During the last month of gestation a definite decrease occurred.
4. After parturition the state of the gingivae was similar to that at the 2nd month of pregnancy.
5. Gingival pocket depths were significantly increased during pregnancy. Their decrease after parturition indicates that deepening was probably caused by enlargement of the gingiva.

6. The increase in occurrence and severity of gingival inflammation during pregnancy did not seem to cause lasting injuries to the periodontium.
7. Registration systems that are graded on the basis of inflammatory changes may be used for the assessment of gingival conditions during pregnancy.

Acknowledgement

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RÉSUMÉ ET CONCLUSIONS

AFFECTIONS PARODONTALES PENDANT LA GROSSESSE

I. FRÉQUENCE ET GRAVITÉ

Cent vingt et une femmes enceintes et soixante et une accouchées ont été examinées en ce qui concerne la présence et la gravité des affections parodontales. L'évaluation des lésions parodontales a été faite au moyen de l'indice parodontal de Russell (PI), et au moyen d'un système d'enregistrement proposé par les auteurs de la présente étude, l'indice gingival (GI).

1. 100 p. 100 des femmes enceintes présentaient des signes d'inflammation gingivale.
2. La fréquence des affections parodontales chez les femmes enceintes étaient significativement plus élevée que la fréquence observée chez les accouchées.
3. L'élévation de fréquence était perceptible à partir du deuxiéme mois de la grossesse et atteignait son maximum au huitiéme mois. Pendant le dernier mois de la grossesse, un nette diminution pouvait être observée.
4. Après l'accouchement, l'état de la gencive était analogue à l'état de la gencive au deuxième mois de la grossesse.
5. La profondeur des culs-de-sac gingivo-dentaires augmentait d'une manière significative au cours de la grossesse. Sa diminution après l'accouchement indique que l'augmentation de la profondeur était probablement due à une augmentation de volume de la gencive.

6. L'augmentation de la fréquence et de la gravité de l'inflammation gingivale pendant la grossesse ne semblait pas causer de lésions permanentes du parodonte.
7. Les systèmes d'enregistrement dont les degrés sont établis en se basant sur les altérations inflammatoires peuvent être utilisés pour l'évaluation des lésions gingivales pendant la grossesse.

ZUSAMMENFASSUNG UND SCHLUSSFOLGERUNGEN

PARODONTALE ERKRANKUNGEN UND SCHWANGERSCHAFT

I. HÄUFIGKEIT UND SCHWERE

121 schwangere und 61 post partum Frauen wurden auf das Vorkommen und die Schwere parodontaler Erkrankungen untersucht. Beurteilung der parodontalen Zustände wurden vermittels des Russell Parodontalindexes (PI) und eines von den Verfassern in Vorschlag gebrachten Registrierungssystemes, des Zahnfleischindexes (GI) vorgenommen.

1. Hundert Prozent der schwangeren Frauen erwiesen Zeichen einer gingivalen Inflammation.
2. Gingivalerkrankungen waren bei schwangeren Frauen eindeutig häufiger und schwererer Art als bei Frauen post partum.
3. Das Zunehmen der Erkrankungen war sichtbar vom zweiten Schwangerschaftsmonat an und erreichte ein Maximum im achten Monat. Während des letzten Schwangerschaftsmonats erschien ein deutliches Abnehmen.
4. Nach der Geburt war der Zustand der gingivalen Gewebe wie in dem zweiten Schwangerschaftsmonat.
5. Die Taschentiefen wurden während der Schwangerschaft signifikant grösser. Das Abnehmen der Taschentiefen nach der Geburt zeigt, dass die Vergrösserung der Taschentiefen wahrscheinlich durch Oedem der gingivalen Gewebe verursacht war.
6. Das Zunehmen in Vorkommen und Schwere der gingivalen Inflammation während der Schwangerschaft schien nicht nachhaltige Schäden an dem Parodontium zu verursachen.

7. Registrierungssysteme, die auf Grund inflammatorischer Veränderungen graduiert sind, können für die Beurteilung des gingivalen Zustandes während der Schwangerschaft benutzt werden.

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Addresses:

Harald Løe
Århus Tandlaegehøjskole
Vennelyst Boulevard
Århus C, Denmark.

John Silness
Odontologisk Institutt
Universitet
Bergen, Norway.