A. Lupulescu and A. Petrovici Ultrastructure of the Thyroid Gland

Ultrstructure of the Thyroid Gland

A. Lupulescu, M.D.
Institute of Endocrinology, Bucharest (Rumania)

A. Petrovici, M.D.
'Dr. I. Cantacuzino' Institute, Bucharest (Rumania)

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Foreword

During recent years a considerable amount of material concerning the physiology and biochemistry of the thyroid gland has accumulated. However, the findings in this field cannot be fully understood without, a thorough knowledge of cellular phenomena. Any normal or pathological biochemical phenomenon that takes place within the cellular organelles sooner or later produces some side effect upon the structure and particularly upon the ultrastructure of the cell. Hence, a balanced approach between morbid cytology and morbid biochemistry is necessary.

This monograph hopes to be useful both to research workers and to other interested readers in the sphere of histology and pathology of the thyroid gland. Apart from a study of the ultrastructure of the normal thyroid and of changes occurring in different experimental conditions, several further chapters have been introduced, such as those on the ultrastructure of iodine-deficient thyroids and of the human thyroid gland, and autoradiography by light and electron microscopy. Similarly, the investigations include a study of the influence of certain drugs commonly used in the therapy of thyroid diseases, about whose action at infracellular level hardly anything is known.

An attempt has been made to correlate, as far as possible, the ultrastructural changes with the autoradiographic, the biochemical or the more recent radiochemical alterations.

Confronted with an ever-increasing and as yet partly contradictory mass of material, we feel that this volume brings new contributions to our understanding of the fascinating field of the biosynthesis of hormones.

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(Fig. 15) and 609 (Fig. 25) of the article on `Changes in Fine Structure and Acid Phosphatase Localization in Rat Thyroid Cells following Thyrotropin Administration' by B. WETZEL, S. SPICER and S. WOLLMAN.

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The authors