

## Perbandingan Fakoemulsifikasi Parameter High dan Low terhadap Keamanan dan Kenyamanan Pasien = Comparison High and Low Parameter Phacoemulsification in Safety and Patient's Comfort

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### Abstrak

Latar Belakang: Sel endotel kornea (SEK) paling mudah mengalami kerusakan pasca fakoemulsifikasi (fako). Pengaturan parameter fako menjadi salah satu cara untuk mengurangi kerusakan SEK. Tekanan intraokular (TIO) selama fako berlangsung mempengaruhi kenyamanan pasien. TIO dipengaruhi oleh pengaturan parameter fako.

Tujuan: Membandingkan pengaturan fako dengan parameter high (H) dan low (L) di Rumah Sakit Cipto Mangunkusumo (RSCM) terhadap SEK dan persepsi nyeri pasien selama fako.

Desain: Uji klinis randomisasi tersamar ganda.

Hasil: 48 sampel untuk kedua kelompok fako parameter high dan low terkumpul selama periode November 2013-April 2014. Penilaian objektif SEK meliputi endothel cell density (ECD) dan central corneal thickness (CCT). Persepsi nyeri untuk menilai persepsi nyeri pasien digunakan kartu visual analog scale (VAS) yang telah menjadi standar JCI di RSCM. Terjadi peningkatan CCT dan penurunan ECD kedua kelompok parameter pasca fako 1 bulan, masing-masing 0.23VS2.23 dan 8.53VS6.99 ( $p>0.05$ ). Tidak ada perbedaan signifikan pada VAS kedua parameter. Efikasi fako berdasarkan penilaian cumulative dissipated energy (CDE) kelompok H lebih baik daripada L (15.80VS21.29).

Kesimpulan: Tidak ada perbedaan keamanan dan kenyamanan pasien fako parameter H dan L.

.....Background: Corneal endothelial cell (CEC) prone to damage after phacoemulsification (phaco). Phaco parameter setting is an effort to reduce damage to the CEC. Patient's comfort during phaco is influenced by IOP during phaco, in which are influenced by parameter settings.

Purpose: To compare phaco setting parameters from high (H) and low (L) parameters in Cipto Mangunkusumo (CM) hospitals impacted on CEC and patient's pain perception (PP) during phaco procedure.

Study design: randomized control trial double blind.

Results: 48 outpatients were elegibly selected by RCT at CM hospital in periods of November 2013 ? April 2014. Impact of setting parameter difference were observed by objective measurement of endothel cell density (ECD), central corneal thickness (CCT). For PP a JCI approved standard using visual analog scale (VAS) were adapted. A built in software for phaco US energy count which is cumulative dissipated energy (CDE) used to objectively timed the phaco time, duration of operation (DO) were timed, and standard visual acuity (VA) was also noted. Analisis data using general linear model (GLM) repeated measures. Increase of CCT and decrease of ECD after 1 month in high and low phaco parameter are not significantly difference, respectively 0.23VS2.23 and 8.53VS6.99 ( $p>0.05$ ).Significant difference were found in CDE between H and L; 15.80VS21.29 ( $p0.015$ ).No statisticaly significant difference of VAS nor DO and VA.

Conslusion: No different in safety and patient's comfort using high and low parameter phaco.