To claim CME credit, complete this case-based posttest online at http://www.aad.org/olc. Note: CME quizzes are available after the first of the month in which the article is published. A minimum score of 70% must be achieved to claim CME credit. If you have any questions, please contact the Member Resource Center of the American Academy of Dermatology toll-free at (866) 503-SKIN (7546), (847) 240-1280 (for international members), or by e-mailing mrc@aad.org.

CME examination

Identification No. JD0519

May 2019 issue of the Journal of the American Academy of Dermatology.

Saleem MD, Oussedik E, Picardo M, Schoch JJ. J Am Acad Dermatol 2019;80:1233-50.

Directions for questions 1-5: Choose the single best response.

A 34-year-old previously healthy truck driver is referred by his primary care physician for the evaluation of numerous persistent hypopigmented macules over the past 2 years. The patient was previously treated empirically with oral ketoconazole, oral fluconazole, and selenium sulfide shampoo throughout the year without improvement. The patient denies any travel outside of the United States. The physical examination reveals numerous smooth, hypopigmented macules that coalesce to form patches predominately involving the upper trunk, chest, and upper proximal extremities. Multiple hyperpigmented scars are noted over his arm, which he attributes to recent burns over the past year. Decreased temperature sensation is noted in a radial distribution. The results of a potassium hydroxide preparation are unremarkable.

1. Which microbe is responsible for the patient's clinical presentation?
   a. *Leishmania*
   b. *Malassezia*
   c. *Mycobacterium*
   d. *Propionibacterium*
   e. *Treponema*

A punch biopsy specimen obtained from a hypopigmented macule reveals granulomas formed by histiocytes and epithelioid cells. A perineural monocytic infiltrate was present; the epidermis was unremarkable and periodic acid—Schiff stain did not reveal any fungus. Acid-fast stain revealed numerous bacilli within macrophages. The diagnosis was confirmed, and the patient is started on multidrug therapy (rifampin and dapsone). He returns 1 week later with exacerbation of his cutaneous condition, including erythema, edema, and tenderness.

2. What is the cause of the patient's symptoms?
   a. Anaphylaxis
   b. Glucose 6-phosphate dehydrogenase mutation
   c. Reduced C1 inhibitor levels
   d. Treatment resistance
   e. Type IV hypersensitivity reaction

A 17-year-old white female presents to the clinic for evaluation of chronic asymptomatic hypopigmented spots. They were first noticed over a year ago, with mild progression. Despite antifungal treatment, no significant improvement was noticed. The patient has no significant medical history. She currently takes oral contraceptive pills and reports no allergies. The physical examination reveals smooth, poorly defined, hypopigmented macules that coalesce into patches symmetrically over the trunk and gluteal region.

3. Which of the following is the next best step to confirm the diagnosis?
   a. Obtain a biopsy specimen
   b. Flow cytometry
   c. Intradermal skin test
   d. Polymerase chain reaction
   e. Wood's light examination

A Wood's light examination is performed.

4. What pattern is characteristic of this patient's condition?
   a. Localized green fluorescence
   b. Localized red fluorescence
   c. Diffuse green fluorescence
   d. Diffuse red fluorescence
   e. Absence of accentuation

The Wood's light examination reveals red follicular fluorescence in hypopigmented macules and patches. Her condition is bothersome and the patient requests treatment.

5. What is the most effective treatment for this patient?
   a. Multidrug therapy
   b. Oral ketoconazole
   c. Reassurance
   d. Topical corticosteroids
   e. Ultraviolet light phototherapy