



**Hospital
Braga**

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Internal Limiting Membrane Peeling In Macula-Off Retinal Detachment

Hospital de Braga, Portugal

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Internal Limiting Membrane Peeling In Macula-Off Retinal Detachment



- Retinal detachment surgery has evolved greatly in recent years
- Published series report a success rate in excess of 90%¹
- Visual acuity recovery after RD is a gradual process and can take several months to obtain final VA²

¹Pars plana vitrectomy versus combined pars plana vitrectomy-scleral buckle for primary repair of pseudophakic retinal detachment. Weichel ED, et al. Ophthalmology. 2006 Nov;113(11):2033-40.

²Anatomical and functional results of primary pars plana vitrectomy in rhegmatogenous retinal detachment. Gerding H, Hersener A. Klin Monbl Augenheilkd. 2013 Apr;230(4):409-12.

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- Epirretinal membrane has been described as a common event after successful surgery³
- ERM formation can limit functional recovery after RD repair
- Recent series have shown improvement in VA after ERM peeling but that implies a 2nd vitrectomy...⁴

³Incidence and characteristics of macular pucker formation after primary retinal detachment repair by pars plana vitrectomy alone. Katira RC et al. Retina. 2008 May;28(5):744-8

⁴Visual and anatomical outcomes of macular epiretinal membrane peeling after previous rhegmatogenous retinal detachment repair. Weng CY, Gregori NZ, Moysidis SN, Shi W, Smiddy WE, Flynn HW Jr. Retina. 2014 Aug 13. [Epub ahead of print]

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- Internal limiting membrane can act as a scaffold for proliferation and ERM formation⁵
- ILM peeling could reduce the rate of secondary ERM formation⁵

⁵Internal limiting membrane peeling for primary rhegmatogenous retinal detachment repair. Rao RC, Blinder KJ, Smith BT, Shah GK. Ophthalmology. 2013 May; 120(5):1102-3.e1-2.

Internal Limiting Membrane Peeling In Macula-Off Retinal Detachment



- Purpose:
 - To analyse the incidence of secondary ERM formation following ILM peeling in patients with macula-off RD
 - Final VA
 - Complications...

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- Retrospective study
- Patients with RD operated on 2012
- Macula-off
- 2 groups – ILM peeling vs Non-peeling

Internal Limiting Membrane Peeling In Macula-Off Retinal Detachment



- 85 eyes of 85 patients
- ILM peeling in 21 patients (Group 1)
- No peeling in 64 patients (Group 2)

Internal Limiting Membrane Peeling In Macula-Off Retinal Detachment

| | Age (years) | RD duration (days) | VA (LogMAR) | Phakic (%) |
|---------|--------------------|---------------------------|--------------------|-------------------|
| Group 1 | 67,2±7,65 | 6,9±3,14 | 0,035± 0,036 | 10 (47,6%) |
| Group 2 | 66,5±8,55 | 6,78±2,83 | 0,038± 0,037 | 27 (42,2%) |

Internal Limiting Membrane Peeling In Macula-Off Retinal Detachment

- 23g PPV
- Cataract surgery when phakic
- ILM peeling under heavy liquid (staining with BBG in the first cases)
- Fluid-air exchange, LASER, Gas tamponade

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Internal Limiting Membrane Peeling In Macula-Off Retinal Detachment



- Mean follow-up time 18 months
- Primary anatomic success
 - 91% group 1
 - 95% group 2

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- ERM formation:
 - 0 patients in group 1
 - 8 patients (12,5%) group 2
- Final visual acuity
 - Group 1 – LogMAR $0,35 \pm 0,05$
 - Group 2 – LogMAR $0,35 \pm 0,04$

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- VA was lower in group 2 patients with ERM
 - Group 1 – LogMAR $0,35 \pm 0,05$
 - Group 2 (with ERM) – LogMAR $0,6 \pm 0,05$
- Four underwent a second vitrectomy
 - Vision improved in 3 cases

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- Metamorphopsia more frequent in group 1 (7 out of 21)
- Slowly improved.....

Internal Limiting Membrane Peeling In Macula-Off Retinal Detachment

- Conclusions
 - No difference in final VA
 - Worse VA in patients who developed ERM
 - No difference in reattachment rate
 - Reduction in ERM formation
 - No need for 2nd vitrectomy
 - Metamorphopsia..... Technique?



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Thank you!

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