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Prevalence of hypothyroidism among adults in Shaqra

Basil Almutairi*, Abdulilah Aldosari, Amer Khan

Department of Basic Medical Sciences, College of Medicine at Shaqra, Shaqra University, KSA

* Presenting Author

Introduction:

The thyroid gland is one of the most important organs in the human body, and the burden of thyroid diseases in the general population is enormous, especially in females. Hypothyroidism is a chronic disease associated with a deficiency in the thyroid hormones, thyroxine (T4) and triiodothyronine (T3). The consequences of untreated or inadequately treated hypothyroidism include infertility, cardiovascular disease, and neurological and musculoskeletal symptoms. Environmental iodine deficiency is the most common cause of thyroid disorders, including hypothyroidism, worldwide, while in areas of iodine sufficiency, the most common cause of primary hypothyroidism is autoimmune thyroiditis (Hashimoto's disease). Hypothyroidism is also associated with decreased quality of life, an increased number of sick leave days, and even increased mortality. Levothyroxine is the mainstay of treatment for hypothyroidism and is one of the World Health Organization's essential medicines required for basic health care.

Methods:

We analyzed retrospectively the data of 451 participants, whose ages ranged from 16 to 45 years. All patients were from the population of the Shaqra governorate, Saudi Arabia. All data were collected on the basis of an online questionnaire. A history of hypothyroidism and taking thyroid replacement therapy were included. Patients who are pregnant were excluded. The study was designed to investigate hypothyroidism among Saudi adult males and females to determine the prevalence of hypothyroidism in the study population in order to compare the results to other populations worldwide.

Inclusion criteria: All diagnosed cases of hypothyroidism who are taking thyroid replacement therapy.

Exclusion criteria: 1. Patients who are pregnant

2. Children below 12 years

Conclusion:

In our study, the prevalence of hypothyroidism was 16.2%. Females are more affected than males, as 49 (67.13%) of the cases were female and 24 (32.87%) were male; most of them were aged between 16 and 45 years; and 40 cases (54.8%) had a family history of hypothyroidism, out of which 28 females (70%) and 12 males (30%) reported the prevalence of hypothyroidism in their families. Furthermore, public awareness should be created among people of all age groups, especially females. People should be encouraged to get regular checkups and have thyroid function tests periodically.

Result:

The initial screening of 451 subjects revealed 230 (51%) males and 221 (49%) females. Most of the subjects (266) were in the age group of 16-25 years; 49 subjects were between 26-35 years; 55 subjects were between 36-45 years; and 81 subjects were above 45 years, as shown in tables. Among them, we found 73 (16.2%) cases of hypothyroidism. Among the cases of hypothyroidism, there were 49 (67.13%) cases among females and 24 (32.87%) cases among males. A total of 40 cases (54.8%) had a family history of hypothyroidism, of which 28 females (70%) and 12 males (30%) reported the prevalence of hypothyroidism in their families.

Gender
الجنس

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female (انثى)	221	49.0	49.0	49.0
	Male (ذكر)	230	51.0	51.0	100.0
	Total	451	100.0	100.0	

Cases with family history in males and females

Count

		Is there family history of hypothyroidism هل هناك تاريخ عائلي لإصابة بقصور الغدة الدرقية		
		No (لا)	Yes (نعم)	Total
Gender الجنس		0	0	0
	Female (انثى)	172	21	28	221
	Male (ذكر)	206	12	12	230
Total		378	33	40	451

References:

1. LaFranchi S. Adolescent Thyroid Disorders. Adolesc Med. 1994;5(1):65-86.
2. Vanderpump MP. The epidemiology of thyroid disease. Br Med Bull. 2011;99:39-51.