Treatment of laryngeal cancer: rationale and outcomes

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ABSTRACT

Inspection of our data reveals patterns in the ways patients were directed towards different treatments. In this series TLM was the clear favorite for T1a lesions, while radiation was used for the majority of T1b lesions, consistent with current data and practice patterns. Laryngeal squamous cell carcinoma (SCC) is still diagnosed in roughly 11,000 patients each year in the United States, with an incidence of 7.3/100,000, and is the most common head and neck cancer. Despite improvements in treatment, cure rates have remained unchanged. In this study, we examined the rationale for and outcomes of the various treatment modalities for laryngeal cancer.

RESULTS

A total of 79 consecutive patients with laryngeal cancer were included in this study. Patients were stratified by T stage, with TLM used for patients with low T stage tumors, while PL was reserved for advanced T stage tumors. In 22 patients, RT was not used as a primary treatment modality in TL tumors. The rationale for each treatment modality was thoroughly evaluated (Table 2); most patients had either tumor characteristics that precluded conventional laryngeal surgery or poor functional status.

Treatment failures and additional therapy were also studied (Table 3). RT was generally advanced using a variety of surgical techniques, while PL was only advanced via laryngectomy. TL had a low failure rate and was easily managed by radiation therapy. Conversely, TL failures required extensive surgery, chemoradiation, or palliation.

Finally, voice and swallowing outcomes were analyzed across treatment groups (Tables 4 and 5). RT and TL had similar voice outcomes, while PL was significantly worse. No patient required feeding tube use. RT and TL patients had the best results, with no long-term feeding tube use. PL, TL, and RT all had similar swallowing outcomes, while PL had the worst swallowing outcomes.

Table 1: Patient Demographics

Table 2: Rationale for treatment plan

Table 3: Treatment failures

Table 4: Voice outcomes

Table 5: Swallowing outcomes

CONCLUSIONS

These data provide insight into how and why patients with laryngeal cancer are allocated to specific treatment modalities, which may allow for more uniform treatment guidelines in the future. These results also reinforce the importance of multidisciplinary involvement for the treatment of these patients, as each modality needs to be considered independently to determine best practice.

REFERENCES