

Impact of Glaucoma Surgery on Corneal Endothelium

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Abstract : A total of 66 articles were reviewed to compare glaucoma and its associated surgeries' effect on central corneal endothelium cell density (CECD). The paper reports the average reported central CECD loss at 3-, 6-, 12-, 24-, 36-, 48-, and 60-month post-operation for each glaucoma surgery. ALT, MLT, SLT, CS AGV, VC BGI, Hydrus + phaco, XEN gel + phaco, PRESERFLO, Dual iStent, or Trabectome had no significant impact on postoperative CECD compared to either preoperative CECD or control group CECD. The highest CECD loss was found to be EXPRESS-phaco, AC AGV, CS BGI, CS BGI, AC BGI, and AC BGI at the 3-, 6-, 12-, 24-, 36-, 48-, and 60-month follow-ups, respectively. AC AGV, Trab + MMC, Trab, AC BGI, Trab + MMC, Cypass, and Cypass showed the smallest reduction of CECD at the 3-, 6-, 12-, 24-, 36-, 48-, and 60-month follow-ups.

Keywords : glaucoma, corneal endothelium, cell density, surgery outcome

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