



Dear Colleagues and Readers,

The long-awaited summer holidays are just around the corner and the frantic period of scientific conferences held in the springtime in Poland and abroad is finally over. Before you break for the summer, however, I would like to encourage you to read the latest issue of the "Polish Journal of Endocrinology" you are holding in your hands.

The *Original papers* section commences with the paper authored by doctors from the Department of Endocrinology and Diabetes in Bydgoszcz, who presented an evaluation of carbohydrate metabolism in acromegalic patients hospitalised between 2001 and 2009 at their Department. The authors demonstrated that the incidence of type 2 diabetes mellitus in the group of 70 acromegalic patients was 3 to 4 times higher than that in the general population and increases with age, especially after 60.

The second paper, authored by surgeons from the Silesian Medical University, discusses the Department's experience in managing patients with secondary and tertiary hyperparathyroidism referred for surgical treatment and provides an assessment of direct outcomes of the treatment.

The third original paper concerns the role of glucose transporter 4 (GLUT4), which is a representative of the family of integral membrane proteins that transport glucose into the cells by means of facilitated diffusion. Overexpression of the GLUT4 protein was previously demonstrated on the surface of leukocytes in diabetic patients only. The authors from the Medical University of Warsaw demonstrated GLUT4 overexpression in patients with a family history of type 2 diabetes, which suggests the existence of abnormalities in glucose transport into the cells already in the prehyperglycaemic phase. It therefore seems that determination of GLUT4 expression in high-risk patients may be a valuable test in early detection of diabetes.

Karadurmus et al. of Gulhane Military Medical Academy in Ankara, Turkey, report on their study of 28 patients with type 2 diabetes mellitus complicated

by diabetic foot. The study evaluated the effect of hyperbaric oxygen therapy (HBOT) on glycaemic control, selected lipid parameters and inflammatory markers. The authors demonstrated a beneficial effect of HBOT on lipid metabolism, glycaemic control and reduction in hsCRP following the treatment.

Among the original papers you will also find a report of authors from Silesia on the effects of ACE inhibitors on plasma adipokine levels in normotensive patients with coronary artery disease. Based on the results of their study, the authors conclude that the type of the drug may significantly affect the function of the adipose tissue in terms of release of certain hormones.

In another study reported here, Iranian authors investigated a population of over 2000 schoolchildren and detected goitre in as much as 33% of them. They attempted to define other factors contributing to this finding, in addition to iodine deficiency, with zinc deficiency being one such factor. The hypothesis was not, however, confirmed: the authors failed to demonstrate that zinc deficiency affected the occurrence of goitre in the Isfahan area.

This issue of *The Polish Journal of Endocrinology* we also present two related *Review papers* which report on the progress in studies investigating glucose transport into the cells in the aspect of the pathophysiology of insulin resistance and type 2 diabetes mellitus.

The worldwide epidemic of type 2 diabetes mellitus results from two main groups of causative factors with the first one being the negative effects of civilisation. About 30 percent of the global population is estimated to be genetically predisposed for the development of type 2 diabetes mellitus as a result of extrinsic factors. This is related to cellular and organ resistance to insulin. The other group of factors is associated with pancreatic beta-cell dysfunction.

In the *Case reports* section, authors from Warsaw share their experience related to the diagnostic difficulties they encountered in a female patient with persistent Cushing's disease.

The team of authors from Wroclaw reports on multiple pituitary hormone deficiency in a patient with the rare Hitayat-Hall syndrome.

Another paper, authored by our colleagues from Krakow, describes patients with neuroendocrine tumours in very rare locations and share their experience related to the management of such tumours.

The paper presented in the *Postgraduate education* section and entitled "Everyone can perform an ultrasound of the thyroid: some can do it better, the others do

it worse..." authored by doctors from Poznan, is a comprehensive review based on the author's own experience supported by the latest literature and ample graphical documentation of the examination techniques and interpretation of the sonographic picture of the thyroid.

We hope you will find this issue of the "Polish Journal of Endocrinology" helpful and refer to it even during the holidays. We wish you a lot of rest and pleasant memories from this year's summer break.

On behalf of the Editors

Beata Kos-Kudła