

Thyroid Gland Dimensions in Nigerians: Determinants and Non-determinants

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Background: Determination of the size or volume of the thyroid gland is of importance in the evaluation and treatment of its disorders. The size of the normal gland has been reported to vary with a number of factors such as geography, sex, age, body surface area, and body mass index. Local Nigerian studies on this are unavailable. One of the most widely accepted techniques for estimating the thyroid volume is ultrasonography (USS). There are no Nigerian reports on the ultra sound determination of the volume of the thyroid.

Aim/Objective: To determine and compare the size characteristics of the thyroid gland in costal Nigerians with and without clinical goiters

Methods: In a cross-sectional study, we determined the height, breath, and depth of 134 Nigerians from the costal Nigerian city of Lagos. We also obtained the age, sex and anthropometric measurements of participants. We compared results of groups using median (interquartile) values.

Results: The right lobe was larger than the left in both healthy and goitrous individuals. Similarly, male had larger heights and volume than females in both goitrous and agoitrous subjects. Relation of height, BMI and age to thyroid volume was weak in both males and females.

Conclusion: The thyroid volumes of Coastal Nigerian Lagos appear to vary with sex in healthy and goitrous Nigeria. The relation of thyroid dimensions with anthropometric measurements and age appear weak in adult Nigerians.

Keywords: Thyroid Gland Volume, Sex Effect, Lagos Nigerians, Determinants.



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Background: Determination of the size or volume of the thyroid gland is essential for the evaluation and treatment of its disorders. The size of the normal thyroid gland is known to vary with a number of factors such as geography, sex, age, body mass index. Local Nigerian studies on this are unavailable. One of the most accurate techniques for estimating the thyroid volume is ultrasonography. This study reports on the ultrasonographic determination of the volume of the thyroid gland in healthy Nigerians.

Aim/Objective: To determine and compare the size characteristics of the thyroid gland in healthy and without clinical goiters.

Methods: In a cross-sectional study, we determined the height, body mass index, and thyroid volume in 100 healthy Nigerians from the coastal Nigerian city of Lagos. We also obtained anthropometric measurements of participants. We compared results with interquartile values.

Results: The right lobe was larger than the left in both healthy and goitrous Nigerians. Similarly, male had larger heights and volume than females in both healthy and goitrous subjects. Relation of height, BMI and age to thyroid volume was weak in both healthy and goitrous females.

Conclusion: The thyroid volumes of Coastal Nigerian Lagos appear to be similar to those of healthy and goitrous Nigeria. The relation of thyroid dimension to anthropometric measurements and age appear weak in adult Nigerians.

Keywords: Thyroid Gland Volume, Sex Effect, Lagos Nigerians, Determinants