An audit of the immediate postoperative outcome of laryngectomy at Tygerberg Hospital

Dr E F Post
Prof J W Loock
Aim of the study

- Audit current practice and inpatient outcome
- Compare outcome with other centres
- Identify areas needing change
Method

- Retrospective audit

Inclusion criteria:
- Jan 1999 – September 2004
- Total laryngectomy at TBH
- With or without neck dissections / hemithyroidectomy
- Immediate post operative period until discharge
Method

- **Exclusion:**
  - Previous radiotherapy
  - Previous laser
  - Reconstructive surgery,
    eg Myocutaneous flaps
  - Oesophagectomy / stomach “pull-up”
Literature Search

- Pubmed
  - Few audits available
  - Multiple studies, numerous centres
- Weissler et al,
  - Complications of H+N Surgery
- Compare ± 3 studies as a guide for the expected outcomes
Results

- **Total patients:** 66
- **Gender:** Male 89%
- **Age:** Average 59 (40-77)
- **Staging:** T3 = 68.5%
- **Site of primary:** Supraglottic = 56%
- **Neck Dissection:** 68%
- **Emergency Tracheostomy:** 53%
N-staging Preoperative

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>N0</td>
<td>40</td>
</tr>
<tr>
<td>N1</td>
<td>16.5</td>
</tr>
<tr>
<td>N2a</td>
<td>12</td>
</tr>
<tr>
<td>N2b</td>
<td>12</td>
</tr>
<tr>
<td>N2c</td>
<td>16</td>
</tr>
<tr>
<td>N3</td>
<td>1.5</td>
</tr>
</tbody>
</table>
Outcomes

- Postoperative progress
- Lack of speech progress documentation by clinicians
- ICU: 5 patients
  - 3 ventilatory support
  - 2 observe / previous MI, CCF
- Time till discharge: 18 days (10-58)
Duration of inpatient stay

Days postoperative vs. Number of patient

The graph illustrates the duration of inpatient stay for a series of patients, with each bar representing a different patient. The y-axis shows the number of days postoperative, ranging from 0 to 70, and the x-axis represents the number of patients, ranging from 1 to 65.
Duration of stay until discharge - Uncomplicated cases

Day Postoperative

- Range
- Uncomplicated / Day DC

Day Postoperative:
- 0
- 2
- 4
- 6
- 8
- 10
- 12
- 14
- 16
- 18

Values:
- 10.5
- 13

## Major Complications

<table>
<thead>
<tr>
<th>Complication</th>
<th>Total (66)</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC Fistula</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Haematoma</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Wound Breakdown</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Chyle Leak</td>
<td>3</td>
<td>4.5</td>
</tr>
</tbody>
</table>
## Minor Complications

<table>
<thead>
<tr>
<th>Complications</th>
<th>Total (66)</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Transfusion</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>5</td>
<td>7.5</td>
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<tr>
<td>Seroma</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Atelectasis</td>
<td>3</td>
<td>4.5</td>
</tr>
</tbody>
</table>
Postoperative Wound Breakdown

Percentage of Cases

- Range
- Wound Breakdown
- Range

- 4.2
- 7.5
- 11
Postoperative Chyle Leak

- Range: 1
- Chyle Leak: 4.5
- Range: 5
Oncological Outcomes

- **Excision margins adequate:** 62% (41/66)
  - Pathology reporting?

- **Post operative Radiotherapy:** 86% (57/66)
  - Preoperative tracheostomies 53% (35/66)
  - Excision margins inadequate 38% (25/66)
  - Extra nodal spread 14% (9/66)
  - Multiple nodes positive (>1) 40% (26/66)
Conclusion

- Our current practice compares favourably with other H+N centres

- Management adjustments
  - Histology reporting
  - Clinicians to document speech progress

- LATE presentation
  - Create awareness in community / clinic
Future studies

- Continue data base for prospective studies
- Re-audit
- Long term vs. Early complications
- Quality of life
Literature search