

R1 R2 R3 PG0 PG1 Estagiário Tecnólogo
PIBIC Last Name - Pereira First Name - Graziela Middle - Campanelli

Service (sector) Ocular Ultrasound N° CEP

OCULAR BIOMETRY, REFRACTIVE ERROR AND RELATIONSHIP WITH BODY HEIGHT, AGE, GENDER AND YEARS OF FORMAL EDUCATION IN BRAZILIAN ADULTS

Pereira G C, Allemann N **ABSTRACT PURPOSE:** To determine the ocular dimensions and the refractive error in adult patients and assess possible correlation with height, age, gender and years of formal education.

MATERIAL AND METHODS: Fulfilling the inclusion criteria, 173 participants were recruited from the Secondary Reference Centre in Ophthalmology (CERESO). Measurements were undertaken in the following order:

keratometry, tonometry, autorefractometry, subjective refraction, biomicroscopy, measurement of body height, A-scan biometry, cycloplegic refraction and indirect ophthalmoscopy. **RESULTS:** According to a regression model, a

person 10 cm taller would have the following measurements: axial length 0.32 mm longer, anterior chamber depth 0.07 mm deeper, vitreous chamber 0.26 mm deeper. With regards to age, a person 10 years older was more likely to have

the anterior chamber depth 0.15 mm shallower, for a lens 0.25 mm thicker, vitreous chamber 0.21 mm shallower and the spherical equivalent 0.19 D more positive. With regards to education, a person with additional 10 years of

formal education can be expected to present spherical equivalent 0.56 D more negative. **CONCLUSIONS:** This study suggests that, in adults: taller persons were more likely to have longer ocular axial length, deeper anterior

chamber, longer vitreous chamber depth and flatter keratometry values; older persons tended to have shallower anterior chamber depth, thicker lens, shallower vitreous chamber depth and more positive refraction spherical

equivalent; and persons with more years of formal education could be expected to present more negative refractive spherical equivalent.