Dx ACROSS THE SKIN COLOR SPECTRUM



Candrice R. Heath, MD
Assistant Professor, Department of Dermatology
Lewis Katz School of Medicine
Temple University
Philadelphia, Pennsylvania



Richard P. Usatine, MD
Professor, Family and Community Medicine
Professor, Dermatology and Cutaneous Surgery
University of Texas Health
San Antonio





Photographs courtesy of Richard P. Usatine, MD.

The authors report no conflict of interest. doi:10.12788/cutis.0426

Simultaneously published in *Cutis* and *The Journal* of *Family Practice*.

Sarcoidosis

THE COMPARISON

- A Pink, elevated, granulomatous, indurated plaques on the face, including the nasal alae, of a 52-year-old woman with a darker skin tone
- **B** Orange and pink, elevated, granulomatous, indurated plaques on the face of a 55-year-old woman with a lighter skin tone.

Sarcoidosis is a granulomatous disease that may affect the skin in addition to multiple body organ systems, including the lungs. Bilateral hilar adenopathy on a chest radiograph is the most common finding. Sarcoidosis also has a variety of cutaneous manifestations. Early diagnosis is vital, as patients with with sarcoidosis and pulmonary fibrosis have a shortened life span compared to the overall population. With a growing skin of color population, it is important to recognize sarcoidosis as soon as possible.

Epidemiology

People of African descent have the highest sarcoidosis prevalence in the United States.³ In the United States, the incidence of sarcoidosis in Black individuals peaks in the fourth decade of life. A 5-year study in a US health maintenance organization found that the age-adjusted annual incidence was 10.9 per 100,000 cases among Whites and 35.5 per 100,000 cases among Blacks.⁴

Key clinical features in people with darker skin tones:

- Papules are seen in sarcoidosis, primarily on the face, and may start as orange hued or yellow-brown and then become brown-red or pink to violaceous before involuting into faint macules.⁵⁻⁷
- When round or oval sarcoid plaques appear, they often are more erythematous. In skin of color, plaques may become hypopigmented.⁸
- Erythema nodosum, the most common nonspecific cutaneous lesion seen in sarcoidosis, is less commonly seen in those of African and Asian descent. 9-11 This is in contrast to distinctive forms of specific sarcoid skin lesions such as lupus pernio and scar sarcoidosis, as well as papules and plaques and minor forms of specific sarcoid skin lesions including subcutaneous nodules; hypopigmented macules; psoriasiform lesions; and ulcerative, localized erythrodermic, ichthyosiform, scalp, and nail lesions.
- Lupus pernio is a cutaneous manifestation of sarcoidosis that appears on the face. It looks similar to lupus erythematosus and occurs most commonly in women of African descent.^{8,12}
- Hypopigmented lesions are more common in those with darker skin tones.9
- Ulcerative lesions are more common in those of African descent and women 13

Dx ACROSS THE SKIN COLOR SPECTRUM

CONTINUED

- Scalp sarcoidosis is more common in patients of African descent.¹⁴
- \bullet Sarcoidosis may develop at sites of trauma, such as scars and tattoos. $^{15\text{-}17}$

Worth noting

The cutaneous lesions seen in sarcoidosis may be emotionally devastating and disfiguring. Due to the variety of clinical manifestations, sarcoidosis may be misdiagnosed, leading to delays in treatment.¹⁸

Health disparity highlight

Patients older than 40 years presenting with sarcoidosis and those of African descent have a worse prognosis. ¹⁹ Despite adjusting for race, ethnic group, age, and sex, patients with low income and financial barriers present with more severe sarcoidosis. ²⁰

REFERENCES

- Nardi A, Brillet P-Y, Letoumelin P, et al. Stage IV sarcoidosis: comparison of survival with the general population and causes of death. Eur Respir J. 2011;38:1368-1373.
- Heath CR, David J, Taylor SC. Sarcoidosis: are there differences in your skin of color patients? J Am Acad Dermatol. 2012;66:121.e1-121.e14.
- 3. Sève P, Pacheco Y, Durupt F, et al. Sarcoidosis: a clinical overview from symptoms to diagnosis. *Cells*. 2021;10:766. doi:10.3390/cells10040766
- Rybicki BA, Major M, Popovich J Jr, et al. Racial differences in sarcoidosis incidence: a 5-year study in a health maintenance organization. *Am J Epidemiol*. 1997;145:234-241. doi:10.1093/oxfordjournals.aje.a009096
- Mahajan VK, Sharma NL, Sharma RC, et al. Cutaneous sarcoidosis: clinical profile of 23 Indian patients. *Indian J Dermatol Venerol Leprol*. 2007;73:16-21.

- Yanardag H, Pamuk ON, Karayel T. Cutaneous involvement in sarcoidosis: analysis if the features in 170 patients. Respir Med. 2003;97:978-982.
- Olive KE, Kartaria YP. Cutaneous manifestations of sarcoidosis to other organ system involvement, abnormal laboratory measurements, and disease course. Arch Intern Med. 1985;145:1811-1814.
- Mañá J, Marcoval J, Graells J, et al. Cutaneous involvement in sarcoidosis. relationship to systemic disease. Arch Dermatol. 1997;133:882-888. doi:10.1001/archderm.1997.03890430098013
- Minus HR, Grimes PE. Cutaneous manifestations of sarcoidosis in blacks. Cutis. 1983;32:361-364.
- Edmondstone WM, Wilson AG. Sarcoidosis in Caucasians, blacks and Asians in London. Br J Dis Chest. 1985;79:27-36.
- James DG, Neville E, Siltzbach LE. Worldwide review of sarcoidosis. Ann N Y Acad Sci. 1976;278:321-334.
- Hunninghake GW, Costabel U, Ando M, et al. ATS/ERS/WASOG statement on sarcoidosis. American Thoracic Society/European Respiratory Society/World Association of Sarcoidosis and other Granulomatous Disorders. Sarcoidosis Vasc Diffuse Lung Dis. 1999;16:149-173.
- Albertini JG, Tyler W, Miller OF III. Ulcerative sarcoidosis: case report and review of literature. Arch Dermatol. 1997;133:215-219.
- Marchell RM, Judson MA. Chronic cutaneous lesions of sarcoidosis. Clin Dermatol. 2007;25:295-302.
- 15. Nayar M. Sarcoidosis on ritual scarification. Int J Dermatol. 1993;32:116-118.
- Chudomirova K, Velichkva L, Anavi B. Recurrent sarcoidosis in skin scars accompanying systemic sarcoidosis. J Eur Acad Dermatol Venerol. 2003;17:360-361.
- Kim YC, Triffet MK, Gibson LE. Foreign bodies in sarcoidosis. Am J Dermatopathol. 2000;22:408-412.
- Iannuzzi MC, Rybicki BA, Teirstein AS. Sarcoidosis. N Engl J Med. 2007; 357:2153-2165.
- Nunes H, Bouvry D, Soler P, et al. Sarcoidosis. Orphanet J Rare Dis. 2007;2:46. doi:10.1186/1750-1172-2-46
- Baughman RP, Teirstein AS, Judson MA, et al. Clinical characteristics of patients in a case control study of sarcoidosis. Am J Respir Crit Care Med. 2001;164:1885-1889.