

R1 R2 R3 PG0 PG1 Estagiário Tecnólogo PIBIC

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To determine the density of endothelium cells of donated corneas by a computerized method.

Methods: The method consists of capturing an endothelium image from the “in vitro” cornea for analysis by software. The endothelium image travels through an optical system (lenses, prisms and pinhole attached to a beam splitter) attached to the slit lamp and reaches a CCD camera. The image signal is displayed in a PC monitor via a frame grabber (captured and digitalized). Hence, the software determines the cell density of the endothelium.

Results- For good quality images the discrepancy is 4.1% and for poor quality images the discrepancy is about 16.08%. The software allows the examiner to add or remove cell, which eventually have not or have been counted respectively.

Conclusions: This system allows analysis of several parts of the cornea. Only “in vitro” corneas are used. Measurements in corneas have been done and the results are in agreement with the interactive counting method system.