

## ***Renal involvement in Sarcoidosis***

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### **I. Introduction :**

Sarcoidosis is a systemic granulomatosis that affects the lungs and mediastinum. Renal involvement is rare. in this disease. It is most often a granulomatous tubulointerstitial nephritis. The most common form is The most common presentation in Nephrology is naked renal failure.

### **II. Methods:**

This is a retrospective study of 12 cases of sarcoidosis complicated by acute renal failure. The study consisted of identifying the epidemiological, clinical, biological and histological data that confirmed the diagnosis from January 1994 to January 2016. A search for extra-renal locations of sarcoidosis was carried out in all cases. Then, a study of the therapeutic and evolutionary profile was carried out in all cases. The aim of this study is to determine the epidemiological, clinical, biological, histological and evolutionary profile of 12 patients with acute renal failure complicating systemic sarcoidosis and to emphasise the need for discuss this diagnosis in cases of unexplained renal failure.

### **III.Results:**

There were 12 patients (8 males and 4 females) with a mean age of 43 years. An intradermal tuberculin reaction was negative in 6 cases. Biological evaluation showed acute renal failure with a median creatinine of 54.32mg/ L, biological inflammatory syndrome in all cases, abnormally normal blood calcium in 6 hypercalcaemia in 6 cases, hypercalciuria in 4 cases, hypergammaglobulinaemia of apparent polyclonal in 3 cases and high 24-hour proteinuria in 2 cases. Renal ultrasound was normal in all patients. The renal biopsy performed in all cases showed tubular nephropathy interstitial. The extra-renal signs found were: pulmonary interstitial syndrome in 4 cases, dry syndrome in 2 cases, and the presence of atherosclerosis in 3 cases. In 4 cases, mediastinal lymphadenopathy in 4 cases, one patient had unilateral uveitis. 2 patients underwent extrarenal treatment. All patients were put on corticosteroids with a clear improvement in creatinine and normalisation of renal function in all patients. The average duration of the follow-up period is 18 months.

### **IV Discussion :**

Renal involvement in sarcoidosis is rare (10%) but may progress to renal failure (3% of cases). Parenchymal involvement corresponds to granulomatous tubulointerstitial nephritis, while glomerular disease remains exceptional, including extra-membranous glomerulonephritis. Renal failure, is sometimes indicative of sarcoidosis interstitial nephropathy, as in the case of all patients in our series. The renal biopsy is of great interest to sign the diagnosis of sarcoidosis especially in the absence of other extra-renal signs.

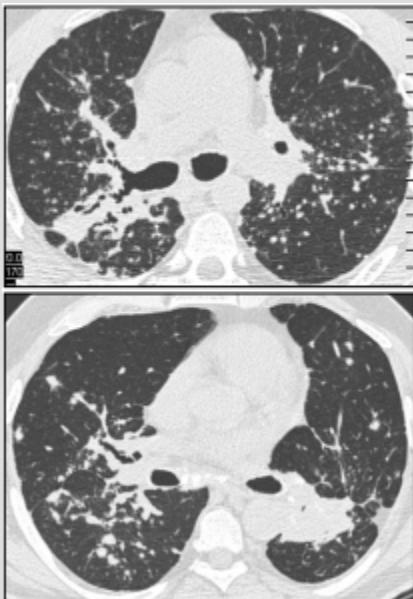
### **V. Conclusion:**

renal involvement in sarcoidosis is rarely revealing and may delay the diagnosis, leading to a chronic and even end-stage renal failure.

### **Références:**

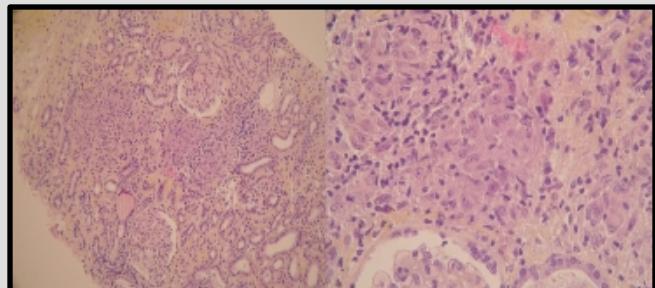
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- Baughman et al. Lancet Respir Med 2015
- Brito-Zerón et al. Expert Opin Pharmacother 2016

## **Mediastino-pulmonary involvement of our patients**



## **Renal involvement of our patients after renal biopsy**

Light microscopy images: sarcoid granulomas  
sarcoidosis granulomas in the  
tubulointerstitial



acute interstitial lesions:  
lymphocytic infiltrate, tubilitis chronic:  
fibrosis ++ and tubular atrophy

