

# Evaluasi ketebalan lapisan serabut saraf retina peripapil dan lapisan sel ganglion makula sebagai faktor diagnostik primary angle closure dan primary angle closure glaucoma = Role of peripapillary retinal nerve fiber layer and ganglion cell inner plexiform layer thickness as diagnostic factors in primary angle closure and primary angle closure glaucoma

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## Abstrak

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Latar belakang Glaukoma masih merupakan salah satu penyebab kebutaan terbesar di dunia. Belakangan ini, ketebalan RFNL dan GCIPL diketahui memiliki hubungan terhadap perubahan struktural yang disebabkan oleh glaukoma.

Tujuan untuk mengkaji kemampuan diagnostik dari pengukuran ketebalan RFNL dan GCIPL dalam mendeteksi glaukoma pada tahap awal.

Metode Enam puluh empat mata dengan sudut bilik mata sempit (32 glaukoma, 32 non-glaukoma) dari 48 pasien menjalani pengukuran menggunakan Cirrus OCT dengan protokol 3,4 mm pemindaian cepat RFNL peripapilar. Pengukuran dilakukan pada sisi superior, inferior, nasal, temporal dari GCIPL dan RFNL, begitu juga dengan GCIPL superotemporal, superonasal, inferotemporal, inferonasal, dan minimal.

Hasil Semua parameter yang diuji pada studi ini menunjukkan angka yang lebih rendah pada kelompok PACG dibandingkan kelompok PAC. Rerata ketebalan RFNL dan ketebalan GCIPL inferotemporal masing-masing memiliki nilai spesifitas dan sensitifitas yang paling baik. Parameter dengan determinan terbaik adalah ketebalan GCIPL inferotemporal dengan sensitifitas dan spesifitas masing-masing

75%

dan

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## Kesimpulan

Ketebalan GCIPL dan RFNL peripapil memiliki potensi besar sebagai parameter diagnostik seperti skrining dan evaluasi respon terapi.

**ABSTRACT**  
Background Glaucoma remains one of the biggest causes of blindness worldwide. Recently, RFNL and GCIPL thickness were shown to be correlated

with early structural changes caused by glaucoma.

Objective to evaluate the diagnostic performance of RNFL and GCIPL thickness measurement in detecting early glaucoma

Method Sixty-four eyes with primary angle closure (32 glaucomatous, 32 nonglaucomatous) of 48

patients underwent peripapillary scanning using Cirrus OCT using 3,4 mm protocol fast RNFL peripapillary thickness scan. The measurement includes superior, inferior, nasal, temporal, mean GCIPL and RNFL, as well as superotemporal, superonasal, inferotemporal, inferonasal, minimal GCIPL.

Result All parameters studied were significantly thinner in PACG group compared to PAC group. Mean RNFL thickness and inferotemporal GCIPL has the highest specificity and sensitivity, respectively, in detecting glaucoma. Parameter with the best determinant is inferotemporal GCIPL thickness with sensitivity and specificity, 75% and 71.9%, respectively.

Conclusion Peripapillary RNFL and GCIPL could be a potential diagnostic parameter in detecting early glaucoma and monitoring therapy response in glaucoma patients. ;Background Glaucoma remains one of the biggest causes of blindness worldwide. Recently, RNFL and GCIPL thickness were shown to be correlated with early structural changes caused by glaucoma.

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