5. ULTRASONOGRAPHIC DIAGNOSIS OF THYROID NODULES

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Introduction. Thyroid nodules are very common in the general population, the diagnostic method is easily accessible with a high prevalence found in the ultrasound examination (US), ranging from 20% to 76% in the adult population.The specificity was 92.3% and 88.7% respectively . Differentiation of malignancy is an important clinical process, as malignancy occurs in 7-15% of detected thyroid nodules, depending on various risk factors. Various combinations of ultrasonographic (US) features are increasingly used to classify thyroid nodules. Ultrasonography is one of the most sensitive and widely used methods for detecting thyroid nodules .

Case statement. Ultrasonographic diagnosis of thyroid gland nodules will allow the early identification of both malignant and benign tumors of the thyroid gland.The study was carried out based on examinations of 20 patients. We studied the quality of ultrasonographic diagnosis in the detection of thyroid gland nodules and we evaluated the success of the ultrasonographic method in the diagnosis of thyroid gland nodules by comparing other methods, such as ultrasound, computed tomography (CT), magnetic resonance imaging (MRI), radiography.We have identified the factors that affect the results of the diagnosis of thyroid gland nodules, such as the size of the nodules, their location, the presence of visualization complications.

Discussions. Currently, real-time high-resolution US not only detects the presence, location, number and size of thyroid nodules, but also clearly shows the characteristics of thyroid nodules. Some authors have reported the ultrasound diagnosis of thyroid nodules of all types with relatively high sensitivity ranging from 74% to 81%, but no formulas based on feature analysis are available to predict malignancy. Therefore, we prospectively evaluated the US characteristics of thyroid nodules and analyzed the probability of malignancy based on multiple logistic regression analysis.

Conclusion. An ultrasonographic examination is a safe, non-invasive and rapid imaging technique: it is quite sensitive for detecting thyroid nodules of various sizes and identifying suspicious features and can be used to plan further investigations and management. Considering that the average prevalence of thyroid nodule malignancy is variable and ranges from 4.0% to 6.5%, accurate estimation of the risk of malignancy in the US could minimize the detection of advanced stage cancer.