

ORGAN-SPECIFIC ANTIBODIES IN IDIOPATHIC PANHYPOPITUITARISM, PRIMARY THYROID AND ADRENAL INSUFFICIENCY

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Abstract. Two hundred and forty-eight sera from patients with idiopathic panhypopituitarism, primary myxedema, idiopathic Addison's disease as well as matched controls have been investigated for the presence of circulating organ-specific antibodies.

Antibody against the secretory cells of the anterior pituitary could not be demonstrated by means of the technique used. In only one patient with pituitary failure was circulating antibody against thyroglobulin found, and neither microsomal thyroid antibody nor adrenal antibody could be detected in any case.

Based on these findings and a survey of the literature it is concluded that, in contrast to the findings in primary failure of the thyroid and the adrenals, the functional and anatomical alterations in these endocrine glands in hypopituitarism do not cause the formation of circulating organ antibodies.

Idiopathic panhypopituitarism (i.p.) i.e. pituitary insufficiency in which no cause can be demonstrated, and so-called Sheehan's syndrome may closely imitate primary myxedema and, although less frequently, Addison's disease.

Circulating antibodies against elements of the thyroid gland can be demonstrated in most sera from patients with primary myxedema (14, 15, 27, 28), and it has been suggested that primary myxedema is identical with or a variant of Hashimoto's thyroiditis (4, 8, 10). The occurrence of thyroid antibodies in various diseases of the thyroid gland has been studied by several investigators (10, 14, 15, 17, 20, 22, 25, 28). However, only one study comparing the occurrence of thyroid antibodies in primary and secondary myxedema has been published (31).

A number of papers on the occurrence of circulating antibody against the cytoplasm of adrenocortical cells in sera from patients with different types of primary adrenal insufficiency have appeared (1, 2, 6, 7, 23, 24), but no information on

the possible occurrence of adrenal antibodies in secondary adrenal insufficiency is available.

Recently the theory has been advanced that i. p. may be an autoimmune disorder (12, 19) and in 18% of a group of women in the post-partum period and in one case of so-called Sheehan's syndrome Engelberth and Ježková demonstrated organ-specific-like activity against the adenohypophysis (9). However Goudie (13), in a preliminary study, has so far been unable to confirm the existence of antibodies against the secretory cells of the anterior pituitary.

The purpose of this paper is to present the results of an investigation on the problem of whether or not the functional and anatomical changes in the thyroid and adrenal glands as seen in pituitary insufficiency may be correlated to the existence of organ antibodies. An attempt was made to demonstrate circulating antibodies against the secretory cells of the anterior pituitary in sera from patients with i. p. using an indirect immunofluorescence technique.

MATERIAL

Sera from a total of 248 individuals were examined. In 16 a diagnosis of i. p. was considered certain, since no cause of the disorder could be demonstrated. Five out of nine female patients were diagnosed as having Sheehan's syndrome.

All patients presented the classical symptoms and signs of pituitary insufficiency. In all of them the excretion of pituitary gonadotropins and corticosteroids (17-KGS) were low, as was the level of se-PBI (except in one case in whom iodine contamination was obviously present). In most patients the diagnosis was supported by additional investigations such as stimulation tests with thyrotropic and adrenocorticotrophic hormones, and measurement of plasma cortisol concentration.

In addition sera from 60 patients with primary myxedema and 48 patients with idiopathic Addison's disease were examined.

