Purpose: To report a clinical controversy in a nanophthalmic patient.

Methods: Case report.

Results: A 28-year-old male patient under topical medication for glaucoma secondary to nanophthalmus presented with blurred vision in his left eye. Distant visual acuities (DVA) were 20/70 with +16.75-0.75X155\° OD, and 20/2000 with +18.00-2.25X10\° OS. Axial lengths were 15.16mm (OD) and 14.80mm (OS). Patient had undergone bilateral YAG laser iridotomies 2 years previously and intraocular pressures (IOP) were normal. Fundus examination revealed crowded discs and macular folds in both eyes. Increased retinal vessel tortuosity, venous dilation, disc edema with peripapillary hemorrhages as well as intraretinal hemorrhages temporal to the macula was observed in the left eye. FFA and electroretinography supported clinical diagnosis of central retinal vein occlusion (CRVO). B-scan ultrasonography showed bilateral thickened sclera. OCT demonstrated bilateral macular folds plus macular edema in the left eye. Patient was treated with topical and systemic steroids as well as systemic carbonic anhydrase inhibitors; intravitreal injections were not considered to avoid high risk of complications. DVA increased to 20/200, hemorrhages were resorbed and disc margins became clear. However in the following weeks patient complained of visual fluctuations; localized exudative retinal detachment was observed in inferior peripheral retina.

Conclusion: A long-standing compression of the central retinal vein against lamina cribrosa as well as increased IOP has been identified as risk factors for CRVO. However, nanophthalmus and CRVO association has not been reported previously. Choroidal effusion and early CRVO may exhibit a diagnostic challenge in nanophthalmus; therefore CRVO should also be kept in mind in differential diagnosis.