

## SELECTED RISK FACTORS CONCERNING OCULAR COMPLICATIONS IN PATIENTS WITH TYPE 1 DIABETES OF UP TO 10 YEARS' DURATION IN THE PROVINCE OF WARMIA AND MAZURY

**Janusz Pieczyński<sup>1</sup>, Elżbieta Bandurska-Stankiewicz<sup>2</sup>, Wojciech Matuszewski<sup>2</sup>,  
Joanna Rutkowska<sup>2</sup>, Dorota Wiatr-Bykowska<sup>2</sup>**

<sup>1</sup> *Department of Ophthalmology, Provincial Specialist Hospital in Olsztyn*

<sup>2</sup> *Chair and Department of Endocrinology, Diabetology and Internal Medicine, University of Warmia and Mazury in Olsztyn*

**Introduction.** Close monitoring and the employment of appropriate treatment for retinopathy is possible when its risk factors are determined. Appropriate treatment for retinopathy contributes to limiting blindness in patients with diabetes mellitus and ensures the best possible quality of life for them.

**Aim.** To evaluate risk factors concerning ocular complications of diabetes in patients with type 1 diabetes of up to 10 years' duration in the Province of Warmia and Mazury.

**Materials and methods.** In total 143 patients with type 1 diabetes of up to 10 years' duration, remaining under the care of the Provincial Diabetology Outpatient Clinic at the Provincial Specialist Hospital in Olsztyn and the Provincial Diabetology Outpatient Clinic for Children and Youth at the Provincial Specialist Children's Hospital in Olsztyn were qualified for the final examination. All patients underwent interviews and ophthalmic examinations. During the ophthalmic examinations the following parameters were evaluated: visual acuity, intraocular pressure, eye globe protection apparatus, and anterior and posterior segments of the eye. On the basis of the questionnaire, the following data concerning metabolic stabilization of diabetes were collected: HBA1c index, BMI, arterial blood pressure, microalbuminuria/proteinuria, triglycerides, total cholesterol, LDL and HDL cholesterol. Diabetes duration was determined as well as the age when diabetes was diagnosed in relation to puberty.

**Results.** In the study group there were 23 patients (42 eyes) presenting ocular complications, with an average duration of diabetes of 6.9 years. The average age when patients developed diabetes was 16.8 years. Logistic regression analysis indicated in the study group a correlation between the development of ocular complications and diabetes duration as well as the age when diabetes developed. No correlation between the development of ocular complications and metabolic control was found.

**Conclusions.** Risk factors contributing to the development of ocular complications of diabetes in the studied population include: disease duration, age when the disease developed and diagnosing diabetes after puberty ( $\geq 13$  years old).