Evidence for Mohs surgery

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Dermatologist, Mohs surgeon
Secretary of the ESMS
Excision

- 3-5 mm clinical margin

- 0.1% margin control

Mohs

- Clinical margin
- “100% margin control”

“A chance to cut is a chance to check all peripheral margins” (Siegel, 2004)
Standard Excision

- Risk of positive margins for pBCC < =1cm
  - 30% at 2 mm
  - 16% at 3 mm
  - 5% at 5 mm

- Risk of positive margins for infiltrative pBCC 1-2 cm
  - 48% at 2 mm
  - 34% at 3 mm
  - 18% at 5 mm

### RR % for recurrence

<table>
<thead>
<tr>
<th>Therapy</th>
<th>pBCC</th>
<th>rBCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgery</td>
<td>10.1</td>
<td>17.4</td>
</tr>
<tr>
<td>Radiotherapy</td>
<td>8.7</td>
<td>9.8</td>
</tr>
<tr>
<td>Cryosurgery</td>
<td>7.5</td>
<td>-</td>
</tr>
<tr>
<td>Curettage. &amp; electrodissec</td>
<td>7.7</td>
<td>40</td>
</tr>
<tr>
<td>Mohs</td>
<td>1</td>
<td>5.6</td>
</tr>
</tbody>
</table>

Rowe DE, J Derm Surg Onco 1989. 2 retrospective studies with >3000 BCC each

1. Long term recurrence rates in primary BCC
2. Mohs surgery is the treatment of choice for recurrent BCC
### retrospective studies 5yr FU RR% Mohs

<table>
<thead>
<tr>
<th>Auteur</th>
<th>pBCC</th>
<th>rBCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tromovitch, 1966</td>
<td></td>
<td>6.9</td>
</tr>
<tr>
<td>Sakura, 1979</td>
<td></td>
<td>12.0</td>
</tr>
<tr>
<td>Mohs, 1981</td>
<td>0</td>
<td>6.8</td>
</tr>
<tr>
<td>Robins, 1985</td>
<td>1.9</td>
<td>6.4</td>
</tr>
<tr>
<td>Mohs, 1986</td>
<td>0.6</td>
<td>7.6</td>
</tr>
<tr>
<td>Mohs, 1988</td>
<td>1.7</td>
<td>7.8</td>
</tr>
<tr>
<td>Julian, 1997</td>
<td>1.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Wennberg, 1999</td>
<td>6.5</td>
<td>10.0</td>
</tr>
<tr>
<td>Smeets, BJD 2004</td>
<td>3.2</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Tertiary Mohs Centres
Evidence for BCC

- 1 Randomized study excision vs Mohs
  Lancet 2004;364:1766-72 Kelleners-Smeets et al
  Lancet Oncology 2008;9:1149-56. 5 year Follow up. Mosterd et al
Evidence for BCC

- Primary > 1cm H-zone 25% irradical excisions
- Recurrent BCC in the face: 30% risk of irradical excision
- Significantly less recurrences after Mohs
  - for pBCC 4.1% recurrence in SE vs 2.5% in MMS
  - for rBCC 12.1% recurrence in SE vs 2.4% in MMS
- Larger defects and therefore less cosmetic outcome after incomplete excision and for recurrent BCC
Evidence for BCC

• van Loo et al. SE vs Mohs 10 year follow-up. Eur J Cancer 2014

• pBCC 12.2% after SE vs 4.4% after Mohs
• rBCC 14% after SE vs 3.9% after Mohs

• Longterm Follow up is needed!
Evidence for SCC

- SCC: No randomized studies!

- Multiprofessional Guidelines for the management of the patient with primary cutaneous squamous cell carcinoma.

- Best cure rates
- Less recurrences and less metastases after Mohs

Aug 2009 British Association of Dermatologists
Is Mohs safe?

- Reliability Mohs slides viewed by Mohs surgeon vs Pathologist.

- Studies show high interpersonal agreement between mohs surgeons and pathologist on BCC presence: 95-99%
Reliability interpretation Mohs slides

- van Lee et al. Br J dermatol 2016
- Study in Erasmus MC Rotterdam NL
- prospective study BCC presence, location on the slide, BCC subtype
- 3 Mohs surgeons, 3 pathologists assessed 50 Mohs slides twice with a 2 month interval
Reliability Interpretation Mohs slides

- Intrapersonal and interpersonal reliability was substantial on BCC presence
- Moderate on BCC subtype
- Discordant diagnosis on BCC presence more frequent when slides were self-scored as difficult
Reliability Interpretation Mohs slides

• all three mohs surgeons identified BCC positive slides correctly (high sensitivity)
• Mohs surgeons were more likely to interpret benign structures as BCC (lower specificity)
• Pathologists had a lower sensitivity but higher specificity
European (Mohs) dermato-surgeons

• Certified training centra
• Certified training program
• Work in a Team!
• Promotion of dermato-surgery
• Incorporation in the EADV

• Skin Cancer belongs to DERMATOLOGISTS.
Thank you!