

PREVALENCE AND CLINICAL PATTERN OF GOITER IN SOUTH-WEST SHEWA REGION, ETHIOPIA

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Objectives

To describe the clinical pattern of endemic goiter in rural population of a region located in Ethiopian highlands, in which this disease is frequent.

Methods

111 consecutive patients evaluated in OPD of Wolisso hospital (south-west Shewa region, Ethiopia), from April 2006 to August 2008, with clinically detectable goiter underwent physical examination with special attention to signs of dysthyroidism, measurement of BP, HR, and BMI determination. In selected cases T3, T4 and TSH dosages were performed. The hospital activities is provided for a region of around 40 km diameter, located at an altitude from 1600 to 3200 meters, with 1.080.000 inhabitants.

Results

Visible goiter was found in 111 cases (95 females, 16 males, f/m ratio 5.9:1), over a population of 4265 patients (2,6% of population examined); mean age was 25.4 years (range 6-74). 11 patients out of this population, all females, showed clinical, laboratory evidence, or known history of hyperthyroidism (9 cases), while 2 showed clinical signs, or known history of hypothyroidism.

The rest of the population (100 cases, 84 females, 16 males, f/m ratio 5.3:1)



showed mean age of 24.8 years (range 6-74). In children until 10 years (9 patients aged 6 to 10 years, 7 females, f/m ratio 3.5), mean BP was 106/70 mm/Hg, HR 94 bpm and BMI 14.86. These values compared with normal population showed significant increase of diastolic BP and BMI in goiter population (normal population dia BP 53 mm/Hg, $p=0.01$, BMI 13.8, $p=0.04$). In middle age population (11-59 years, 90 patients, 77 females, f/m ratio 5.9, mean age 25.1), mean BP was 112/72 mm/Hg, HR 82 bpm, BMI 18.6.

BMI was significantly decreased in female goiter population (goiter females BMI: 18.7, normal females: 20.14, $p<0.01$), while BP and HR were similar.

No differences were found in BP, HR and

BMI between goiter and normal males population.

In old population (age >64 years) only two patients (1 female, 1 male) were found affected by goiter, so no statistical analysis was possible. Nevertheless their BP and BMI values exceeded those found in normal population.

Conclusions

The real prevalence of goiter was probably underestimated in our population, but insufficient uptake of alimentary iodine seems to be the leading cause of the disease. High BMI in younger affected population could be due to subclinic hypothyroidism, while in older population subclinic hyperthyroidism could be the possible cause of decreased BMI values.

