

Original article

Goiters in Some Iraqi Females

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ARTICLE INFO

Corresponding Email. hazim.abdulrahman@uofallujah.edu.iq**Received:** 10-09-2022 **Accepted:** 23-09-2022 **Published:** 26-09-2022**Keywords:** Study, Goiter, Iraqi, Females, Al Anbar.

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ABSTRACT

Background and aims. Goiter is a recognized disorder in females all over the world. This paper illustrates the goiter presentations of a sample of Iraqi females in one center in Al Anbar Provenance. **Methods.** This was a prospective, random collection of 320 Iraqi females in the general surgery outpatient clinic from Heet General Hospital between (1st August 2017 to 1st February 2019). We reported data after female/family consent to participate in the research, via direct clinical assessments, thyroid function tests, and goiter ultrasound. **Results.** Of 320 Iraqi females, eighty-six (26.8%) were in the peak age group (40-49). One hundred and twenty-six females had hypothyroid goiter (39.3 %), 141 females were euthyroid (44 %), and 53 females were hyperthyroid (16.5 %). **Conclusion.** Goiter is a common disorder among Iraqi females (especially in Al Anbar) that needs high clinical suspicion, government screening, and public awareness.

Cite this article: Rashid S, Alhiti H. Goiters in Some Iraqi Females. *Alq J Med App Sci.* 2022;5(2):479-482.<https://doi.org/10.5281/zenodo.7114227>

INTRODUCTION

Indeed, goiter conveys a familiar and one of the common disorders in the world. It signifies a thyroid swelling in the front of the human neck. The thyroid gland denotes a butterfly gland that is one of the endocrine glands that produce vital hormones that control body metabolism. Ordinarily, goiter is the common thyroid condition in females. It varied widely in their shapes, textures, functions, and pathology [1].

Hyperthyroid goiter denotes an overactive goiter that delivers excessive thyroxine (thyroid hormone). The hypothyroid goiter signifies a gland secreting insufficient thyroxine amounts that the body needs. Undoubtedly, a euthyroid goiter portends a subnormal activity goiter that delivers within normal thyroxine hormone. Hence, thyroid hormones control cell metabolism, cellular growth, and organ functions. Moreover, the familiar reasons for abnormal gland secretion: are Graves' disease, disturbed iodine intake, wrong thyroxin pill dosage, thyroiditis, thyroid nodule, and thyroid cancer [2].

Typical patient symptoms vary from weather intolerance, irregular heart rates, psychological disturbances, and weight changes. Generally, laboratory tests revealed abnormal serum thyroid hormones with corresponding changes in serum thyroid stimulating hormone.

Several therapies for hyperthyroidism depend on individual preference, thyroid state, patient age, goiter pathology, and comorbid diseases [3]. Fortunately, there are seventy-nine Iraqi articles concerning (goiter) on the (IASJ) Website. Indeed, these Iraqi papers dealt with goiter from multiple views regarding clinical, pathological, biochemical, nursing, and epidemiological characteristics. Similarly, Iraqi researchers dealt with the topic (of the thyroid) more deeply, so there are 663 studies regarding the thyroid gland in Iraqi citizens in their biochemical, pathological, clinical, nursing, and epidemiological characteristics. Indeed, sixteen Iraqi articles for (thyroid gland) in the Al Anbar Provenance due to iodine deficiency [4]. We illustrate the goiter presentations of a sample of Iraqi females in one center in Al Anbar Provenance.

METHODS

Study design and setting

This paper illustrates a prospective, random collection of 320 Iraqi females in the general surgery outpatient clinic from Heet General Hospital between (1st August 2017 to 1st February 2019).

Data collection procedure

We reported our patients' data after female/family consent to participate in the research via direct physician assessments, ordered thyroid function tests, plus an ultrasound of the goiter. Microsoft Excel 2010 organizes these data.

RESULTS

Of 320 Iraqi females, eighty-six were in the peak age group (40-49) years old (26.8 %). One hundred and twenty-six females had hypothyroid goiter (39.3 %), 141 females were euthyroid (44 %), and 53 females were hyperthyroid (16.5 %).

Table 1. The distribution of Goiters according to the female age (years) and thyroid functions, time of presentation, and female residency

| Disorders | ≤19 | 20-29 | 30-39 | 40-49 | 50-59 | ≥60 | Total |
|---------------------|-----------|------------|-----------|------------|-----------|-----------|-------------|
| Hypothyroid | 13(4 %) | 38(11.8 %) | 25(7.6 %) | 29(9 %) | 18(5.6 %) | 13(4 %) | 126(39.3 %) |
| Euthyroid | 8(0.2 %) | 24(7.5 %) | 31(9.6 %) | 50(15.6 %) | 23(7.3 %) | 5(0.15 %) | 141(44 %) |
| Hyperthyroid | 13(4 %) | 9(0.2 %) | 18(5.6 %) | 7(0.2 %) | 14(3.9 %) | 2(0.06 %) | 53(16.5 %) |
| Total | 24(7.5 %) | 71(22 %) | 74(23 %) | 86(26.8 %) | 55(17 %) | 10(0.3 %) | 320(100 %) |

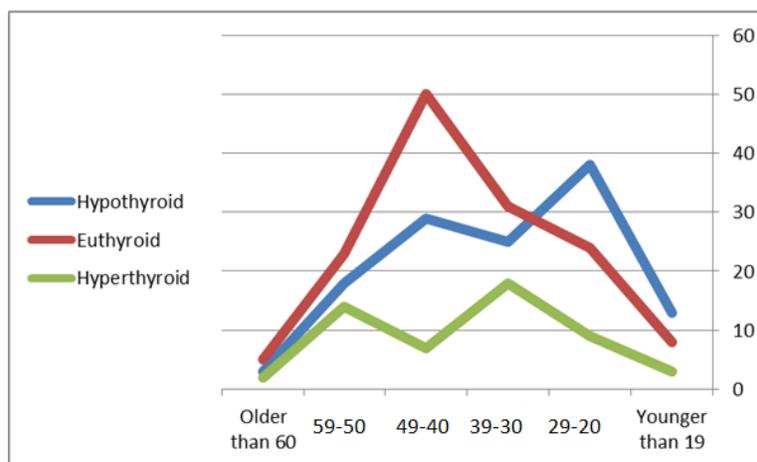


Figure 1. The distribution of Goiters according to the female age (years) and thyroid functions.

DISCUSSION

Fourthly, many ancient civilizations dealt with goiters in different ways in the goiter diagnosis and treatment. Indeed, seventy-nine Iraqi articles concerning (goiter) and 663 for (thyroid gland). Similarly, sixteen papers for (thyroid gland) in the Al Anbar. Hence, we illustrate the goiter presentations of a sample of Iraqi females in the general surgery outpatient clinic from Heet General Hospital between (1st August 2017 to 1st February 2019).

Fortunately, this paper contains good sample size compared to the published articles about this topic in Al Anbar medical library. Hence, authors incorporated three hundred and twenty Iraqi females. So, this study enhances the Iraqi library about the goiters in Iraqi females from Al Anbar Provenance.

In the current study, eighty-six Iraqi females were in the peak age group (40-49) years (26.8 %). Accordingly, this finding went with many relevant studies [5]. Indeed, this is a logical result as thyroid problems grow with age due to the development of thyroid nodules, intra-glandular changes, follicular changes, stress, comorbidities, and sex hormone

derangement. Moreover, goiter is the least in the elderly females over sixty due to women death or hidden under their hijab, less attracted in the association of other comorbidities, that is parallel with the former articles [6].

Still, twenty-four goiters (7.5 %) are less young than 19 years old. Indeed, this might be goiters hidden under the female hijab or a lack of goiter screening, which is identical to the prior studies [7]. Ordinarily, the Iraqi ministry of health does not screen goiter [8]. Furthermore, the growing cases of goiters with age peaked in (40-49) then diminished with age. Subsequently, these significant outcomes went well with the published academic papers in the world [9].

Table 1 and figure 1: the distribution of goiters according to the female age (years) and thyroid functions. Ordinarily, one hundred and twenty-six Iraqi females had hypothyroid goiter (39.3 %). Indeed, this is an expected result (that alike previous investigations) due to familiar iodine deficiency in the soil, race, and lack of use of iodized salts [10]. Indeed, Goiter affects both pregnant & fetus health. The Iraqi ministry of health applied screening of thyroid disease for Iraqi newborns. Moreover, congenital hypothyroidism is a treatable endocrine disorder that affects mental growth and body metabolism [11]. The government of Iraq and Kurdistan applied an obligatory neonatal screening agenda as a routine practice in all governments to prevent hypothyroidism [12]. Moreover, 141 Iraqi females were euthyroid (44 %). Hence, this could be due to Euthyroid sick syndrome, goiter on treatment, pneumonia, malnutrition, physiological due to growth, fasting, anorexia nervosa, trauma, psychological stress, malignancy, sepsis, hypothermia, renal failure, myocardial infarction, cirrhosis, and diabetes mellitus.

This finding verified well with preceding Iraqi studies [13]. Moreover, 53 females were hyperthyroid (16.5%). Accordingly, this result indicates a meaningful outcome due to a lower report of hyperthyroid goiter. Hence, the familiar causes of hyperthyroid goiter are Graves' disease, thyroiditis, and toxic thyroid nodules. Although, there are less common causes of hyperthyroidism in the world and in Iraq [14]. Hence, the authors depend on reliable laboratories and reliable radiologists, plus repeated abnormal tests in more than one lab. Consequently, the authors ordered the females to repeat their tests after two/three months, depending on the individual case. This article verified well with earlier Iraqi papers [15].

CONCLUSION

Goiter is a recognized disorder among Iraqi females (especially in Al Anbar) that needs high clinical suspicion, government screening, and public awareness.

Disclaimer

The article has not been previously presented or published, and is not part of a thesis project.

Conflict of Interest

There are no financial, personal, or professional conflicts of interest to declare.

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