

## The Importance of Oral Health during Pregnancy for Preventing Gingivitis: A Case Report

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### Abstract

Pregnancy is a transient physiological condition which brings about different changes in all parts of woman's body.

These complex physiological changes can affect woman oral health and compromise that of the unborn child: the maintenance of optimal conditions of the oral cavity of the woman is crucial for the best outcome of pregnancy and for the promotion of the oral health of the unborn child.

**Keywords:** Oral Health; Oral Health Education; Pregnancy

### Introduction

In recent decades, many studies have shown the association between maternal oral infections and adverse pregnancy outcomes.

Existing scientific evidence emphasizes the association between the presence and severity of gum infections and premature birth, fetal growth retardation, spontaneous abortion, preeclampsia. The role of these infections as a possible risk factor or co-cause of adverse pregnancy outcomes has not, however, always been confirmed while the possibility of vertical transmission, from mother to child, of bacteria that cause tooth decay has been demonstrated. Gingival bleeding often causes the pregnant woman to decrease the brushing of teeth resulting in greater accumulation of bacterial plaque and further impairment of the general state [1].

Dietary and oral hygiene changes, morning gravidic hyperemesis, esophageal reflux disease can cause tooth tissue demineralization with enamel erosion and increase the risk of tooth decay if appropriate preventive interventions are not planned [2].

### Case Report

A 33-year-old woman, 3-month pregnancy, gravidic gingivitis, no systemic pathologies.

#### What she referred

Pain in the gums, gums that bleed when brushing, swollen, tense gums, easily traumatizable, high estrogen levels, hyper emesis gravidarum [3-5].

During the objective examination we find what the patient said the alteration of the local immune response with increased susceptibility to gingival inflammation and depression of the chemotactic and phagocytic response of neutrophil granulocytes and other cellular-mediated immune functions (Figure 1).

The increased permeability of the gingival blood vessels promotes redness, increased volume of the gums, predisposing them to greater bleeding (Figure 2).

#### Professional treatment

She received perinatale care with a periodontal treatment.

Periodontal therapy consisted of plaque control with a tri-tone-plaque-detector, removing with airflow and scaling (Figure 3(a, b)).

Maintenance therapy was provided every to 10 days for 1month, and consisted of oral hygiene instruction and supragingival plaque removal by instrumentation, as needed (Figure 4a, 4b).

After the first oral hygiene session we obtained a partial healing of the tissues. The index of plaque and bleeding are reduced.

The teaching and reinforcement of the information of personal oral hygiene techniques have contributed to obtaining excellent results already at the first follow-up after 10 days.

#### Follow-up 14 days

We have made dietary changes that have led to the disappearance of gravidic hyperemesis (Figure 5(a-c)). Reduction of: plaque and bleeding index, gum edema, gums pain [6].

Professional perinatal treatment significantly reduced glum bleeding and inflammation.



**Figure 1:** The alteration of the local immune response with increased susceptibility to gingival inflammation and depression of the chemotactic and phagocytic response of neutrophil granulocytes and other cellular-mediated immune functions.

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**Figure 2:** The increased permeability of the gingival blood vessels promotes redness, increased volume of the gums, predisposing them to greater bleeding



**Figure 3(a):** Periodontal therapy: plaque control with a tri-tone-plaque-detector.



**Figure 3(b):** Periodontal therapy: plaque control with a tri-tone-plaque-detector.



**Figure 4(a):** Follow up after 10 days: partial healing of the tissues, the index of plaque and bleeding are reduced.



**Figure 4(b):** Follow up after 10 days: partial healing of the tissues, the index of plaque and bleeding are reduced.



**Figure 5(a):** Follow up before 14 days: Professional perinatal treatment significantly reduced gum bleeding and inflammation.



**Figure 5(b):** Follow up before 14 days: Professional perinatal treatment significantly reduced gum bleeding and inflammation.



**Figure 5(c):** Follow up before 14 days: Professional perinatal treatment significantly reduced gum bleeding and inflammation.

## Conclusion

Dental procedures during pregnancy are safe and necessary: every pregnant woman should be assessed for dental hygiene habits and oral problems. The maintenance of optimal conditions of the oral cavity of the woman is crucial for the best outcome of pregnancy. Good oral hygiene, brush twice a day and floss once a day, good nutrition, regular visits to the dental hygienist can prevent gingivitis in early stages.

## Conflict of Interest

We declare that we have no conflict of interest.

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