SD-OCT is an important tool in the diagnosis of macular oedema (ME) due to retinal vein occlusion (RVO). Its high resolution makes it possible to distinguish various morphological characteristics and differences. The aim of this study is to evaluate the correlation between morphological patterns and the development of visual acuity (VA) after intravitreal treatment of ME due to RVO.

81 patients on intravitreal treatment (dexamethasone: n = 53/ranibizumab: n = 28) due to ME associated with branch and central retinal vein occlusion (n = 38/CRVO: n = 43) were retrospectively reviewed. Preoperative SD-OCT images were analysed by vitreous adhesion, epiretinal membranes, foveal contour, height of intraretinal cystoid spaces, inner and outer segment integrity and presence of subretinal fluid. The influence of these patterns on VA improvement was analysed.

In almost every morphological pattern, the data were highly variable. Therapy was effective, with a medium gain in VA of 9.51 letters ETDRS (dexamethasone: 9.62 letters/ranibizumab: 9.29 letters). The improvement in VA in patients with small intraretinal cystoid spaces (thickness \( \leq 250 \mu m \)) was 19.44 letters ETDRS, compared to 7.23 letters ETDRS in patients with confluent cystoid spaces (\( p = 0.009 \)). Patients with a convex fovea exhibited more pronounced reduction in central vision.
retinal thickness (CRT) ($p = 0.004$). Analysis of OCT has concentrated on demonstrating oedema and CRT. Our data indicate that detailed OCT morphology and the size of intraretinal cystoid spaces offer important information about VA prognosis after intravitreal therapy in ME due to RVO.