

## ABSTRACT

**Background:** Thyrotoxicosis is an important and common endocrine disorder with high levels of morbidity. Local studies on the prevalence of control and the associated thyroid autoantibodies are lacking. **Objective:** To determine the clinical characteristics, the autoantibody profile, the modes of management and the prevalence of adequate control of hyperthyroid patients attending Medical and Radiotherapy Out-Patient Clinics at Kenyatta National Hospital. **Design:** Cross-sectional study. **Setting:** Kenyatta National Hospital, Nairobi, Kenya. **Subjects:** Patients attending Medical and Radiotherapy Out-Patient Clinics diagnosed to have hyperthyroidism, who were on treatment. **Methods** Eighty one patients with hyperthyroidism who were on treatment, were consecutively recruited from the medical outpatient clinic. Detailed history was taken and a physical examination performed on each patient. Blood samples were drawn for profiles of anti-Thyroperoxidase and Thyroglobulin autoantibodies and thyroid function tests which were done by Enzyme Linked Immunosorbant Assay test. The treatment modalities and the other investigations done were documented from the file. **Results** The mean age of the study participants was 37.8 +/- 12.6 years with a range of 15-67 years. The peak age was 26-35 years. The female to male ratio was 9: 1. The major clinical symptoms of the patients were fatigue and weakness (96.3%), heat intolerance and sweating (93.8%), awareness of the heartbeat (93.8%), hyperactivity and irritability (86%) and weight loss (76.5%). The main signs were goitre (91.4%), tremor (75.3%), warm and moist skin (64.2%), eye involvement (63%), tachycardia (48.1 %), muscle weakness (41.5%) and onycholysis (9.3%). Thyroperoxidase autoantibodies were positive at 41.5% and Thyroglobulin autoantibodies at 38.5% among the patients. Carbimazole was the preferred mode of therapy although biochemical control was achieved in less than 113 of the treated patients with 38% of the patients having been on treatment for over 2 years. Autoantibodies were significantly common among Graves disease patients, as expected. Thyroperoxidase antibodies were positive in 41 % of Graves disease patients as compared to only 2.4% in non-Graves disease patients. Thyroglobulin antibodies were positive in 38.5% of the Graves disease patients as compared to 2.4% in non-Graves patients. Thyroperoxidase autoantibody positivity was significantly associated with lack of biochemical control on treatment. **Conclusion** There is a high prevalence of poor biochemical control among patients with thyrotoxicosis in the clinic. Only 29% had achieved biochemical control on treatment. Thyroperoxidase autoantibody seropositivity is associated with poor biochemical control.