

Normal values of Standard Full Field Electroretinography in Indonesian Adults Using Dencott Electrode in Cipto Mangunkusumo Hospital

Syntia Nusanti, Theresia Yinsi Pistari Gondosari, Muhamad Sidik
Neurophthalmology Division, Department of Ophthalmology
Faculty of Medicine, Universitas Indonesia

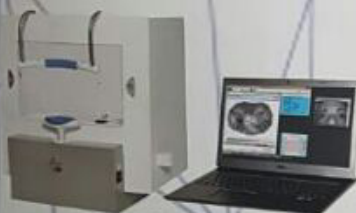


FAKULTAS

KEDOKTERAN

Purpose

To establish normal values of standard full-field electroretinography (ERG) in Indonesian adults using Dencott electrode with Metrovision Electroretinogram



ERG Machine



Dencott Electrode

Methods

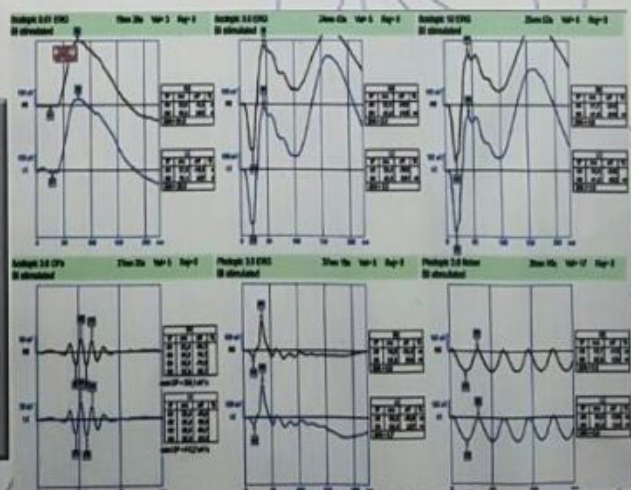
Fifty eight normal eye from Indonesian subjects with age between 19 and 49 years old were selected. ERG amplitudes and implicit time values were measured according to recommendations by the International Society for Clinical Electrophysiology of Vision (ISCEV). Evaluations consisted of scotopic 0.01 ERG (rod response), scotopic 3.0 ERG (rodcone response), scotopic 3.0 Oscillatory potential ERG and photopic 3.0 flicker (cone response) 3.0 flicker.



Patient during the ERG examination

Results

Mean scotopic 0.01 b-wave amplitude was $285 \pm 76 \mu\text{V}$ and b-wave implicit time was $77 \pm 7 \text{ ms}$. Mean scotopic 3.0 a-wave amplitude was $-285 \pm 55 \mu\text{V}$, a-wave implicit time was $24 \pm 1 \text{ ms}$, b-wave amplitude was $297 \pm 133 \mu\text{V}$ and b-wave implicit time was $46 \pm 3 \text{ ms}$. Mean scotopic 3.0 OP-wave sum amplitude was $343 \pm 124 \mu\text{V}$ and OP1-wave implicit time was $21 \pm 1 \text{ ms}$. Mean photopic 3.0 flicker b-wave amplitude was $46 \pm 41 \mu\text{V}$ and b-wave implicit time was $29 \pm 2 \text{ ms}$.



The result of Full Field ERG

Conclusions

Our results may serve as a reference for normal values of standard full field electroretinography in Indonesian adults' population using Dencott electrode.