BOOK REVIEW

Monograph "Pituitary adenomas. Morphopathology and molecular profile"

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Pituitary gland volume structures are neighbourhood related with important brain assemblies (the internal carotid arteries, cranial nerves III, IV, V, cavernous sinuses, optic chiasm, hypothalamus, the third ventricle, etc.) causing severe and progressive changes by local compression. Now, one plausible explanation is the absence of a detailed description regarding their biological heterogeneity, able to highlight the molecular alterations, cellular composition and susceptibility to treatment.

Despite adenomas are a sort of benign pathological entities, they can convert severe, even life threatening by local invasion and compression or by metabolic and cardiovascular complications.

Pituitary adenomas molecular features, extremely necessary to identify factors that may affect prognosis and treatment are insufficiently studied. Except GH and PRL-secreting pituitary adenomas which have been extensively studied in molecular terms, other relatively rare types that show higher aggressiveness compared to previous ones, with adverse effects on the body endocrine profile have not been fully characterized.

Research direction exhibited by the author is an innovative and current. For these reasons, this paper reports the predictive study of molecular factors and probably the therapeutic approach depending on hormonal status of pituitary adenomas and determines correlations between different molecular factors for achieving molecular subgroups, which could then be used as prognostic and especially therapeutic markers. Nevertheless, this paper contains preliminary data obtained for factors such as VEGF165b fraction inhibiting VEGF that have not been studied in pituitary adenomas until now or less and sporadically such as EG VEGF.

The study is devided into five chapters with 325 references.

The **introductory** chapter highlights the importance of recent scientific study and practice medicine.

Chapter I **Anatomy and histology.** The author describes anatomical and histological data of the human pituitary structure through the new laboratory files.

Chapter II **Pituitary adenomas: histopathology and molecular profile: Controversy and certainties** contains classic histopathological examination competed later by immunohistochemical study of hormonal profile on paraffin processed specimens.

A key importance have Chapters III **Involvement of growth factors and correspondents receptors in pituitary adenomas pathology** and IV **Predictive factors for the diagnosis and therapy of pituitary adenomas**. These subdivisions of monograph allow radical change of treatment and follow up of patients diagnosed with pituitary adenoma. Customized treatment is one of the basic switches that can give dynamic favourable results.

In Chapter V **Epidemiological data of pituitary adenomas hormonal profile in Moldova compared with those in Romania.** It is the first analysis of the pituitary adenomas structure depending on geographical area, which would allow highlighting some environmental factors involved in the aetiology of these tumors.

Conclusions: "Pituitary adenomas. Pathology and molecular profile" proposed by Dr. Eugen Melnic is well-done and current study and should be printed as a monograph. The work is intended for resident doctors, specialists in pathology, neuropathology, neurology, neurosurgery, endocrinology, oncology and molecular biology.

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