

## SHORT COMMUNICATION

## Acne in Pregnant Women: A French Survey

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Acne is thought of mainly as a skin disorder of teenagers. However, the prevalence of adult acne in some studies is 20–40% (1, 2). Thus, acne also affects pregnant women. However, unlike other dermatoses, there are very few data available on acne in pregnancy, its spontaneous course and its therapeutic management by dermatologists in daily practice. The aim of this study was to carry out a survey to answer these questions.

## MATERIALS AND METHODS

This French survey was based on a questionnaire and was carried out over a period of 18 months. The questionnaire was composed of questions about the history of acne, evaluation of severity of acne on both face and back using ECLA grading (3), prescription at the end of the consultation. Dermatologist national representativeness was ensured by a random draw with geographical stratification. Prospectively, each dermatologist had to include the first 5 pregnant patients with acne who consulted them, whatever the reason for the consultation. The inclusion criteria were: age  $\geq 18$  years, being pregnant, having acne, and agreeing to participate in the survey. The survey was conducted in accordance with the Public Health Code and Recommendations and Good Practices in Epidemiology. Acne severity and clinical type were determined using the Acne Lesion Clinical Assessment Scale (ECLA grid) (3). Seventy-nine dermatologists participated in the study.

## RESULTS

A total of 378 pregnant women with acne were included. The median number of pregnant women seen per year and dermatologist in consultation was 19 and the median proportion of these women having acne was 42.3% (range 10–100%). The mean age of the population at the time of consultation was  $29.8 \pm 4.8$  years,

10.9% of them were between 18 and 25 years, and 89.1% were older. The mean  $\pm$  SD age of acne onset was  $15.8 \pm 4.4$  years. Among these patients, 86.6% had had acne previously; relapse of cured acne in 35.1% of cases and continuous acne since adolescence in 51.5% of cases. Among the latter women, 59.7% reported acne worsening during their pregnancy, 9.1% an improvement and 31.2% no change. Among the 137 multiparous patients, 65.9% reported acne flares during previous pregnancies. For the last 3 years before pregnancy, contraception was used in 75.1% of cases.

Concerning the characteristics of acne, 35.2% of women had only facial lesions, more frequently on the mandibular regions (69.1%), then on the cheeks (15.7%) and forehead (14.4%). The proportion of women with lesions on the trunk was 87.2%. Patients with previous acne had significantly more lesions on the neck and trunk ( $p < 0.001$  and  $p = 0.004$ , respectively). Inflammatory lesions predominated, with 37% of patients having 1–5 facial nodules. Women over 25 years of age had fewer retentional and superficial inflammatory lesions on the neck and trunk than women under 25 years of age ( $p = 0.030$ ). Retentional lesions were more common in patients with previous acne ( $p = 0.004$ ), in particular in relapsing acne ( $p = 0.008$ ). Inflammatory nodules and cysts were more numerous in patients with continuous acne ( $p = 0.013$ ) (Fig. 1). Superficial inflammatory lesions were less numerous in pregnant women over 25 years of age ( $p = 0.043$ ). This age-related difference was not observed for retentional lesions.

The survey showed that dermatologists more frequently prescribed topical therapy alone (53.2%) or associated with systemic therapy (42.9%) than systemic therapy alone (3.9%) to pregnant women with acne.

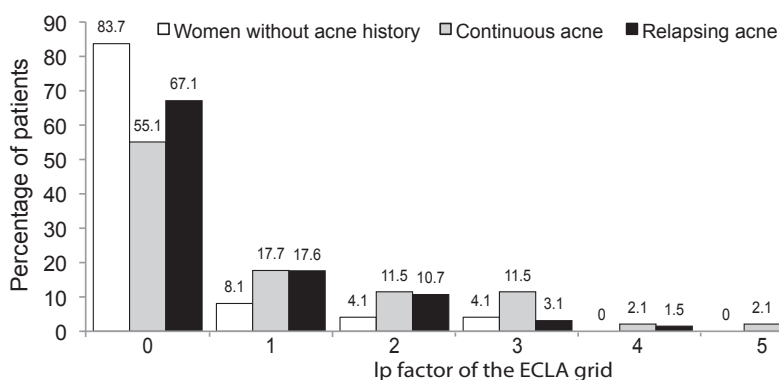


Fig. 1. Retentional and superficial inflammatory lesion severity on the face estimated with the Acne Lesion Clinical Assessment Scale (ECLA) grading ( $n = 378$ ).

The main prescribed therapies were topical antibiotic (53.5%) and oral zinc gluconate 30 mg/day (89.9%). At the end of the consultation, only 5.6% of pregnant women had received no prescription.

## DISCUSSION

This survey shows that the mean age of pregnant women consulting a dermatologist is high (29.8 years), with 89.1% of women being  $\geq 25$  years. Acne was present in 42.3% of the pregnant women consulting a dermatologist. In a previous study of cutaneous lesions in a cohort of 607 pregnant women, Kumari et al. (4) mentioned only 15 cases of pregnant women affected by acne. No other study in the literature discusses acne and pregnancy. This survey also demonstrates that, comparing the two clinical forms of adult acne identified (inflammatory and retentional forms), acne during pregnancy is more often of the inflammatory subtype and is localized mainly on the lower part of the face, with frequent nodules (5–7). In pregnant women, with a previous history of acne, the condition is more common and mostly accompanied by worsening on the face and extension to the trunk (87.2% vs. only 41% in adult acne). The age influences the number of superficial inflammatory lesions, which was lower in pregnant women aged 25 years or older, unlike the number of retentional lesions. There was no link between the course of acne and the previous use of contraceptives, nor with the primiparous or multiparous nature. Usual prescriptions given by the dermatologists are in accordance with the good clinical practice: contraindicating topical retinoids, tetracyclins, anti-androgens and isotretinoin in pregnant women. Thus, zinc gluconate and macrolides are prescribed more frequently during pregnancy. It is also important to note that a topical antibiotic alone is prescribed in more than 50% of pregnant women, raising the question of the risk of increasing bacterial resistance in these women with acne, and thus the interest in combining it with zinc salts, which have been shown to decrease the risk of bacterial resistance (7, 8).

In conclusion, this study shows that, in pregnant women, acne occurs mainly in patients with a previous history of acne, and is worsened by the pregnancy, with frequent extension of the lesions to the back.

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