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CASE AND RESEARCH LETTERS

Progressive and Confluent Macular Hypomelanosis

Hipomelanosis macular progresiva y confluente

To the Editor:

Progressive and confluent macular hypomelanosis, described by Guillet et al[1] in 1980, is a common and underreported disease characterized by asymptomatic, confluent, nonscaly, hypopigmented macules, with no previous inflammation, located on the abdomen and mainly affecting young women.[2-5] The etiology is unknown, though it has been associated with the presence of *Propionibacterium acnes* in the pilosebaceous duct.[3-5]

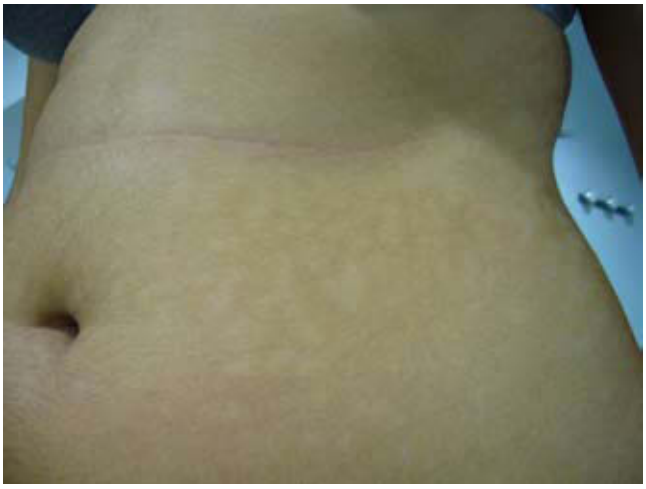

Figure 1 Hypopigmented macules on the trunk with a tendency to coalesce.

In 2007 we performed a study including 19 patients recruited between 1994 and 2007. They were diagnosed clinically with progressive and confluent macular hypomelanosis (Figure 1). All patients were young women (age range, 16–33 years) and most were Spanish with skin phototype III, except for 3 from South America with phototype IV-V (Table 1). Eight patients were excluded after the spontaneous disappearance of the lesions and 1 patient chose not to participate in the study. Samples of healthy and hypomelanotic skin were taken from 10 patients by means of a 3-mm punch biopsy for microbiological culture (Gram stain and aerobic and anaerobic culture) and examination under Wood light. Topical treatment was then administered with 1% clindamycin and 5% benzoyl peroxide for 4 months; patients were assessed after 1 and 2 months and after finishing treatment.

Under Wood light, we observed fluorescent orange-red spots on the affected areas in all the patients. The presence of *P. acnes* was demonstrated in 6 out of 10 biopsies of hypopigmented skin, and bacteria were isolated in the healthy skin of 2 patients (Table 2). After 2 months' treatment, the lesions improved (Figure 2) and examination under Wood light revealed that the fluorescence had disappeared.

Table 1 Patient Characteristics

Patient	Age, y	Sex	Skin phototype	Site	Duration, y	Acne
1	16	F	III	A, B	1	Yes
2	28	F	V	B	Unknown	Yes
3	22	F	IV	A, B, UL	Unknown	Yes
4	31	F	V	A, B	10	Yes
5	24	F	III	B	8	No
6	33	F	III	A, B	3	Yes
7	29	F	III	A, B	2	No
8	30	F	III	A, B	15	Yes
9	29	F	III	A, B	10	No
10	25	F	III	A, B	6	Yes

Abbreviations: A, abdomen; B, back; F, female; UL, upper limbs.

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Table 2 Results of Additional Tests and Clinical Course

Patient	Wood Light	Culture of Affected Skin	Culture of Healthy Skin	Sensitivity to Clindamycin	Clinical Course
1	+	+	+	Yes	No change
2	+	+	+	Yes	Improvement
3	+	–	–	–	Improvement
4	+	+	–	Yes	Improvement
5	+	+	–	Yes	Improvement
6	+	+	–	Yes	Improvement
7	–	–	–	–	Improvement
8	+	+	–	Yes	Improvement
9	+	–	–	–	Improvement
10	+	–	–	–	No change

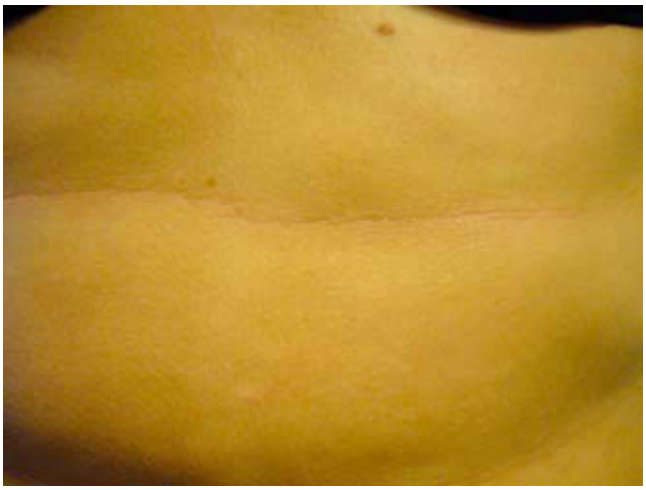

Figure 2 Improvement of the lesions after treatment.

Progressive and confluent macular hypomelanosis is a common disease that mainly affects young women and usually regresses after a few years. It should be differentiated from other acquired skin disorders that cause hypopigmentation, such as pityriasis versicolor.[2-4] *P. acnes* has been suggested as a causative agent involved in the development of progressive and confluent macular hypomelanosis, as a result of the production of a hypothetical depigmenting factor in young people, whose sebum secretion is higher.[3] No association between progressive and confluent macular hypopigmentation and acne has been demonstrated because different subtypes of *P. acnes* are involved.[3-5]

We believe there is a relationship between the presence of *P. acnes* and progressive and confluent macular hypomelanosis, based on the following:

1. Positive fluorescence in the hypopigmented macules
2. Positive cultures from affected skin (except for 4 patients, where the skin lesions were long-standing and had improved spontaneously) in 60% of the patients
3. Improvement of the hypopigmented macules after treatment with a topical antibiotic and benzoyl peroxide.

Further studies are required to determine the role of bacteria in the alteration of melanogenesis and the risk of recurrence of the lesions after treatment has ended.

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