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Distal renal tubular acidosis (dRTA) nephrolithiases and nephrocalcinosis in 7 cases of primary Sjögren syndrome (pSS)

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Introduction: Tubulo interstitial nephritis, the main manifestation of renal involvement in Sjögren syndrome, may lead to a tubular dysfunction that is usually subclinical. It may be disclosed by hyposthenuria, distal renal tubular acidosis (RTA) with nephrolithiasis and nephrocalcinosis.

Material and Method: Among 52 pSS's patients all fulfilled at least four of the European criteria for pSS, collected within the period from 1976 to 2011, seven of them with nephrolithiasis and or nephrocalcinosis.

Results: There are 5 women and 2 men, with a mean age of 48 years (range 29_66 yr), two patients had stone episode, 6 patients had xerophthalmia and 4 patients had xerostomia. Biopsy of salivary gland was undergoing in 6 cases showing class 2 in two cases class 3 in 3 cases and class 4 in one case.

At biology investigations; the mean serum concentration, of creatinine was 278.6 $\mu\text{mol/l}$; with chronic renal failure in 3 patients, of potassium was 4,9 mmol/l, and of chloride was 108 mmol/l. Three patients had metabolic acidosis.

Qualitative analysis of stone was done for one patient who haven't dRTA and revealed cystinuria.

Renal ultrasound, concluded to nephrocalcinosis in 2 cases, the rest of patient had nephrolithiasis.

Discussion: The frequency of nephrolithiases and nephrocalcinosis in our pSS patients was 12%. Only 14% of them had symptomatic calculi, renal ultrasound made diagnosis in 85% of cases.

Metabolic acidosis was the important factor of stone production observed in 3 patients. However in the other cases we must found other lithogenic factors such as cystinuria which is found in one patient. Qualitative analysis is one of the most important diagnostic measures.

Conclusion: Tubulo interstitial nephritis, the main manifestation of renal involvement in Sjögren syndrome, may lead to a tubular dysfunction with metabolic acidosis which is the most lithogenic factors. In patients without metabolic acidosis many other factors can induce calculi.

Stone and urinary crystals analysis are important for a successful treatment and prophylaxis to prevent any recurrence.