International Journal Dental and Medical Sciences Research
Volume 5, Issue 2, Mar - Apr 2023 pp 745-749 www.ijdmsrjournal.com ISSN: 2582-6018

Thyroid Pathology in Echography

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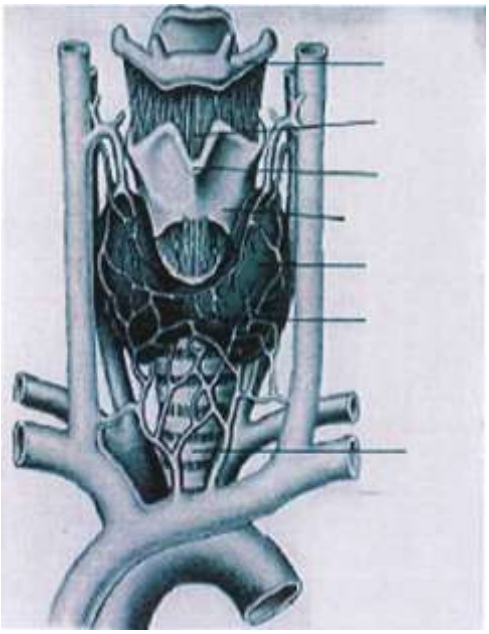
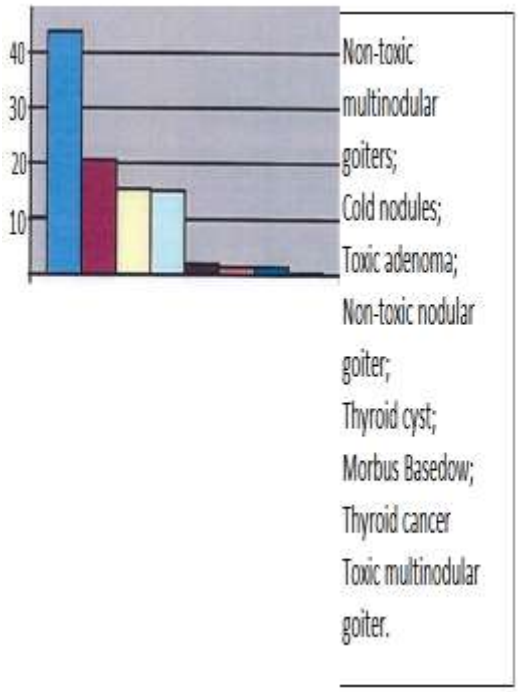
Date of Submission: 05-04-2023 Date of Acceptance: 15-04-2023



The problems that need to be solved in relation to the thyroid gland can be focused on:
1. Goitre
2. Thyroid cancer
3. Thyroid nodules
4. Hyperthyroidism
5. Hypothyroidism
6. Thyroiditis

In the time frame January 1990 - December 2001, it turns out that in the 1st QSUT General Surgery clinic, 1902 patients, women and men, were operated on. The study data regarding sex, age and distribution of thyroid pathology are given below;
• Patients operated on the thyroid gland: 1902
• Female 1638 (86.1%)
• Man 264 (13.9%)

Distribution of thyroid pathology
43.74% presented non-toxic multinodular goiters;
20.7% cold nodules;
15.3% toxic adenoma;
15.2% non-toxic nodular goiter;
2% thyroid cyst;
1.5% Morbus Basedow;
1.3% thyroid cancer
0.26% toxic multinodular goiter.



Man age distribution (264 people).

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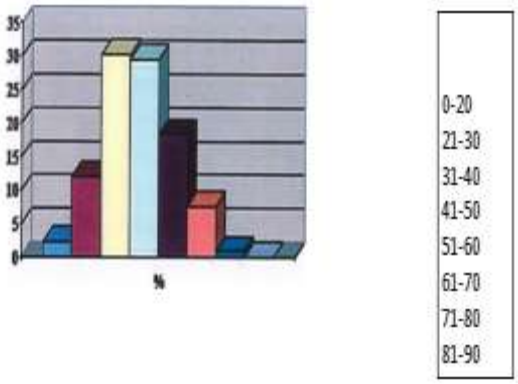
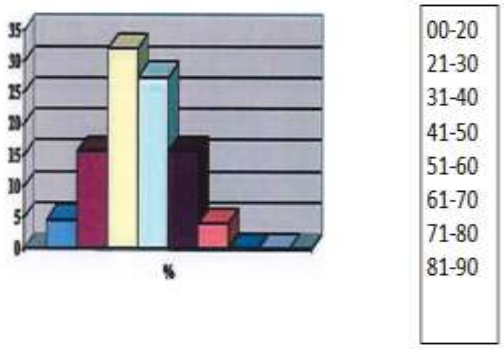


Woman age distribution (1638 people)



Wooman –Man touch ratio = 6.2-1

ECHOGRAPHIC EXMANATION.

If the doctor identifies the presence of nodules in the thyroid, the main goal in the diagnostic exploration should be focused on discovering the cause of the origin of the nodules, making a safe differential diagnosis of benign nodules from malignant nodules.

THYROID NODLES

BENIGN

- Multinodular struma, colloid adenoma
- Thyroiditis (Hashimoto's)
- Cysts (colloid, hemorrhagic)
- Follicular adenoma
- Macrofollicular adenoma
- Microfollicular adenoma
- Embryonic adenoma

MALIGNANT

- Papillary carcinoma
- Follicular carcinoma
- Medullary carcinoma
- Anaplastic carcinoma
- Primary thyroid lymphoma
- Metastases from breast and adrenal glands.

THYROID NODULES IN ECHOGRAPHIC ASSESSMENT.

Parameters that help in the differential diagnosis of nodules:

- Echogenicity of the nodule
- The structure of the nodule
- Contours of the nodule
- Peripheral area of the nodule
- Calcifications of the nodule

ISOECHOGEN NODUS

Ultrasound examination

Longitudinal section of the left lobe.

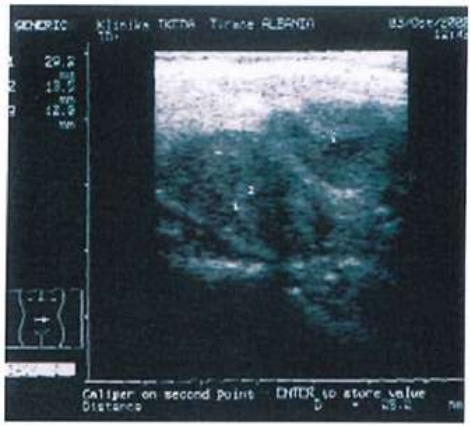
An isoechoic nodule surrounded by a thin hypoechoic annular zone is evident.

(Personal case)

HYPOECHOGENOUS NODUS

Of the right lobe.

2 hypoechoic nodules are evident.(Personal case)



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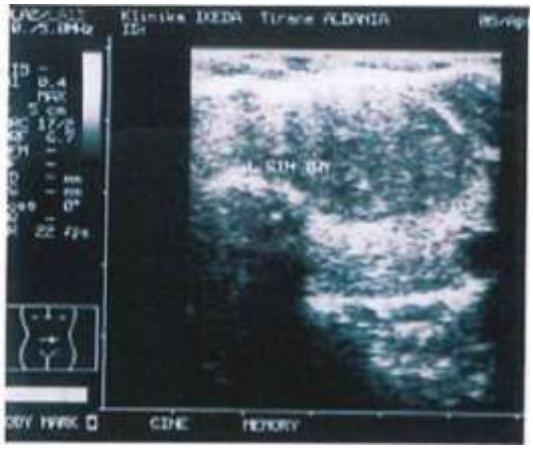
HYPERECOGENIC NODUS

Ultrasound examination. Longitudinal section of the left lobe. A hyperechogenic nodule is evident, which is surrounded by a thin annular area.
(Personal case)

If the nodule is hyperechogenic, the possibility of being malignant increases from 1 to 4% of cases.

The presence of calcifications

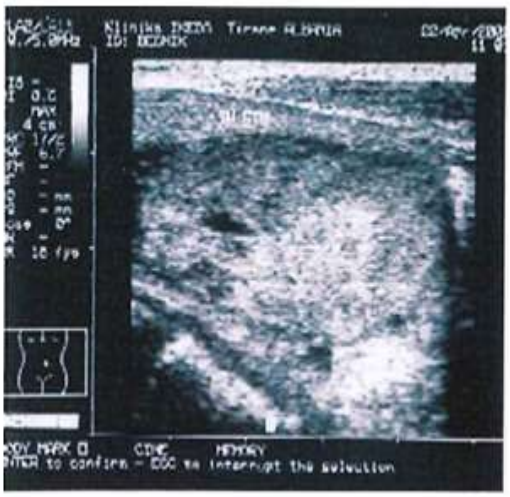
The presence of microcalcifications speaks in favor of malignant diseases in 98.2% of cases.



Contours of nodules

Benign nodules have clear contours and are surrounded by a hypoechoic annular area, these signs are found in 60-80% of benign nodules.

Ultrasound examination. Longitudinal section of the lobe to the left. Nodules are evident isoecogene that is surrounded by ring hypoechoic area thin . Benign nodules.(Personal case)



Ultrasound examination.
Longitudinal section of the left lobe.
Isoechoic nodules surrounded by a thin hypoechoic ring area are evident.
Benign nodules.
(Personal case)

The use of Doppler for the identification of the nodular peripheral ring area.

Echo-color-Doppler examination.
Longitudinal cut
An isoechoic nodule surrounded by a thin hypoechoic ring area is evident.
Perinodular vascularization.
(Personal case)

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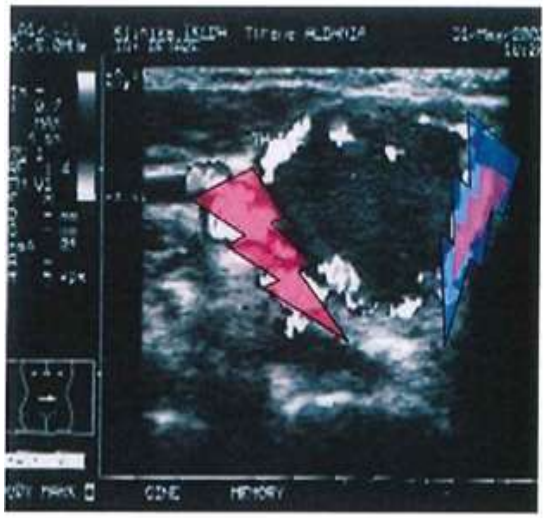
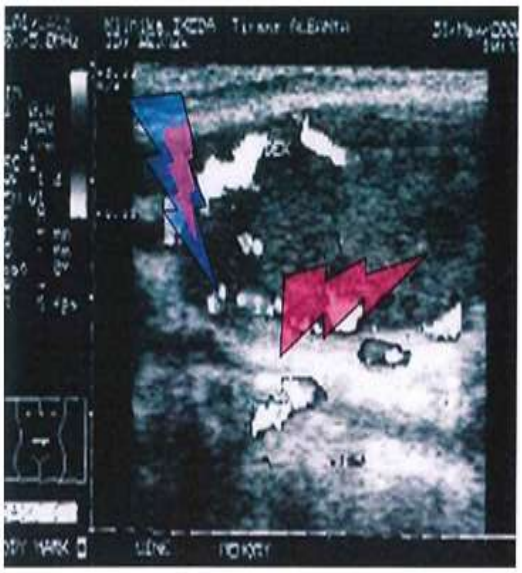
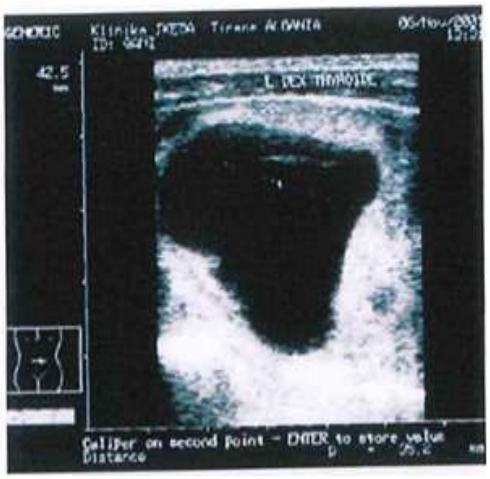


Echo-color-Doppler examination.
Longitudinal cut.
An isoechoic nodule surrounded by a thin hypoechoic ring area is evident.
Perinodular vascularization
(Personal case)



Ultrasound examination.
Longitudinal section of the right lobe
An isoechoic nodule with cystic degeneration of the nodule is evident
(Personal case)



Cystic formation surrounded by a hyper reflective annular area.
Zone "Hallo"-Echinococcus of the thyroid.
(Personal case)

After the test with positive sensitivity, the patient refused the surgical intervention.

The data of the echographic examination with Color-Doppler

Ultrasound examination.
Longitudinal lobe of the right lobe An isoechoic nodule with a thin hypoechoic perinodular annular zone is evident. Pretoxic nodule.
(Personal case)

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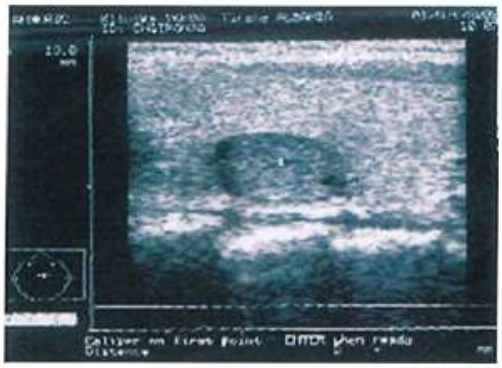
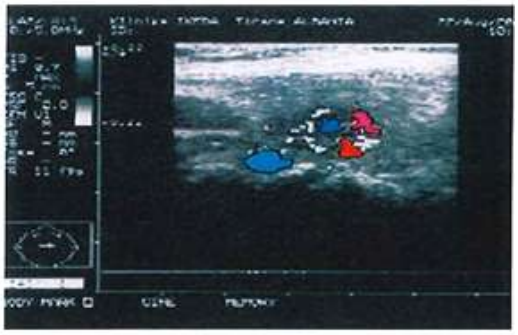
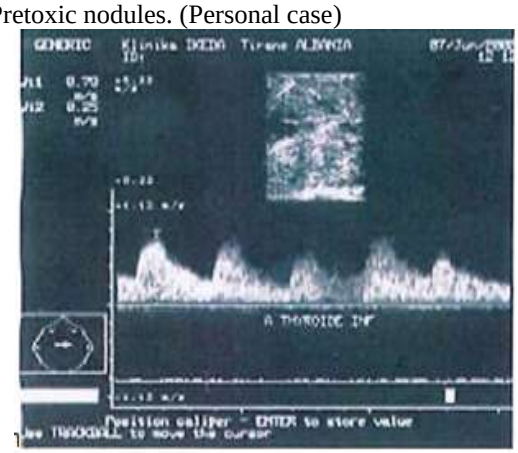


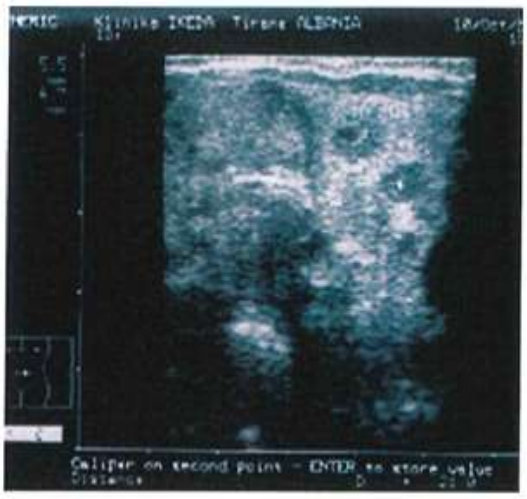
Color-Doppler examination.
Longitudinal section of the right lobe.
A nodule is evident.
Increased perinodular and intra nodular vascularization.
Pretoxic nodule.
(Personal case)



Color-Doppler examination
Velocity in the inferior thyroid artery 78 cm/s.
Pretoxic nodules. (Personal case)



Thyroid cancer
Ultrasound examination.
Transverse section.
In the isthmus, hyperechoic Delphian lymphnodule formation.
Hypoechoic formations are observed in the left lobe
(Personal case)



The same case. Enlarged lymph nodes with supraclavicular localization. (Personal case)

The same case. Thyroid cancer with metastases in supraclavicular lymphnodules. (Personal case.)