Original Article

A study of the risk factors of thyroid nodule and goitre at tertiary health care center

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Abstract

Introduction: The term "thyroid nodule" refers to a distinct lesion within the thyroid gland that is palpably or radio logically distinct from the surrounding thyroid parenchyma. Thyroid nodules are common, seen in about 8.5% of the population. **Aims and Objectives:** Study of the Risk Factors of Thyroid nodule and Goitre at tertiary health care center. **Methodology:** This was cross-sectional study carried out at the Surgery department of tertiary health care Centre in both the Outpatient Department and in Patients department during one year period from July 2014 to July 2015.All the Patients in OPD and ward were screened for Thyroid nodule and Goitre and all diagnosed patients was included into the study. Total 56 patients were found during the study period. The Patients who were previously operated for the thyroid came for follow up were excluded from the study. The Percentages and Tables are used to present the data. **Result:** Majority of the of the patients were in the age group of 40-50-41.81%; >50-27.27%; 30-40-14.54%; 20-30-9.09%;10-20-5.45%;1-10-1.81%**.** Majority of the patients were Female i.e. 69.09% followed by Male - 30.91%**.**Majority of the Patients associated risk factors were ; H/O Menopause -65.78%; Obesity-47.27%; Smoking -38.18%; Family history -27.27%; H/O Hypertension -23.63%;H/O Diabetes -16.36%,Female sex -69.09%. **Conclusion:** In our study the most common risk factors associated found were H/O Menopause in Female; Obesity; Smoking; Family history; H/O Hypertension; H/O Diabetes; Female sex.

Keywords: Risk Factors of Thyroid nodule, Goitre, Hypertension, Menopause.

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INTRODUCTION

The term "thyroid nodule" refers to a distinct lesion within the thyroid gland that is palpably or radio logically distinct from the surrounding thyroid parenchyma. Thyroid nodules are common, seen in about 8.5% of the population.[1] They are more common among women. In India the prevalence of a palpable thyroid nodule in the community is about 12.2%, according to a recent study.[2] However, thyroid cancer is quite rare, and the incidence is 8.7 per 100000 people per year, though this seems to be increasing over the years.[3] Thyroid nodule (TN) and Goitre are two common benign thyroid disorders that have global influence[3-8]. The presentation of these two conditions range from mild changes in thyroid structure without clinical manifestations to severe symptoms such as breathing and/or swallowing difficulties that affect life quality and expectancy. In one study, Allan Carlé et al. reported approximately 10% of the world population was affected by Goitre[7]. Research on the prevalence of TN otherwise reported that it approached 50% when the nodules were detected by ultrasound and/or other radiologic methods[9]. In addition, both conditions have been associated with multiple pathologic conditions of the thyroid including thyroiditis, endocrine dysregulation, and autoimmune disease[4-9]. TN and Goitre have multiple known risk factors, which include demographic parameters and clinical history. Age and sex respectively correlates with the pathogenesis, increasing the prevalence of TN and Goitre in residents of the United States [10, 11]

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MATERIAL AND METHODS

This was cross-sectional study carried out at the Surgery department of tertiary health care Centre in both the Outpatient Department and in Patients department during one year period from July 2014 to July 2015.All the Patients in OPD and ward were screened for Thyroid nodule and Goitre and all diagnosed patients was included into the study. Total 56 patients were found during the study period. The Patients who were previously operated for the thyroid came for follow up were excluded from the study. The Percentages and Tables are used to present the data.

RESULT

Table 1: Age wise distribution of the Patients

Age	No.	Percentage (%)
1-10	1	1.81%
10-20	3	5.45%
20-30	5	9.09%
30-40	8	14.54%
40-50	23	41.81%
>50	15	27.27%
Total	**55**	**100.00%**

Majority of the of the patients were in the age group of 40-50-41.81%; >50-27.27%; 30-40-14.54%; 20-30-9.09%;10-20-5.45%;1-10-1.81%.

Table 2: Genderwise Distribution of the Patients

Sex	No.	Percentage (%)
Male	17	30.91%
Female	38	69.09%
Total	**55**	**100.00%**

Majority of the patients were Female i.e. 69.09% followed by Male - 30.91%.

Table 3: Distribution of Associated Risk –factors with The Patients

Risk Factors Associated	No.	Percentage (%)
H/O Menopause *	25	65.78%
Obesity	26	47.27%
Smoking	21	38.18%
Family history	15	27.27%
H/O Hypertension	13	23.63%
H/O Diabetes	9	16.36%
Female sex	38	69.09%

(*here denominator used is 38 –Total No. of females)

Majority of the Patients associated risk factors were; H/O Menopause in Female-65.78%; Obesity-47.27%; Smoking -38.18%; Family history -27.27%; H/O Hypertension -23.63%; H/O Diabetes -16.36%, Female sex -69.09%.

DISCUSSION

TN and Goitre are frequent screening findings wherein patients may or may not present with clinical symptoms and abnormal laboratory tests. Given these two conditions are highly prevalent and associated with multiple thyroid pathologic conditions including cancer, it is pertinent to advocate routine thyroid examinations in the general population. In our study we found Majority of the of the patients were in the age group of 40-50-41.81%; >50-27.27%; 30-40-14.54%; 20-30-9.09%; 10-20-5.45%;1-10-1.81%. here we found that the disease was more common in 40-50 age group as compared old age reason could be because of menopausal age for women is 40-50 also the disease is common in females i.e. Majority of the patients were Female i.e. 69.09% followed by Male - 30.91% this in confirmation with Vander JB[12]. Also Majority of the Patients associated risk factors were ; H/O Menopause in Female-65.78%; Obesity-47.27%; Smoking -38.18%; Family history-27.27%; H/O Hypertension -23.63%;H/O Diabetes -16.36%,Female sex -69.09%. This is in confirmation with Lei Zheng[13]

CONCLUSION

In our study the most common risk factors associated found were H/O Menopause in Female; Obesity; Smoking; Family history ;H/O Hypertension; H/O Diabetes; Female sex.

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