Sarcoidosis patients had more severe structural changes (in terms of dyshomogeneous echogeneity) of the thyroid gland vs healthy volunteers; however, this did not reach statistical significance (61.5% vs 35.2%, respectively, p=0.092). Sarcoidosis patients had increased frequency of thyroid nodules compared to controls; however, this did not reach statistical significance (Table 2). The vast majority (94.4%) of female patients with increased TRAbs presented thyroid structural abnormalities (dyshomogeneous parenchyma and/or nodules). Thyroid volume did not differ between the two groups (Table 2). Overall, indices of thyroid autoimmune disease (increased titers of thyroid autoantibodies and/or ultrasonographic hypoechoic pattern) were significantly more frequent in female sarcoidosis patients when compared to controls (84.4% vs 32.2%, p<0.001).

**Male subjects** (Table 3)

Thyroid disease was diagnosed in 3 male sarcoidosis patients before this study was performed; 2 patients presented multinodular goiter and 1 patient had a solitary thyroid nodule. One of the patients with multinodular goiter had been subjected to thyroidectomy.

**Laboratory measurements**

Basal TSH, FT4 and T3 levels were within normal limits and did not differ significantly between male patients and controls (Table 3). Overall, male patients exhibited higher frequency of thyroid serological autoimmunity compared to controls (47.8% vs 0%, p=0.001). TRAbs levels were significantly higher in sarcoidosis patients compared to healthy volunteers (p=0.006) (Table 3). A significantly larger number of patients presented positive TRAbs compared to controls (43.4% vs 0%, p=0.002). The TSH, FT4, TGAbs, TPOAbs and TRAbs values of TRAb positive patients were 2.13±2.64, 1.18±0.24, 26.44±34.55, 99.29±149.79 and 3.22±1.9, respectively. Of the male patients with positive TRAbs, 70% presented hypoechoic pattern in thyroid ultrasonography. TPOAbs and TGAbs were higher in the patient group, although this did not reach statistical significance (Table 3). Of the patients, 16.6% had positive TPOAbs and 4.1% had positive TGAbs but none of the controls had positive TPOAbs and/or TGAbs.

Serum ACE levels were not different between patients with and without serological autoimmunity (40.12±14.55 vs 41.54±18.35, respectively, p>0.05).

**Ultrasonography**

Hypoechoic pattern of the thyroid gland was significantly more frequent in the patient group when compared with controls (40.9% vs 6.25%, respectively, p=0.017). Thyroid volume and the frequency of thyroid nodules did not differ between the two groups (Table 3). Overall, indices of thyroid autoimmune disease were significantly more frequent in sarcoidosis patients when compared to controls (56.5% vs 6.2%, p=0.001).

**FNA (female and male patients)**

Fine-needle aspiration was performed in 3 sarcoidosis patients with thyroid nodules with a diameter >10mm. Cytological examination of the samples did not reveal the presence of non-caseating granulomas.

**Relationship between thyroid disease and various parameters in sarcoidosis patients**

The prevalence of thyroid antibodies in sarcoidosis patients with and without clinical autoimmune thyroid disease is presented in Table 4. All the patients with clinical AITD had evidence of serological autoimmunity (Table 4). When thyroid antibodies were examined...