FREQUENCY OF GOITER IN HOSPITALIZED PATIENTS OF DISTRICT HEADQUARTERS HOSPITAL, TIMERGARA

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ABSTRACT

OBJECTIVES

The aim of this study was to determine the frequency of goiter among the population of Timergara, Lower Dir.

METHODOLOGY

A retrospective study was carried out at the district headquarters hospital Timergara hospital of district lower dir. The study duration was one year from January 2018 to December 2018. The data were collected from 205 patients in the district headquarters hospital Timergara district lower dir. the clinical data of patients were collected through proforma. It was approved by the research committee of the Department of the surgical, institute of paramedical sciences, Khyber medical university Peshawar Duranpur Khyber Pakhtunkhwa, Pakistan. Percentage and frequencies have been used to determine the frequency of goiter at district lower dir. SPSS version 22 was used for data analysis.

RESULTS

This study shows that goiter is most frequently occurring in females as compared to males. out of 205 patients with goiter 58 patients were male and 147 were female. Female frequency was higher than male. Secondly, it was observed that goiter is more frequent in people aged 35 -44. i.e., out of 205 patients, 37.1% were in this age group. patients having goiter were mostly from hilly areas (61.5%). It was also observed in this study large number of patients were having visible goiter of grade two.

CONCLUSION

It was concluded that goiter most of the females and older population are suffering from the goiter.

KEYWORDS: *TSH, Hormone, Triiodothyronine, Tetra iodothyronine, Goiter*

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INTRODUCTION

Goiter is mainly caused by iodine deficiency as seen in more than ninety-four and a half per cent of cases worldwide. The protuberance in the neck area resulting from the abnormal expansion of the thyroid gland is called goiter. The two conditions which can lead to goiter development are hypo and hyper thyroids.[1] Goiter can be detected if it increases three times its normal size. According to the world health organization report, 7% of the total population of the world are suffer from visible goiter.[2] The thyroid gland enlargement is the most common problem in northern areas of kapok such as chital, Swat and Dir. It is mostly caused by the deficiency of iodine. Goiter can also be caused due to inflammation, drugs, exposure to radiation and genetics.[3] In 1998 the UNICEF report shows that about 70 per cent of the total population in Pakistan has the disorder of the deficiency of iodine.[4] The resulting decrease of iodine from the normal level causes a disorder known as goiter.[5] In the northern hilly areas of Pakistan, the poor socio-economic status, unavailability of the proper health care facility and lack of public awareness increase the risk of further enlargement of goiter. The result is chronic large goiter for a long period, therefore, making the surgical procedure further complex.[6] In

chronic and large-size goiter the conformation of cancerous cells is important by histopathological examination.[7] Most studies have demonstrated a high thyroid size increase in men as compared to women this is due to its correlation with the slant body weight. The palpable goiter frequency ratio is lower in men than women. In women's thyroid, nodules are more prevalent. Although in males the thyroid size is bigger. Thyroid enlargement is two to ten times more frequent in females. Up to forty years of age the thyroid volume increase but from then onward it is followed by a slope in thyroid volume with normal availability of iodine. Those areas which have severe deficiency of iodine have a peak prevalence of goiter in the early life while in other regions with mild deficiency of iodine the goiter prevalence peak appears in adulthood or at a later age.[8] The disorders of the thyroid gland are common clinical issues related to ageing. A study reported an increase in thyroid gland weight and size with an increase in age. Further assessment of enlarged thyroid gland by the autopsy and ultrasound study has shown that increased age is accompanied by a high incidence of goiter more specifically in places deficient in iodine.[9] A demonstrated that the rate of occurrence of goiter in the old age people has reached 74.2% inpatient aged 55 or more and 55% in patients aged 75 or more.[10] The study was conducted in Bahawalpur Pakistan, which shows that the frequency of goiter in females was 87.5% and 12.5% were in males out of 80 patients. The frequency of goiter was higher i.e., 50% in patients having age group ranging from 18-28, while the frequency of goiter in the age group 28-38 was 31.25% and the lowest frequency of goiter i.e., 18.75% were found at age group ranging from 38-50. this study also shows that the frequency of goiter was more common in females than males.[11] The frequency of goiter in regions of severely iodine-deficient areas can be extremely large and reach up to 80%. Many regions of the world which are deficient in iodine affect nearly 2 million people worldwide.[12] Therefore, this study was designed to figure out the prevalence of goiter in Timergara, Lower Dir (Pakistan).

METHOLODOGY

This was a descriptive cross-sectional retrospective study. The duration of the study was one year from January 2018 to December 2018; all those patients of goiter were selected for the study who attended hospital in this mentioned period. The sample size was calculated according to the WHO calculator which comes out to be 205. As this was a retrospective study so samples were collected purposively from the available record of patients through proforma. clinical data were collected from hospitalized patients from District Headquarter Hospital (DHQ) Timergara and other health care facilities in lower dir. the study was approved by the research committee of the Department of the surgical, institute of paramedical sciences, Khyber medical university Peshawar Duranpur Khyber Pakhtunkhwa, Pakistan. Percentage and frequencies have been used to determine the frequency of goiter at district lower dir. Statistical package for social sciences (SPSS) version 22 was used for data an alysis.

RESULTS

Table 1: Demographic-wise Presence of the Goiter

		Frequency (f)	%Age
Gender	Male	58	28.3%
	Female	147	71.7%
Age	14-24	21	10.2%
	25-34	66	32.2%
	35-44	76	37.1%
	45-70	42	20.5%
Residences	Palne	79	38.5%
	Hilly	126	61.5%

DISCUSSION

This study was conducted at lower Dir (Timergara) to find out the frequency of goiter patients. It was observed that females were more diagnosed with goiter disorder. A study reported that in northern regions 20.4% of the male and 28.1% of the female were diagnosed with goiter as compared to the population of southern regions.[13] A study conducted in India showed that goiter was slightly high in males (07.82%), whereas a study performed in Kashmir valley indicated that the prevalence of goiter in females (16.12%) was higher than the male (10.10%) respectively.[14,15] In the district Sukkur (Sindh), the prevalence of goiter patients based on age and sex shows that goiter patients gender-wise were 94.6% female and 5.26%, male. According to age-wise distribution, 31-50 years had a high prevalence of goiter which was 70% (40 out of 57) and lowest in the age group 51-75% which was 7% (4 out of 57%).[16]. one of the studies showed that female (3x) had more iodine deficiency than males.[17] Our study results are in accordance with the above-published literature. The goiter developed due to the iodine deficiency. There should be some programs on the implementation level to improve and manage the iodine consumption in such regions

or targeted populations. In Ethiopia, the obligatory universal iodization of salt was being executed by the Ethiopian Demographic and Health Survey of 2016, around 89 percent of the families were using iodized salt.[18]

CONCLUSION

It was concluded that goiter occurs more frequently in females, older and those living in hilly regions.

LIMITATIONS

In this study, medical and other conditions contributing to the development of the goiter were not assessed.

CONFLICT OF INTEREST: None

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