Background: The ganglion cell complex (GCC) is a structural measure of tissue thickness located on the central 10° of the posterior pole (figure 1). It is available on the RTVue-100 optical coherence tomography (OCT; Optovue, Fremont, CA, USA). Its usefulness in glaucoma patients is under debate.

Purpose: To correlate GCC parameters with structural measures of the optic disk (ONH) and the retinal nerve fiber layer (RNFL) as evaluated by OCT and to ascertain their utility as a structural biomarker in glaucoma.

Methods: This retrospective study comprised patients with glaucoma and glaucoma suspects who underwent OCT examination with the RTVue-100 (A4, 0, 5, 46). GCC parameters were correlated with structural measurements of the ONH and the RNFL using the Pearson product correlation coefficient.

Results: The sample comprised 74 eyes of 37 patients. All correlations between GCC parameters and the RNFL measures were significant ($P<0.0001$; table 1). As to the correlation between GCC and the ONH measures, all but 3 were statistically significant (FLV and cup volume, GFLV and cup volume, and GLV and cup area) (table 2).

Conclusion: GCC parameters as measured by OCT can be used as structural measures of glaucomatous optic neuropathy or as biomarker in glaucoma.