

Preface

Thyroid disease is the second most common type of endocrine pathology, only surpassed in prevalence by diabetes mellitus. Thyroid abnormalities are found in 8–20% of adults worldwide. In the endemic regions, the prevalence of such abnormalities is thought to be higher and exceeds 50%. Thyroid malignancies constitute 1–3% of all cancers with an average incidence in the world of 1.1 in 100,000 men and 3.8 in 100,000 women in 2008. Among the population of radionuclide polluted regions, this figure reaches 14 in 100,000. Recent research reveals a trend toward an increased incidence of thyroid pathology, including thyroid cancer, practically in all regions of the globe.

The diagnosis of thyroid diseases has been constantly improving due to the scientific development and technological advances in diagnostic equipment. The diagnostic value of visualization of the thyroid gland is method-dependent. In this regard, proper selection of a diagnostic procedure permits precise diagnosis while minimizing the cost and reducing the time to diagnosis. Minimally invasive surgical intervention is a promising tool in the treatment of thyroid diseases. Its feature is selective manipulation of the thyroid lesions and concomitant avoidance of damage to the surrounding tissue. The use of US guidance during such procedure allows to assess the operation course, predict the efficacy, and provide patient follow-up.

In this book we presented and analyzed certain debatable and unresolved problems and prospects of early, specific, and differential diagnosis of thyroid disease with the use of complex US. Our findings are based on the literature data and our extensive experience. We conducted analysis of more than 100,000 US examinations with the pathology of the thyroid and parathyroid glands, performed during 1995–2008, as well as the results of over 5,000 diagnostic and 2,000 therapeutic US guided minimally invasive manipulations with correlation to surgical findings and morphological structure. This analysis allowed us to generate a weighted opinion regarding the current role and limitations of a sonographic study of the thyroid, which we present here.

Moscow

Yaroslavl

V.P. Kharchenko

P.M. Kotlyarov

M.S. Mogutov

Y.K. Alexandrov

A.N. Sencha

Y.N. Patrunov

D.V. Belyaev

Ultrasound Diagnostics of Thyroid Diseases

Kharchenko, V.P.; Kotlyarov, P.M.; Mogutov, M.S.;

Alexandrov, Y.K.; Sencha, A.N.; Patrunov, Y.N.; Belyaev,

D.V.

2010, XII, 244 p. 250 illus., 243 illus. in color.,

Hardcover

ISBN: 978-3-642-12386-3