The aim of this study was to evaluate blink rate (BR), tear tests and corneal parameters by Scheimpflug imaging and also to clarify the associations between the severity of disease and corneal parameters in patients with Parkinson's disease (PD). Forty patients with PD and 40 healthy subjects were included in this study. All participants underwent a detailed neurological and ophthalmological evaluation. The severity of disease was measured according to Hoehn-Yahr (H-Y) scale. BR was determined for participants. Corneal parameters were measured using Pentacam. Additionally, Schirmer test, tear break-up time (TBUT), corneal fluorescein staining, and Ocular Surface Disease Index (OSDI) scores were assessed. Corneal parameters were significantly different between the patients with PD and healthy controls. The mean central corneal thickness (538.95 ± 30.9 µm versus 557.60 ± 26.6 µm, p = 0.005) was significantly reduced in patients with PD compared to healthy controls. The BR and the values of TBUT and Schirmer test scores were significantly lower in patients with PD than in controls. Also, corneal fluorescein staining and OSDI scores were higher in patients with PD than in controls. The BR was significantly negative correlated with the severity of the disease. Factors related to the corneal thickness were BR, TBUT and Schirmer test (p < 0.05 for all). Corneal thickness may decrease in patients with PD which may be affected by reduced BR and tear dysfunction.