

Solution to [Test Your Knowledge: Renal Sarcoidosis](#)

1. a. Based on a review article by [Luft et al](#), hypercalciuria is the most common presentation of renal sarcoidosis, affecting about 50% of the patients.

2. c. The granulomas in sarcoidosis produce ACE. ACE levels are affected by ACE gene polymorphisms, and its use in diagnosing or monitoring sarcoidosis activity is controversial. Measurement of serum ACE levels lacks sensitivity and specificity (the positive and negative predictive values were only 84% and 74%, respectively, in one series). Thus, demonstrating histopathological evidence of sarcoidosis is vital in making this diagnosis. A transplant series from France reported a 27% recurrence of sarcoidosis in the 18 patients who received a kidney transplant. The presence of renal sarcoidosis before transplantation was associated with an increased risk for disease recurrence (ACE levels were not reported).

3. d. Gallium is taken up in areas of inflammation and granulomatous tissue by macrophages. Gallium scans are useful in evaluating pulmonary sarcoidosis and the extent of silent disease activity outside the thoracic cavity. Renal involvement may or may not be detected by Gallium scan. PET scans using fluorodeoxyglucose demonstrate increased metabolic activity in malignancy or inflamed tissues that take up the tracer. PET scans are nonspecific in diagnosing sarcoidosis, but can be useful in monitoring disease progression or remission. Ultrasounds are not useful for renal parenchymal diseases, though nephrocalcinosis or nephrolithiasis if present can be seen. Kidney biopsy remains the gold standard for diagnosing renal involvement by sarcoidosis and other granulomatous disorders.

4. e. DNA of *Propionibacterium acnes* has been isolated in cases of sarcoidosis. Whether this is a causative or an associative factor is not clear. Mycobacterial DNA has also been rarely found in granulomas of sarcoidosis.