SALVAGE TOTAL LARYNGECTOMY –OUTCOMES AND COMPLICATIONS IN A TERTIARY CARE SETTING

Dr Rajiv C Michael ,Department Of Head & Neck Surgery ,Christian Medical College & Hospital , Vellore , India

INTRODUCTION :

The indications for a Total Laryngectomy have decreased as organ preservation strategies have mandated a paradigm shift.. Salvage Total Laryngectomy is indicated for chemo-radiation, radiation, or partial laryngeal surgical failures. Salvage laryngectomy was required in 16% of patients treated with concurrent chemo-radiation and 31% of patients treated with radiotherapy alone in the RT-OG 91-11 Trial . Salvage Total Laryngectomy can be technically more difficult and carries a higher postoperative complication rate (1) Organ-preserving RT and CTRT for laryngeal carcinoma produce comparable survival outcomes to primary laryngectomy and postoperative RT with the benefit of preserving voice and swallowing in a significant number of patients. However, not all patients respond and some have disease recurrence after successful therapy. Surgical salvage for these patients requires a total laryngectomy.(2) The morbidity for Salvage Total Laryngectomy after RT and particularly CTRT is not well documented in the literature. More importantly, patient and treatment related variables that might help to predict the development of post laryngectomy complications have not been studied (3) There is very little literature about outcomes of salvage laryngectomy in the Indian Subcontinent .Locally advanced disease (T4) was seen in 2/3rd of the patients at presentation to our Institution

Post RT recurrence with Skin Involvement

Port operative Morbidity	Primary Laryngectomy N=44	Salvage Laryngectomy N=25
Chyle Leak	3 of which : 2 -Conservative 1 - re-explored	0
Pharyngo cutaneous Fistula	0	5
Perioperative complications /Morbidity	0	1(Cardiac)
Perioperative Mortality (< 6 Months –due to Local or Distant Mets)	0	0 3 deaths due to distant Metastasis all after 12 months

Our patients were from remote rural backgrounds with poor access to tertiary health care and socio-economically from the lowest rung. A majority were nutritionally depleted with low awareness of the disease ,low finances and a tendency for a poor follow up . IMRT not the standard of care universally . Elective Bilateral neck irradiation is the standard for the N0 Neck in many parts of Asia. It is in this setting that we have looked at our outcomes

OBJECTIVES :

To study the post operative complications in patients undergoing Salvage total Laryngectomy in our Institution between 2015- 2017

MATERIALS AND METHODS :

Two hundred and seventeen patients with Stage IV laryngeal cancer who were treated between 2015-2017 at our Institution were studied. Sixty nine of them needed a Total Laryngectomy . Forty four were Primary upfront Laryngectomies – all had either cartilage erosion and/or extra laryngeal spread on CECT . Twenty five were Salvage Laryngectomies for post Radiotherapy recurrence . The records of the 25 patients who underwent a Total Salvage Laryngectomy at the Head & Neck Surgery department of the Christian Medical College & Hospital Vellore between 2015 – 2017 were studied

RESULTS :

All 44 primary upfront Laryngectomies had a concomitant ipsilateral neck dissection of which 5 pts had a B/L neck dissection. Salvage Neck dissections were done along with Salvage Laryngectomies only for Node positive necks None of the Salvage laryngectomies had evidence of nodal recurrence on PET CT in our series . The Pharyngo-cutaneous fistula rate was 5 /69 (7.24) . All were in Salvage laryngectomies . Three patients had a Chyle leaks . All in the primary laryngectomy category Two were managed conservatively and 1 required re-exploration. Two of the five patients with a pharyngo-cutaneous fistula needed Surgical Fistula closure and Pharyngeal reconstruction with a Pectoralis Major or delto-pectoral flaps . Three recovered with conservative treatment alone .Our current policy is to use vascularised tissue for pharyngeal reconstruction in all salvage Laryngectomies. One patient had a perioperative Myocardial Infarction / cardiac event from which he recovered. There were 3 deaths due to disease recurrence with distant metastasis none were within 12 months of Surgery. One was in the primary Laryngectomy group and two in the Salvage surgery group. The overall survival after Salvage Laryngectomy was 92% in our series. There were no Surgery related mortalities in the immediate post op period.

CONCLUSION :

Salvage total laryngectomy can be a technical challenge even for the experienced surgeon .Post operative Pharyngo-cutaneous fistula can be reduced with the use of vascularised tissue .The role of Salvage neck dissection with Salvage laryngectomy for the N0 neck is controversial . In our setting neck dissection in the salvage setting was done only for patients with Radiological and clinical evidence of nodal recurrence on a PET CT Scan .

References

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