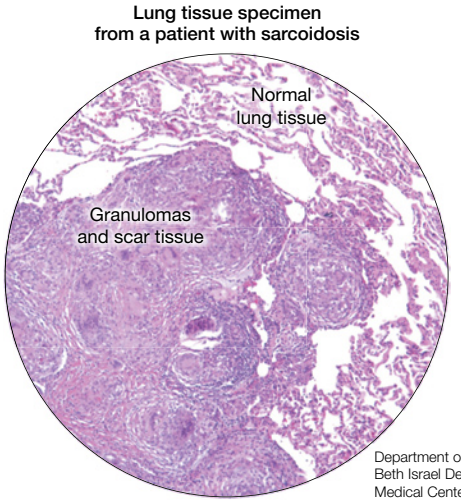
Sarcoidosis

Sarcoidosis is an inflammatory disease that usually affects the lungs, causing **granulomas** (inflammatory nodules). However, it can affect other organs, including the heart, liver, lymph nodes, skin, and eyes. Its symptoms vary depending on the areas of the body affected. Sometimes sarcoidosis is found incidentally, such as when a chest x-ray is taken for another reason. Although the cause is not known, it is thought that there is a **genetic** (inherited) tendency to develop an immune reaction when exposed to certain particles, which may result in organ damage. Sarcoidosis is not contagious, but proteins from certain bacteria may be involved in triggering the reaction. The January 26, 2011, issue of *JAMA* includes an article about sarcoidosis. This Patient Page is based on one previously published in the November 1, 2006, issue of *JAMA*.



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SARCOIDOSIS FACTS

- Although sarcoidosis occurs in individuals throughout the world, in the United States it is more common in African American than in white persons. Women are at greater risk than men.
- In most persons, sarcoidosis can improve on its own, but in about one-third it becomes chronic.
- Some individuals with sarcoidosis have no symptoms, yet others can be severely ill with multiple organ systems involved.
- Symptoms of sarcoidosis vary and can include generalized fatigue, weight loss, shortness of breath, dry cough, raised bumps on the shins (**erythema nodosum**), or unexplained fever. Persons who have heart involvement can have abnormal heart rhythms or heart failure. Brain involvement may cause changes in memory or mental acuity or strokelike symptoms. Sarcoidosis of the eyes (**uveitis**, with reddened or watery eyes) may lead to significant vision loss if untreated.

DIAGNOSIS AND TESTING

- Chest x-ray may reveal scarring or granuloma formation in the lungs.
- Breathing studies, such as spirometry, may reveal restriction in breathing capacity.
- Blood testing, computed tomography (CT scan), electrocardiogram, detailed eye examinations, biopsies or tissue sampling, and other testing may be required to look for involvement of organs besides the lungs.
- Although the risk of developing sarcoidosis is increased if a close family member carries the diagnosis, the risk is still very low, and screening healthy relatives for sarcoidosis is not warranted.

TREATMENT

There is no known cure, and treatment is based on an individual's symptoms and the degree to which involved organs are affected. Sometimes no treatment is necessary. Prednisone, an oral form of steroid, is usually the first treatment offered. Some individuals cannot tolerate the side effects of steroids, which can include high blood pressure, weight gain, thinning of the skin, **osteoporosis** (thin bones), and elevated blood glucose. Other medications may be prescribed, including medications that suppress the immune system and that decrease inflammation. Associated conditions such as fatigue, depression, **hypercalcemia** (increased calcium levels in the blood), kidney stones, and **pulmonary hypertension** (elevated vascular pressures in the lungs, which can adversely affect breathing and heart function) may require specialized attention.

FOR MORE INFORMATION

- National Heart, Lung, and Blood Institute
  www.nhlbi.nih.gov
- American Lung Association
  www.lungusa.org

INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page Index on *JAMA*'s Web site at www.jama.com. Many are available in English and Spanish. A Patient Page on lung transplantation was published in the December 15, 2010, issue of *JAMA*.

Sources: National Heart, Lung, and Blood Institute; American Lung Association

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