

CT scan of thyroid goiter for preoperative evaluation and operative planning.

Slavica Jakimovska¹; S. Ilieva¹; M.Jakimovska²;
S.Jovanoska³;

General Hospital Kumanovo¹;

General Hospital 6 Septemvri Skopje ²;

Diagnostic Center "Sv.Spas" Kravari³

Introduction

Goiter is an enlargement of the thyroid gland. The thyroid gland is a small, butterfly-shaped gland located in the neck, below your Adam's apple.

Thyroid hormones influence such bodily functions as a person's body temperature, mood and excitability, pulse rate, digestive functions, and other processes necessary for life. Over 90.54% cases of goitre are caused by iodine deficiency.

Retrosternal goitre is usually referred to as enlarged thyroid gland with greater than 50% of its mass below the thoracic inlet. It has a clinical importance because its compressive symptoms may cause diagnostic problems and the selection of surgical approach is sometimes difficult.

If the goiter extends into the chest or is very large, a CT scan is used to evaluate the size and extent of the goiter.

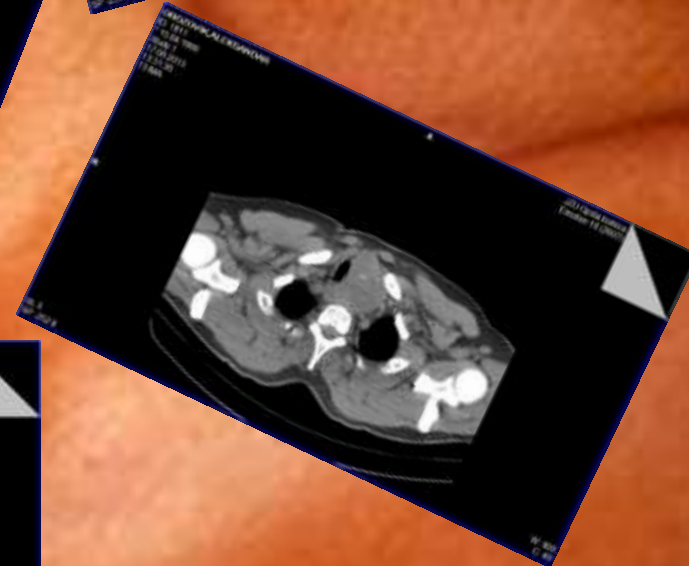
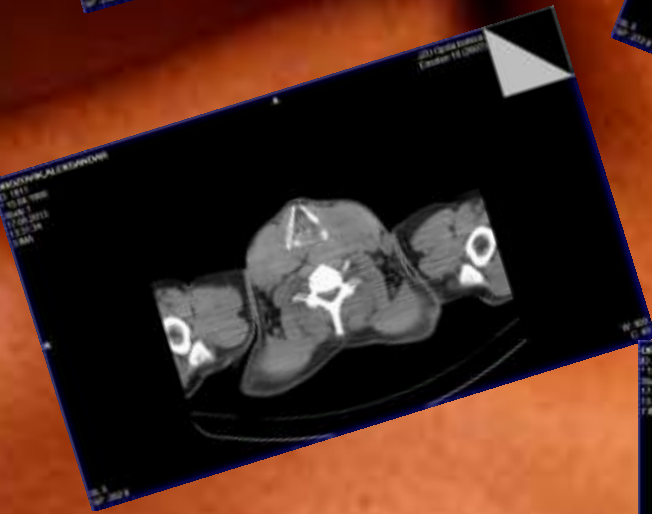
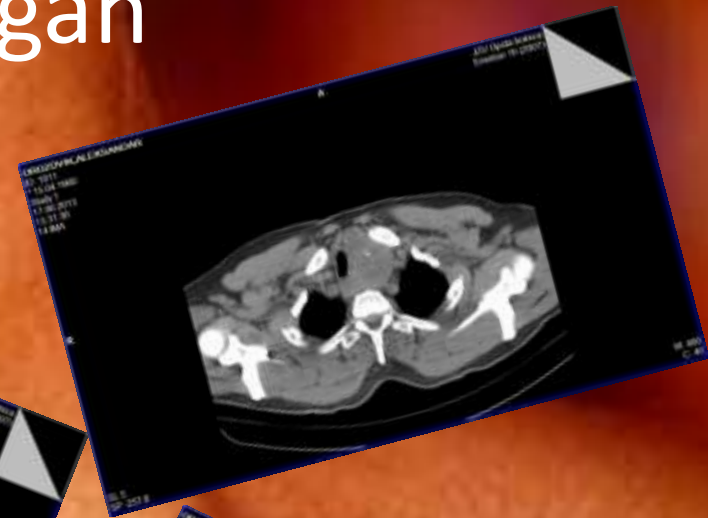
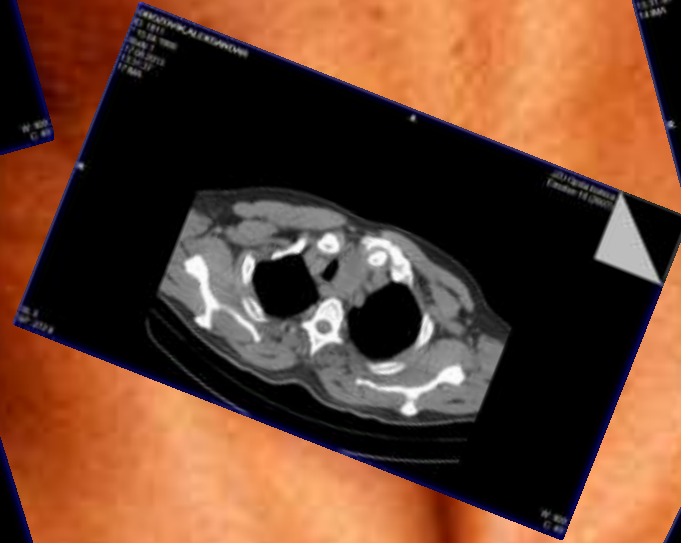
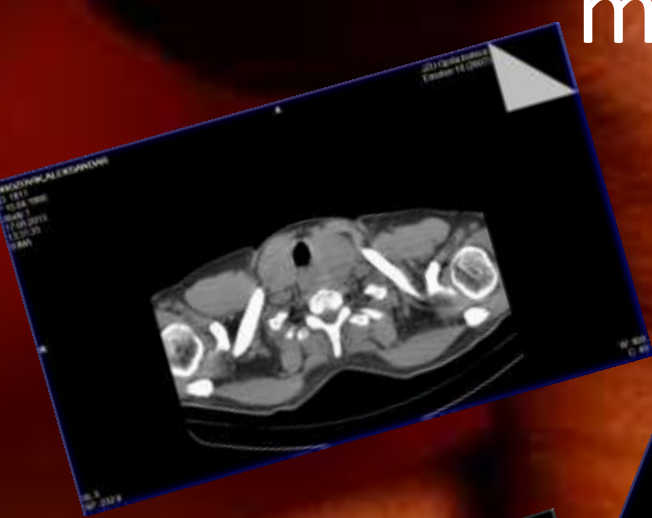
Goiter of left lobe of thyroid gland



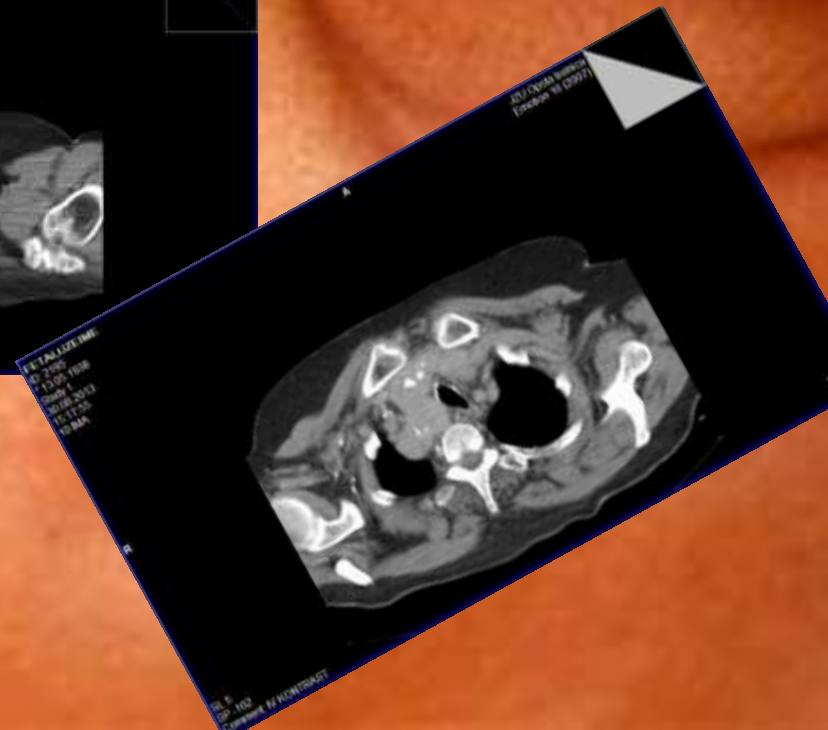
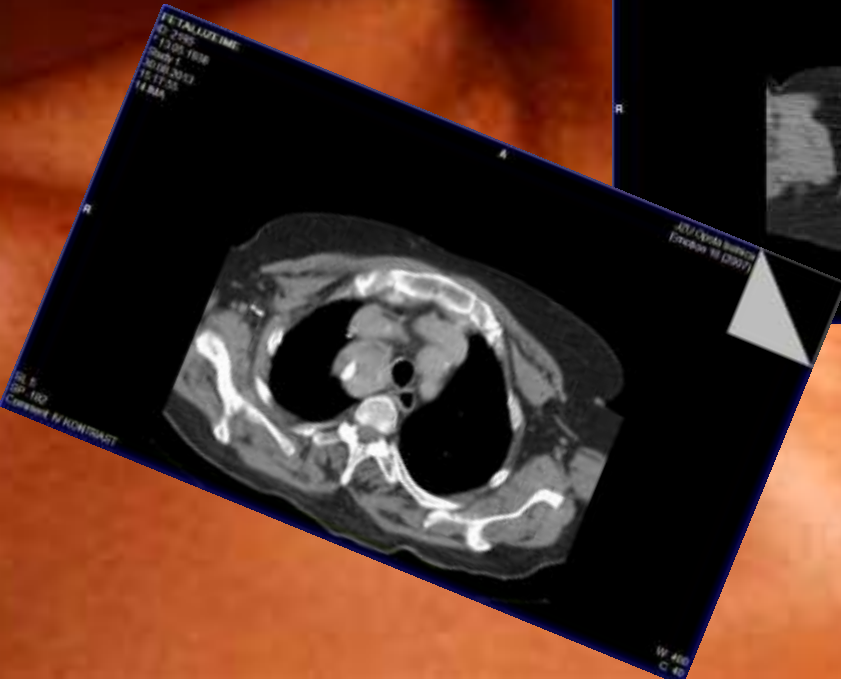
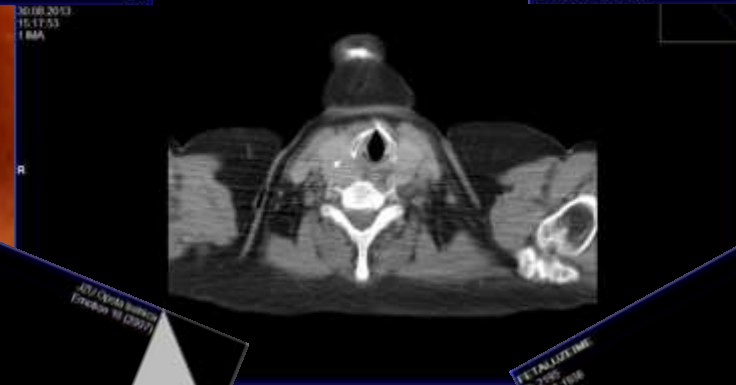
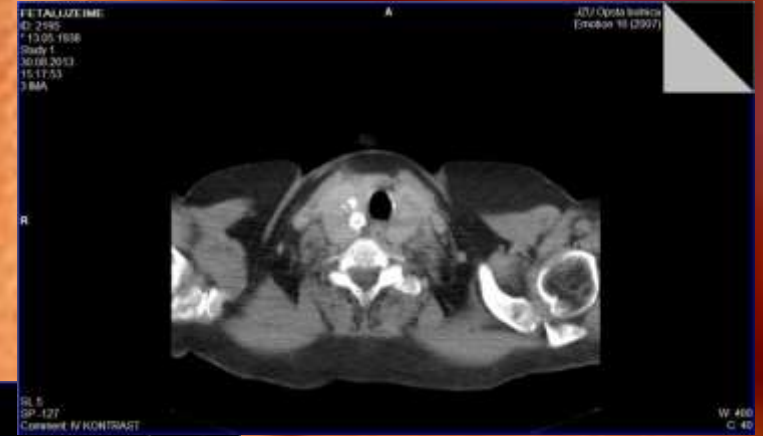
Material and methods

2011 and half of 2013 we made 5000 CT scan examinations(Simens CT),which 43 CT scans of neck organs and chest. CT scan obtained with the arms by the side are more accurate for determining substernal extent of goiter than when the arms are overhead, a position usually used in chest CT

Giant goiter with displacement of mediastinal organ



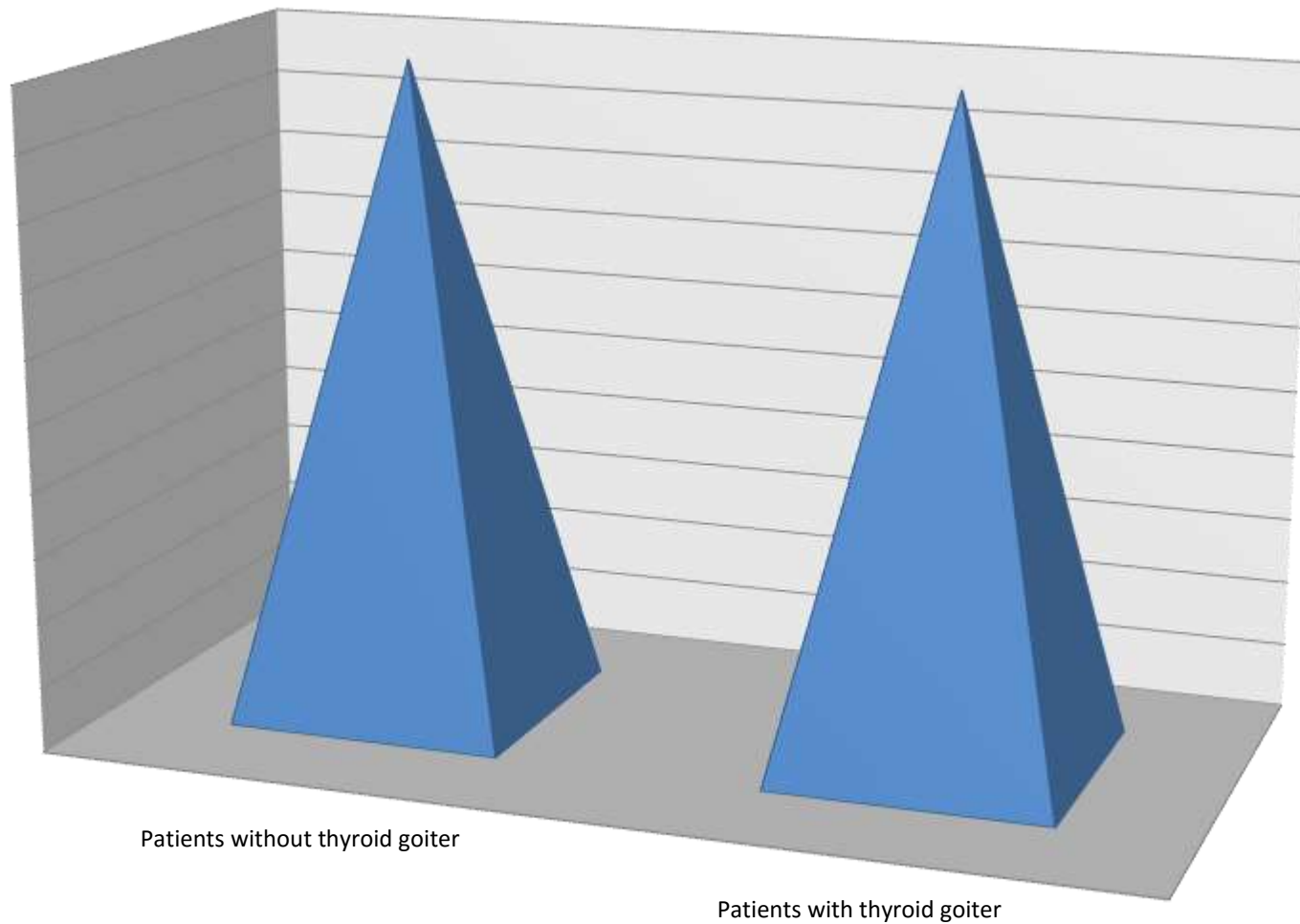
Retrosternal goiter with calcifications



Results

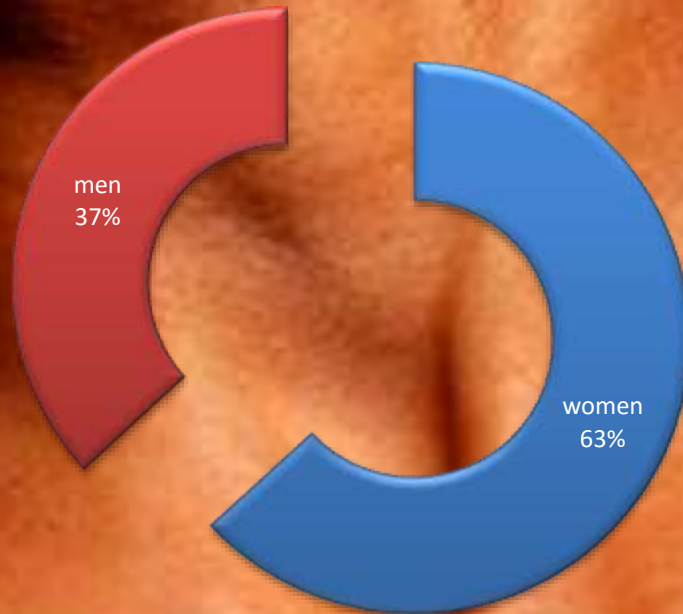
We found 19 thyroid goiters. (44.2%) 7 patients (36.8%) were men, 12 (63.2%) were women. 9 patients (47.36%) have retrosternal goitre.

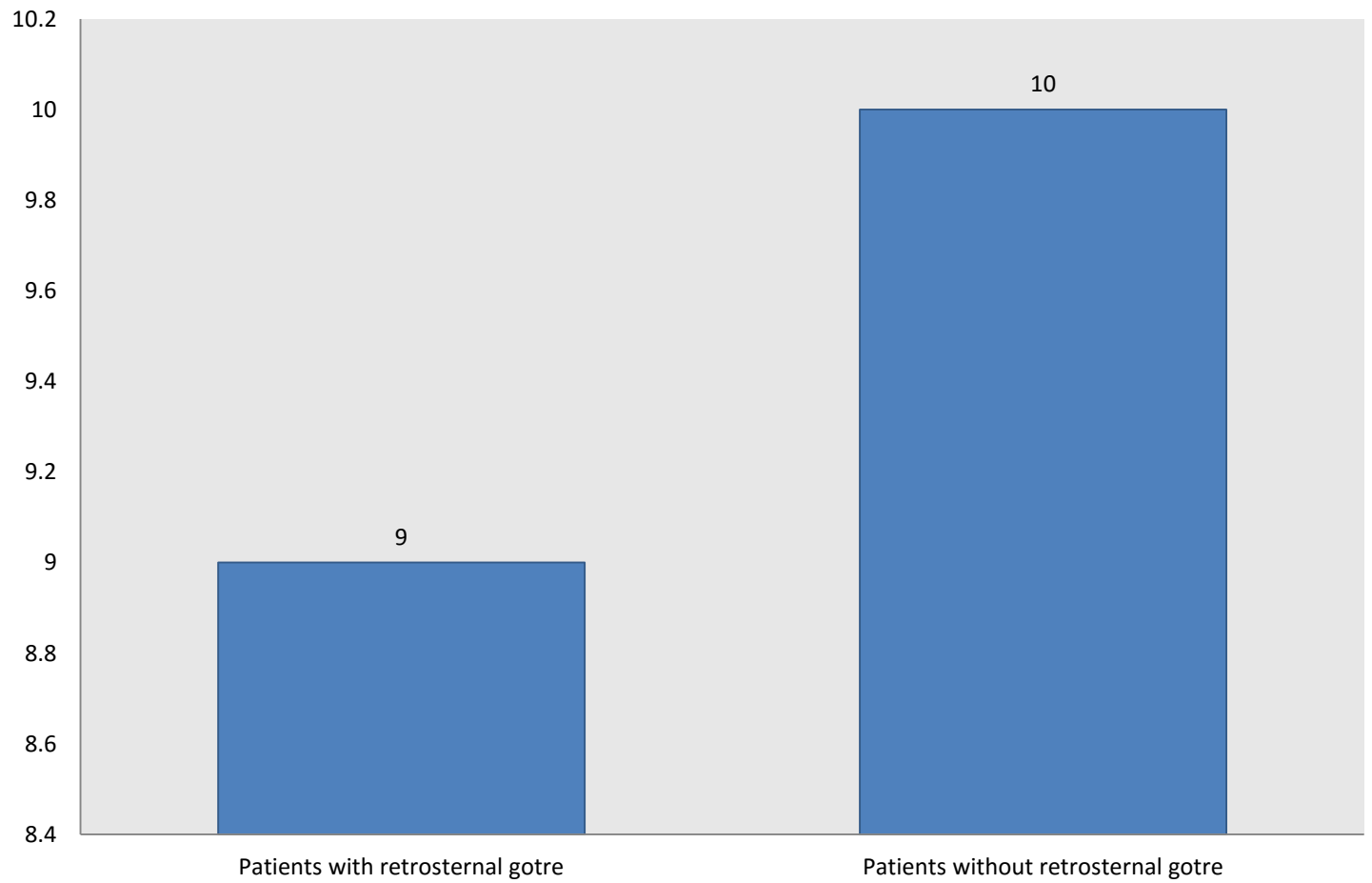
CT scans of neck organs and chest



	Patients without thyroid goiter	Patients with thyroid goiter
■ Series1	24	19

Sex of patients with thyrod goiters





Conclusion

Suspected retrosternal goitre should be investigated with CT scan to assess the degree of extension into the chest and to determine the extent and degree of tracheal (windpipe) narrowing and displacement. The radiologist provides an accurate account of the substernal extent of the mass and describes its impact on the trachea, esophagus, and vascular structures.