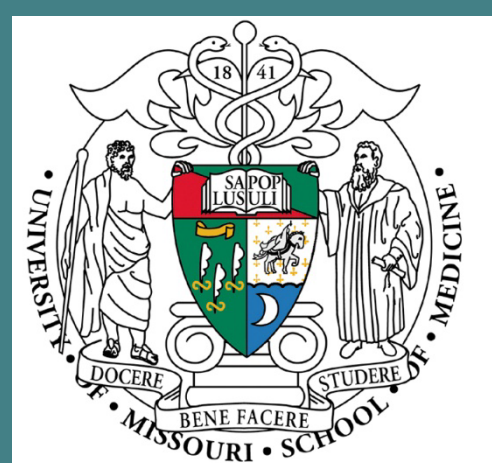


# CUTANEOUS SQUAMOUS CELL CARCINOMA METASTASIS TO PAROTID, ANALYSIS OF OUTCOMES WITH POSITIVE MARGINS AT INITIAL RESECTION



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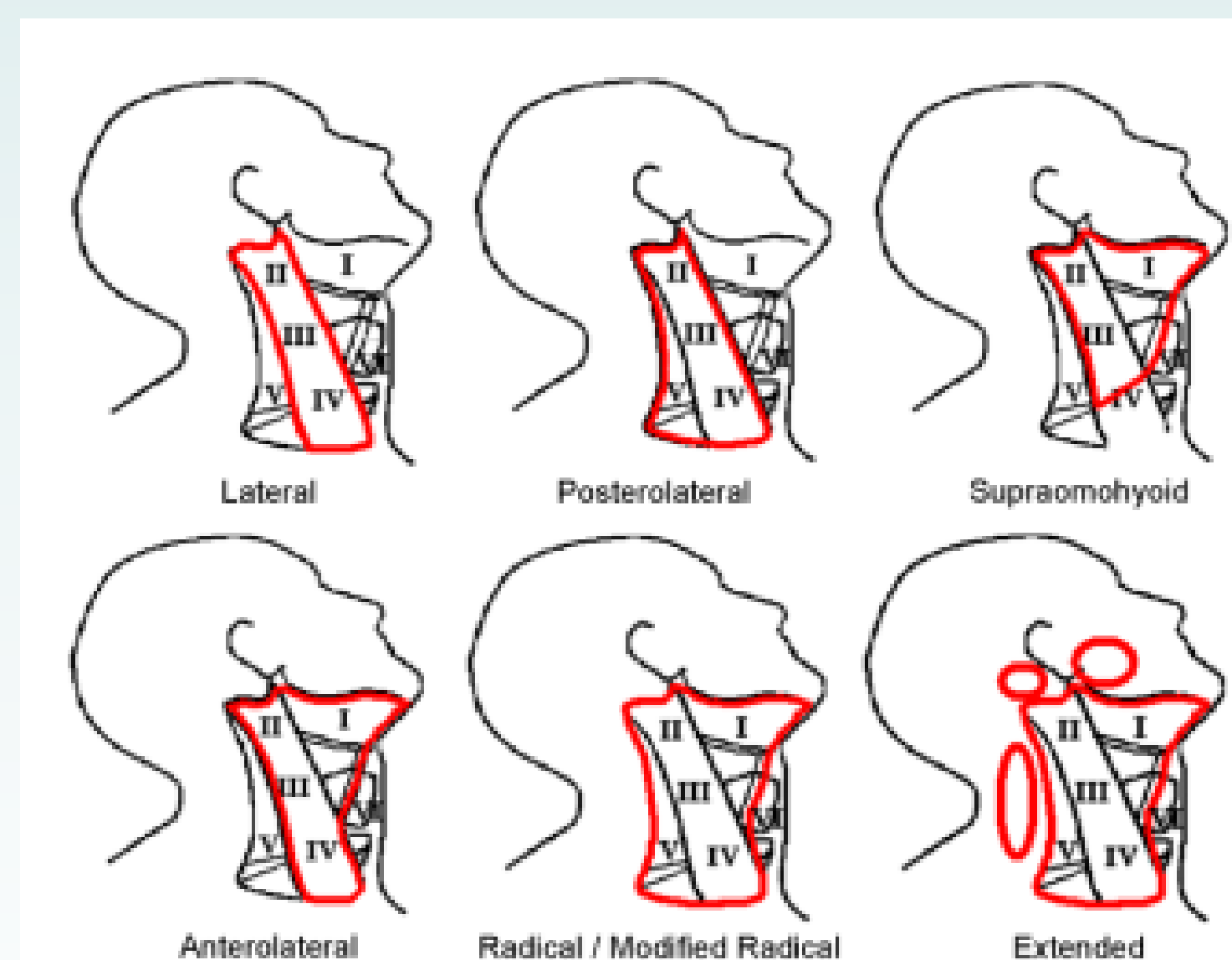
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## Introduction

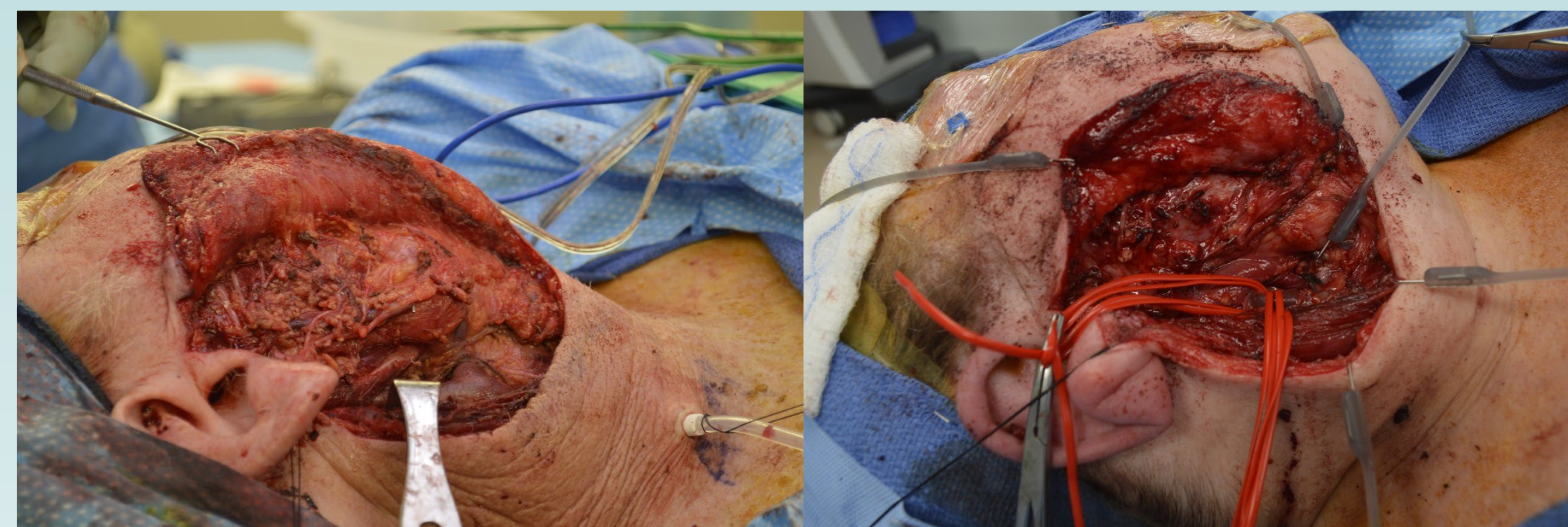
Several studies have been conducted evaluating **prognostic** factors in *primary* salivary gland cancer as well as in cutaneous squamous cell carcinoma (SCCa) with metastasis to the salivary glands. However, there is currently a gap in the literature regarding the **outcomes** specifically related to **positive margins at initial marginal analysis for cutaneous SCCa in patients with metastasis to the parotid**. Patients with metastasis of cutaneous squamous cell carcinoma (SCCa) to intraparotid lymph nodes are often treated with parotidectomy (**Figures 2 & 3**) and neck dissection (**Figure 1**).



**Figure 1.** Common Forms of Neck Dissection. This image depicts the variety of neck dissection classifications based on the nodal basin being dissected (Fagan 2012).

Pathology reports may comment on the presence of carcinoma at the inked edge of a specimen, but the **clinical significance** of this “**positive margin**” is understudied.

With this study, we aim to expand on the current literature to specifically evaluate overall survival and disease-free survival rates in patients who underwent surgery with parotidectomy and neck dissection for metastatic SCCa to the parotid gland.



**Figure 2 & 3.** Intraoperative Images During Parotidectomy for Cutaneous SCCa Metastatic to the Parotid Gland.

## Methodology

- This **retrospective cohort study** was performed utilizing electronic medical records (EMR) from the University of Missouri Health System for chart review.
- Patients who had undergone parotidectomy and neck dissection were reviewed.
- Patients were categorized as having positive or negative specimen margins based on pathology reports.
- Treatment plans and survival outcomes were analyzed.

## Results

- **23 patients** met inclusion and exclusion criteria.
- Patients had to have primary cutaneous SCCa to qualify for this study.
  - Subsites identified included scalp (4, 17%), temple (6, 26%), cheek (6, 23%), neck (4, 17%), or unknown primary (3, 13%).
- Patients had an **average follow-up of 15 months**.
- 18 of 23 (**78%**) of patients had previous surgery/ resection performed for head and neck cancer prior to coming to UMHC for treatment of their metastatic disease.
- 15 of 23 (65%) patients underwent deep lobe parotidectomy for treatment of their parotid metastasis.
- Most patients (16/23, **70%**) received adjuvant radiation after surgery.
- AJCC stage ranged from stage II to stage IVB.
  - Stage II (1, 4%), III (2, 9%), IV (3, 13%), IVA (5, 21%), IVB (12, 52%)
- Nine patients (**39%**) had pathologic evidence of carcinoma at specimen edge, and 14 (**60%**) did not.
- Four of nine patients **with positive margin (44%)** had **disease recurrence** over the study period, compared to recurrence in only two of 14 patients **without** a positive pathologic margin (**14%**).

## Conclusion

Based on our data, it appears that the positive margin in metastatic cutaneous SCCa to the parotid gland **may have some clinical significance**, as 44% of the patients who qualified for this study had **disease recurrence with positive margins** noted at initial marginal analysis.

Pathologically positive nodal margins in patients undergoing parotidectomy and neck dissection for metastatic cutaneous SCCa may indicate aggressive disease with higher likelihood of recurrence. Limitations of this study include the small cohort size and inability to evaluate for racial differences due to the demographics of the patient population.

## Future Directions

Future studies including a **larger number of patients** from multiple institutions, and especially **prospectively-collected data**, may better define patients at risk of recurrence with this pathology.

## Acknowledgements

I would like to thank the Department of Otolaryngology and Dr. Patrick Tassone for allowing me to be a part of this project.