The International Federation of Head and Neck Oncologic Societies

Current Concepts in Head and Neck Surgery and Oncology 2017

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Salvage Surgery in Recurrent Oropharyngeal SCC

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Recurrent SCC of the Oropharynx

• The most common primary treatment of OPC-SCC is CRT or XRT
• When patients fail primary treatment, salvage options are limited.
• Options
  – Salvage surgery
  – Re-irradiation +/- chemo
  – Palliative chemo
  – Supportive care
Objective

• To comprehensively review salvage surgery for SCCOP
  – survival
  – quality of life
  – factors predicting outcome
1,681 SCCOP Patients

434 Evaluated for Recurrent/Residual Disease

182 Distant Disease

53 Regional Disease Only

199 Locally Recurrent Disease without Distant Disease

41 Salvage Surgeries

127 Nonsurgical Treatment or Supportive Care with Follow-up

Demographics and Site of tumor

- 33 males, 8 females
- Median age 56 years (Range 28 – 79)

![Pie chart showing the distribution of site of tumor.]

- 61% for Soft palate
- 34% for Base of tongue
- 5% for Tonsil
Treatment of initial tumor

- XRT: 100%
- Chemotherapy: 60%
- Surgery: 20%
- Neck Dissection: 0%
Recurrent Tumor Characteristics

Recurrent Disease Status
- Disease-free interval: 34%
- No disease-free interval: 66%

Recurrent Tumor Stage
- rT1: 2%
- rT3: 4%
- rN0: 76%
- rN1-3: 24%
- rN2: 24%
- rN3: 46%

Recurrent Neck Stage
Comparison of Salvage Surgery versus Nonsurgical Treatment

• Salvage surgery patients more likely than nonsurgical candidates to have had:
  – Disease-free interval following primary treatment (P = 0.047)
  – Early primary tumor stage (P = 0.015)
  – Early recurrent tumor and overall stage (P < 0.001)

• Salvage surgery patients less likely than nonsurgical candidates to have had:
  – Surgery for initial tumor (P = 0.021)
  – Chemotherapy for initial tumor (P = 0.049)
Salvage Oropharyngeal resection

• Composite resection
  – 18 (44%) Segmental mandibulectomies
  – 7 (17%) Total laryngectomies

• Reconstruction
  – 28 (68%) Microvascular free flap reconstructions
  – 5 (12%) Pectoralis myocutaneous flap reconstructions
  – 8 (20%) Primary closure

• Adjuvant treatment
  – 3 (7%) Reirradiation only
  – 12 (29%) Chemotherapy only
  – 2 (5%) Both reirradiation and chemotherapy
Postoperative Course

• 19 patients (47%) had postoperative complications
  – 7 Surgical Wound Infections
  – 6 Fistulas
  – 5 Donor site complications
  – 4 Postoperative pneumonias
  – 3 Mandibular osteoradionecroses

• No perioperative deaths or postoperative partial or total flap loss

• Average $82,500 in professional and hospital charges per patient
Quality of life

Speech
- Oral speech: 78%
- Other: 22%

Nutrition
- Oral intake: 37%
- Partial oral intake/partial feeding tube: 32%
- Feeding tube dependent: 32%

Tracheostomy (N = 30)
- Decannulated: 13%
- Permanent tracheostomy: 87%
Crude Second Recurrence Rates in Patients Undergoing Surgical Salvage

Total cohort: 26/39 (66.7%) developed second recurrence

Recurrent disease status

P = 0.027
Crude Second Recurrence Rates in Patients Undergoing Surgical Salvage

Total cohort: 26/39 (66.7%) developed second recurrence

**Recurrent neck stage**

- rN0: 16/29 = 55.2%
- rN1, rN2, or rN3: 10/10 = 100%

**Surgical margins**

- Negative: 19/32 = 59.4%
- 5mm or > positive: 7/7 = 100%

P = 0.010

P = 0.039
Age and Overall Survival for Surgical Salvage Patients

- Mean age of patients (censored at the time of diagnosis of recurrent disease):
  - 50 years for those who were alive at 3 years following salvage surgery
  - 60 years for those who had died at 3 years following salvage surgery
- \( P = 0.03 \)
Overall Survival

- 3-year Overall Survival (following diagnosis of second recurrence):
  - 42% for surgical salvage (N = 41)
  - 32% for reirradiation (N = 19)
  - 4% for palliative chemotherapy (N = 67)
  - 5% for supportive care (N = 39)

- 3-year Recurrence-Free Survival:
  - 26% for surgical salvage
The effect of disease free interval on overall survival

Overall Survival of Patients with Residual or Recurrent Oropharyngeal Cancer

- Died
- Last Contact

Surgical Salvage with Disease-Free Interval versus Surgical Salvage without Disease-Free Interval: P < 0.01

Cumulative Proportion Surviving

Months from Diagnosis of Residual or Recurrent Disease

Nonsurgical Treatment without Disease-Free Interval
N = 14

Surgical Salvage with Disease-Free Interval
N = 27
The effect of recurrent tumor stage of on overall survival

Overall Survival of Patients with Residual or Recurrent Oropharyngeal Cancer

- Died
- Last Contact

- Salvage Surgery for Recurrent T1 or T2 Disease
  N = 19

- Salvage Surgery for Recurrent T3 or T4 Disease
  N = 22

- Nonsurgical Treatment for Recurrent T1 or T2 Disease
  N = 15

- Nonsurgical Treatment for Recurrent T3 or T4 Disease, N = 73

Cumulative Proportion Surviving

Months from Diagnosis of Residual or Recurrent Disease
Overall Survival, Disease-Free Interval, and Recurrent Tumor Stage

Overall Survival of Patients with Recurrent Oropharyngeal Cancer

- Died
- Last Contact

Recurrent T1 or T2 Disease with Disease-Free Interval
N = 14

5-year Overall Survival = 45%

Months from Diagnosis of Residual or Recurrent Disease
Conclusions

• Favorable salvage surgery candidates:
  – Disease-free interval after definitive therapy
  – Small recurrent tumors
  – Younger
  – No recurrent neck disease

• Salvage surgery can provide a very select group of patients with long-term disease control and quality of life.
Case Presentation

• 57 yo WF

• Recurrent T2 SCC of the soft palate and tonsil
RADICAL TONSILLECTOMY
TORS: Recurrent Tonsil Cancer
Post-Op Outcome: Healing by Secondary Intention
no flap required
Recurrent Base of Tongue

- 49yo WM
Case Presentation
Surgical Pathology: pT2pN1M0
Postoperative Outcome

Early Postoperative

Post Radiation Therapy
RECONSTRUCTION

- Secondary intention
- Primary closure
- Local flaps
- Free flaps
Timing of Neck Dissection

- Immediate vs. Delayed
  - Risk of fistula
    - 30% pharyngo-cervical connection
    - 5% fistula rate
  - Margin control
  - Logistics
Free Flap Reconstruction
POST-OPERATIVE MANAGEMENT

• Airway Management
  – Extubate, ETT, Trach.?

• Antibiotic Prophylaxis

• Oral Intake
  – NPO x 24 hours
  – Neck Dissection?
    • No fistula → NPO x 48 hours
    • Fistula → NPO x 5 days
  – Prior XRT
    • NPO x 48 hrs
    • Swallow evaluation
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Thank you