

# A study of the prognosis of vitiligo during pregnancy

Estudo de prognóstico do vitiligo na gestação

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## ABSTRACT

**Introduction:** Vitiligo is a pigmentation disorder with great potential for cosmetic disfigurement and emotional impact on patients – especially during pregnancy. The prognosis of autoimmune diseases during pregnancy is variable, and no studies evaluating the prognosis of vitiligo during pregnancy was found in the literature review carried out by the authors.

**Objective:** To evaluate the behavior of vitiligo during pregnancy and the postpartum period.

**Methods:** A descriptive transversal investigation was carried out with a population of 86 women diagnosed with vitiligo, who answered a standardized questionnaire.

**Results:** Among the women studied, only 28 patients (43.07%) had a diagnosis of vitiligo coinciding with pregnancy, totaling 57 pregnancies (33.92%) with vitiligo. Regarding the behavior of vitiligo during pregnancy, there was a worsening of vitiligo in 10 pregnancies (17.54%), stability in 38 (66.66%), and improvement in seven (12.28%). As for the evolution of vitiligo within 6 months postpartum, 16 patients (28.07%) had a worsening of the disease, 36 (63.15%) remained stable, and three (5.26%) improved. In two pregnancies (3.50%) the patient did not provide information about the behavior of the disease.

**Conclusion:** In most patients, vitiligo remained stable during pregnancy, as well as in the 6 months postpartum.

**Keywords:** vitiligo; prognosis; pregnancy.

## RESUMO

**Introdução:** O vitiligo é desordem pigmentar com grande potencial de desfiguração cosmética e impacto emocional nos pacientes, especialmente no período gestacional. O prognóstico das doenças autoimunes na gestação é variável, não tendo sido encontrados, em nossa revisão, trabalhos avaliando o prognóstico do vitiligo no período gestacional.

**Objetivo:** Avaliar o comportamento do vitiligo na gestação e período pós-parto.

**Métodos:** Foi realizado estudo descritivo tipo inquérito transversal, em que a população, composta por 86 mulheres com diagnóstico de vitiligo, respondeu a um questionário padronizado.

**Resultados:** Dentre as mulheres incluídas, apenas 28 pacientes (43,07%) apresentavam o diagnóstico de vitiligo na vigência de alguma gestação, totalizando 57 gestações (33,92%) com vitiligo. Em relação ao comportamento do vitiligo durante a gestação, houve piora do vitiligo em dez gestações (17,54%), estabilidade em 38 (66,66%) e melhora em sete (12,28%). Quanto à evolução do vitiligo no período de seis meses após o parto, 16 (28,07%) obtiveram piora da doença, 36 (63,15%) permaneceram estáveis, e três (5,26%) melhoraram. Em duas gestações (3,50%) a paciente não soube informar o comportamento da doença.

**Conclusão:** A maioria das pacientes permaneceu com o vitiligo estável durante a gravidez, assim como no período de seis meses após o parto.

**Palavras-chave:** vitiligo; prognóstico; gravidez.

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## INTRODUCTION

Vitiligo is an acquired pigmentation disorder characterized by the presence of macules and achromic spots. It has great potential for cosmetic disfigurement and emotional impact on patients.<sup>1,2</sup> It affects about 1% of the population, with half of the patients developing the disease before the age of 20, and no significant difference in incidence by gender.<sup>3</sup> Its precise pathogenesis is still unknown, with the main and most accepted theory being that of the autoimmune etiology.<sup>3</sup> The prognosis of autoimmune diseases during pregnancy is variable and the worsening of certain diseases, such as systemic lupus erythematosus, or the remission of others, such as rheumatoid arthritis, may take place.<sup>4</sup>

No studies evaluating the prognosis of vitiligo during pregnancy were found in the present article's literature review. In the face of the above circumstances, the authors conducted a study aimed at evaluating the behavior of vitiligo during and after pregnancy.

## METHODS

A descriptive, cross-sectional study was carried out from May 2011 to December 2011, at the Vitiligo Outpatient Clinic of the Hospital Santa Casa de Curitiba (PR) - Brazil. The study's population was composed of women diagnosed with vitiligo (independent of clinical type), totaling 86 patients who answered a standardized questionnaire during consultations or by telephone.

The variables studied were: current age, age at diagnosis, number of pregnancies, age during respective pregnancies and behavior of vitiligo (worsening, stability, or improvement) during and after pregnancy. Data related to the patient's average age and the average age at the onset of the disease were analyzed with SPSS v13.0 software. The study protocol and the Term of Free and Informed Consent were approved by the Research Ethics Committee.

## RESULTS

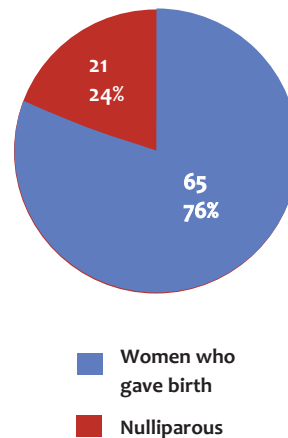
Altogether, 86 women between the ages of 9 and 79 years (mean =  $44.87 \pm 17.42$  years old) were included. The mean age at disease onset was  $30.6 \pm 19.10$  years old.

Of the included women, 65 had given birth (75.58%), totaling 168 pregnancies. Of those, only 28 patients (43.07%) had a diagnosis of vitiligo while pregnant, totaling 57 pregnancies (33.92%) with vitiligo (Graphs 1 and 2).

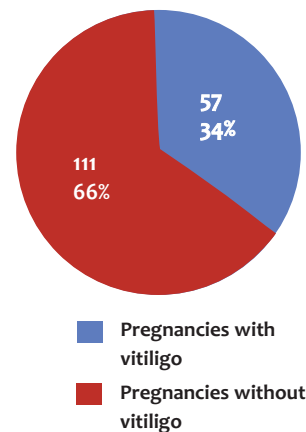
Regarding the behavior of the vitiligo during gestation, there was a worsening of the vitiligo in ten pregnancies (17.54%), stability in 38 (66.66%) and improvement in seven (12.28%). In two pregnancies (3.50%), the patient was unable to describe the behavior of the disease (Graphs 3).

Regarding the evolution of the vitiligo in the six months after delivery, 16 patients (28.07%) had a worsening of the disease, 36 (63.15%) remained stable, and three (5.26%) improved. This information could not be obtained in two pregnancies (3.5%) (Graphs 3).

Of the three multiparous patients who had a worsening of the condition in the first pregnancy with vitiligo, only one



GRAPH 1: Study population stratified according to the pregnancy history



GRAPH 2: Representation of the study's pregnancies

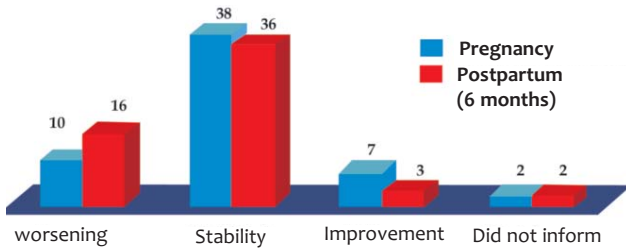
(33.33%) showed identical behavior of the disease in other pregnancies. In the multiparous patients who were stable (14 patients), 12 (81.71%) were stable in other pregnancies. Finally, all three patients (100%) whose vitiligo improved during their first pregnancy with the condition also saw an improvement during subsequent pregnancies.

Thirty-seven patients who gave birth had no diagnosis of vitiligo during pregnancy. Of those, 31 (83.78%) have reported their age at first pregnancy, with the mean time for the onset of vitiligo after the first pregnancy in those patients being 23.73 years.

## DISCUSSION

There is known to be a strong correlation between physiological and pathological autoimmune mechanisms and pregnancy.<sup>4,5</sup> Nonetheless, in the review of the literature carried out on MedLine, the authors had not found studies on the behavior of vitiligo during pregnancy up until the time the present article went to press, making it the first in this regard.

As already noted, it could be observed that the behavior of vitiligo remained stable in the majority of pregnancies (66.66%), with worsening in 17.54% of the patients, and improvement in a



GRAPH 3: Behavior of vitiligo during pregnancy and postpartum period

minority of cases (12.28%). Analyzing the disease’s behavior in the six-month period after delivery, a similar distribution of those variables (63.15%, 28.07% and 5.26%, respectively) was observed. Up until then, the data found in the literature regarding the prognosis of vitiligo during pregnancy, was merely speculative, having been obtained from subjective experiences reported by patients—most of them describing pregnancy as a worsening factor.<sup>6</sup> Pregnancy is also subjectively cited in the literature as a

trigger factor for vitiligo, 6 also contradicting our results, which showed an average time lapse of 23.73 years between the first gestation and the onset of vitiligo.

The average age at diagnosis of vitiligo was 30.6-years-old—higher than the average found in the literature.<sup>3</sup> This is probably due to the fact that the population in our clinic consists predominantly of adult patients.

In multiparous patients with vitiligo, it was observed that the behavior of the disease generally remained the same in subsequent pregnancies—except in patients whose vitiligo worsened during their earlier pregnancies, of which only one (33.33%) maintained the worsening pattern in other pregnancies.

**CONCLUSION**

According to the results obtained, most patients experienced stable vitiligo during pregnancy, as well as within the six-month period after delivery. Since vitiligo is a dermatosis that has great psychological, emotional, and social repercussions for affected patients—especially during the reproductive phase of a woman’s life—these results may serve as the basis for guidance regarding the prognosis of the disease to pregnant women. Further evidence must be sought in the future by prospective studies. ●

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