

## 25. RELEVANCE OF COLOR DOPPLER EXAMINATION IN THE ASSESSMENT OF THYROID NODULES



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**Introduction.** The utilization of color Doppler examination facilitates the exploration of changes in the frequency of ultrasonic waves reflected by the bloodstream. This method is employed in assessing the vascularity of thyroid nodules.

**Aim of study.** The preoperative differential diagnosis between benign and malignant thyroid nodules is quite important for assessing the extent of the surgical intervention.

**Methods and materials.** The study included 124 patients with thyroid nodules examined ultrasonographically using color Doppler, ranging in age from 19 to 71 years. There were 20 male patients (16.13%) and 104 female patients (83.87%). Nodules were categorized as non-vascularized, with peripheral vascularization, intranodular vascularization, and mixed vascularization.

**Results.** As a result of color Doppler examination, thyroid nodules were detected with mixed vascularization in 53 patients (42.7%), peripheral vascularization in 30 patients (24.2%), intranodular vascularization in 24 patients (19.4%), and without vascularization in 17 patients (13.7%). In patients with malignant thyroid nodules confirmed by definitive histopathological examination, mixed vascularization was identified preoperatively.

**Conclusion.** Color Doppler examination is crucial in determining the malignancy of thyroid nodules. Mixed vascularization of thyroid nodules is characteristic of thyroid gland cancer.