



79<sup>th</sup>



International  
Scientific  
Conference of  
the University  
of Latvia

# The effect of the degree of compensation for type 2 diabetes on visual acuity and central retinal thickness in patients after cataract surgery

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# Summary

*Background.* The incidence of type 2 diabetes has increased worldwide. Preoperative glycaemic control in diabetic patients remains a controversial issue among surgeons, including ophthalmologists.

*Aim.* The objective of the current study was to evaluate the effect of the degree of compensation for type 2 diabetes on visual acuity and central retinal thickness in patients after cataract surgery.

*Methods.* 60 patients were enrolled in the study (30 patients were diagnosed with type 2 diabetes). Glycated haemoglobin (HbA1c) was previously detected in diabetic patients. Patients were evaluated and compared for best corrected visual acuity (BVCA) and central retinal thickness (CRT) before and after cataract surgery.

# Summary

Results. The mean age was 73.92 years  $\pm$  6.73. A statistically significant increase in CRT was observed in both groups at week 4 postoperatively ( $p < 0.001$ ). A statistically significant improvement in visual acuity was observed in both groups. ( $p < 0.001$ ). There were no statistically significant differences between the control and study groups in both visual acuity (preoperatively ( $p = 0.376$ ) and postoperatively ( $p = 0.524$ )) and CRT (preoperatively ( $p = 0.415$ ), postoperatively ( $p = 0.105$ )). The Correlations between HbA1c and preoperative CTB ( $R = -0.079$ ;  $p = 0.680$ ) and postoperative CRT ( $R = -0.102$ ;  $p = 0.591$ ) were not statistically significant. The correlation between HbA1c and best corrected visual acuity was not statistically significant both preoperatively ( $R = 0.040$ ;  $p = 0.833$ ) and postoperatively ( $R = 0.109$ ;  $p = 0.567$ ).

# Conclusion

After surgery, patients with type 2 diabetes have improved visual acuity and changed CRT almost as much as patients without diabetes. HbA1c does not affect the postoperative outcome of cataracts, which means that elevated HbA1c levels are not a contraindication to cataract surgery.