Internal Limiting Membrane Peeling In Macula-Off Retinal Detachment

Hospital de Braga, Portugal

September 2014
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


• Epirretinal membrane has been described as a common event after successful surgery\(^3\)

• ERM formation can limit functional recovery after RD repair

• Recent series have shown improvement in VA after ERM peeling but that implies a 2\(^{nd}\) vitrectomy…\(^4\)

\(^3\)Incidence 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

• Internal limiting membrane can act as a scaffold for proliferation and ERM formation\textsuperscript{5}

• ILM peeling could reduce the rate of secondary ERM formation\textsuperscript{5}

Purpose:

- To analyse the incidence of secondary ERM formation following ILM peeling in patients with macula-off RD

- Final VA

- Complications…
• Retrospective study

• Patients with RD operated on 2012

• Macula-off

• 2 groups – ILM peeling vs Non-peeling
• 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

<table>
<thead>
<tr>
<th></th>
<th>Age (years)</th>
<th>RD duration (days)</th>
<th>VA (LogMAR)</th>
<th>Phakic (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group 1</strong></td>
<td>67.2±7.65</td>
<td>6.9±3.14</td>
<td>0.035± 0.036</td>
<td>10 (47.6%)</td>
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<tr>
<td><strong>Group 2</strong></td>
<td>66.5±8.55</td>
<td>6.78±2.83</td>
<td>0.038± 0.037</td>
<td>27 (42.2%)</td>
</tr>
</tbody>
</table>
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- 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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• Mean follow-up time 18 months

• Primary anatomic success
  • 91% group 1
  • 95% group 2
• ERM formation:
  
  • 0 patients in group 1
  • 8 patients (12.5%) group 2

• Final visual acuity
  
  • Group 1 – LogMAR 0.35 ± 0.05
  • Group 2 – LogMAR 0.35 ± 0.04
• 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
• Metamorphopsia more frequent in group 1 (7 out of 21)

• Slowly improved…..
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?
Thank you!
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