

Surgical experience with head -neck malignancy in eastern Nepal

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ABSTRACT

Introduction: This was a retrospective study to observe the pattern, surgical outcomes, and complications of head-neck malignancies.

Methods: This was a retrospective study done in B.P Koirala institute of health sciences a tertiary care centre situated in Dharan, Eastern Nepal .We included the operated 22 cases of head-neck malignancies in this study. Majority of the patients presented to specialists with advanced stage of the disease.

Results: The most common cancer was found in the oral cavity or oropharynx. The most commonly performed operation was segmental mandibulectomy. Neck dissection was done in 13 cases. Among them in 8 cases classical radical neck dissection was done and in 5 cases modified radical neck dissection was done. Post operative complications were observed in 5 cases

Conclusion: The predominant site of the head & neck malignancy was oropharynx. Complication was observed in acceptable rate but the follow up of the patients was poor.

Key Words: Head and Neck, Malignancy, Surgical outcome

INTRODUCTION

Head & neck cancer is the major problem due to its associated morbidity and mortality. It is the sixth most common cancers worldwide¹. Its incidence is increasing in developing countries like Nepal & India. In India the incidence of the head & neck malignancy in comparison to total body malignancies has been reported from 20% to 68.2% from different parts of the country². Poor nutrition combined with consumption of

tobacco, tobacco products, poor orodental hygiene, alcohol and smoking make the population of developing countries more vulnerable to head & neck cancer.

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Multimodality therapy including either induction chemotherapy or concurrent chemoradiation therapy gives the better results than unimodality of treatment for head & neck malignancy. Surgery represents the best local and regional treatment for majority of the head & neck cancers. But approximately 60% of the patients with head and neck cancer present in advanced stages III and IV. Surgical salvage alone in these patients is quite poor. Radical surgery, followed by postoperative radiation therapy, has essentially become the standard treatment in recent years³.

MATERIALS & METHODS

This is a retrospective study, analyzing 22 cases of head & neck cancer who underwent surgical management at BPKIHS from January 2006 to December 2007. The data regarding the demographic variations, site of the lesion, staging of the lesion, surgical procedure, surgical findings, and post operative complications were taken. Some of patients were regularly followed up and records were kept regarding the post operative radiotherapy, recurrence and other associated complications.

RESULTS

Out of 22 patients, 13 were male and 9 were female with a sex ratio 1.3:1. Majority of the cases were from age group of 51-60 years (Table- 1).The majority of the patients were having lesion in the oral cavity or pharynx. Out of 22 patients 9(41%) had the lesion in oral cavity or pharynx (Figure-1).

Segmental mandibulectomy was the most commonly performed operations in our cases followed by total thyroidectomy (Table- 2). In one case excision of the ala of the nose with radical parotidectomy with radical neck dissection was done. Majority of our patients presented at advance stage of disease. Eleven patients (50%) were of stage III disease and 8 patients (36%) were of stage IV disease (Figure-2).

Age group	No.of patient
<30years	3
31-40 yrs.	5
41-50yrs.	3
51-60 yrs.	7
61-70 yrs.	4
Total	22

Types of operation	Number
Segmental Mandibulectomy	5
Total Thyroidectomy	4
Total Parotidectomy	3
Total Maxillectomy	2
Excision of the lesion with free margin	3
Laryngo-pharyngectomy with gastric pull-up	1
Total Laryngectomy	1
Hemi-glossectomy	1
Commando Operation with delto-pectoral flap	1
Excision of the ala with total parotidectomy with radical neck dissection	1
Total	22

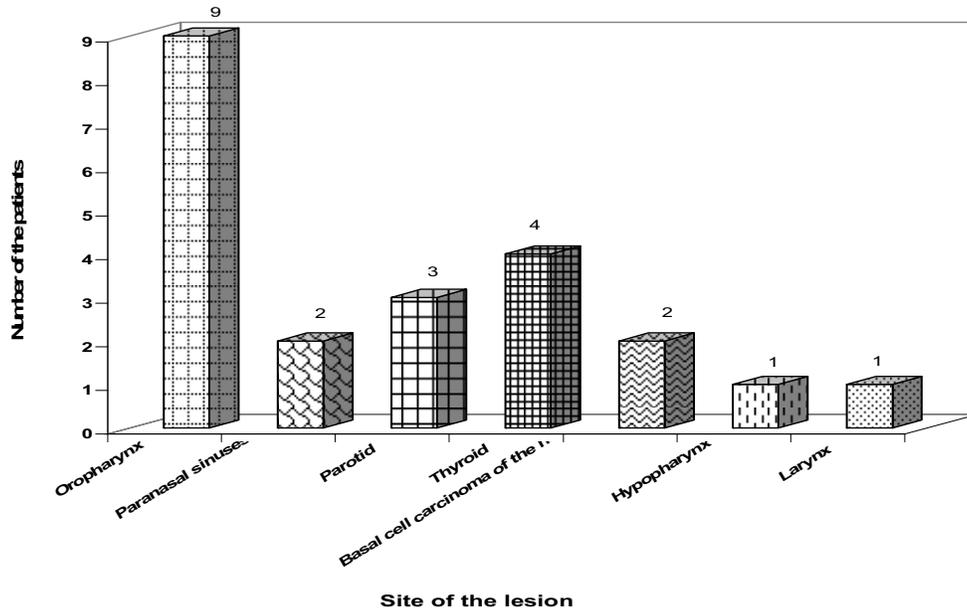


Figure-1: Sites of lesions

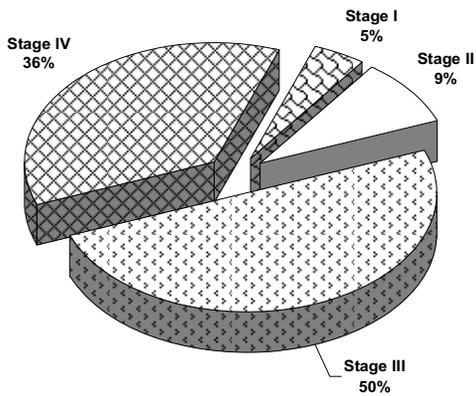


Figure 2. Stages of the lesion at presentation

In 5 cases modified radical neck dissection was done (Table-3). Squamous cell carcinoma was reported in 63.6% of the cases on Histopathology (Table-4).

Type of Neck dissection	n= 13
Radical neck dissection	8
MRND ^a (Type 1)	3
Supraomohyoid Neck Dissection	2
Total	13
^a Modified Radical Neck Dissection	

Neck dissection was done in 13 cases. Among them in 8 cases classical radical neck dissection was done. Among them in 7 cases Criel incision was given and in 1 case Macfee incision was used.

In one case of epithelial- myoepithelial carcinoma of parotid delto-pectoral flap was used. In case of adenocarcinoma of retromolar trigone, commondo operation was done and pectoralis major flap was used for reconstruction of the defect. In a case of carcinoma of cheek, tongue

Table-4: Histopathological Diagnosis of the head & neck malignancies		
SN	Histopathological diagnosis	Number
1	Squamous cell carcinoma	12
2	Papillary cell carcinoma	3
3	Basal cell carcinoma	2
4	Medullary cell carcinoma	1
5	Epithelial-myoepithelial carcinoma	1
6	Adenoid cystic carcinoma	1
Total		20

DISCUSSION

The management of head & neck malignancy is best achieved by a multidisciplinary team. It incorporates surgeons, medical specialists, anesthesiologist, radiation oncologists, pathologist and plastic surgeons. Accepted best management depends upon the location, extension and biology of the tumor. The concept of preservation of the functional organs is growing nowadays, which include the chemotherapy and radiotherapy. But the more advanced the disease more radical surgery is recommended for the local and regional control of the disease. In our contest most of the patients seek the specialist opinion with advanced disease which need the surgical therapy for better cure.

As in our cases 85% of the patients were of stage III and stage IV. Not only in

flap was used to repair the mucosal lining. In a case of soft palate excision of the primary was done. Repair was done by temporalis aponeurosis.

Post operative complications were observed in 5 cases. Seroma formation was observed in 2 cases. In one case there was injury to the thoracic duct which was repaired primarily.

Mortality occurred in two cases: the patient with Laryngopharyngectomy with gastric pull up expired on thirty-two post operative day due to pneumonia and septicemia and other mortality occurred due to development of myocardial infraction on third post operative day in ICU. Six patients are on regular follow up. One patient had recurrence at the primary site even after chemotherapy and radiotherapy.

developing countries but also in Netherland the number of patients of head & neck malignancy presenting with advanced stage carcinoma has increased over a period of last 21 years⁴. Similarly, Sundaram et al has reported that the stage IV disease was the most prevalent oropharyngeal cancer in their study⁵.

Most of our patients were of fifth and sixth decades. Similar results were reported by others in their study where the maximum incidence of head & neck malignancy was found in sixth decade^{6,7}. Majority of our patients were having lesion in the oral cavity or oropharynx which was similar to the results reported by others^{6,7}. The oral cavity squamous cell carcinoma accounts for 0.6%to 5% of all cancer in Europe and United states but up to 45% of all cancer in India⁸. The increased incidence of oral cavity and oropharynx malignancy in Indian subcontinent may be due to the increased use of betel nut, tobacco

chewing and reverse smoking. Among our 9 cases of oral cavity/ oropharyngeal cancer segmental mandibulectomy was done in 5 cases. Considering the limited nature of the disease, excision of the lesion with free margin was performed in 3 cases. In 1 case commando operation was done.

Total thyroidectomy was done in 4 cases where 3 cases were having papillary cell carcinoma and 1 patient had medullary cell carcinoma. The patient who had medullary cell carcinoma was a 17 years young girl. She was diagnosed as a multinodular goiter in FNAC and USG of the neck. First hemithyroidectomy was done and the specimen was sent for histopathological evaluation which revealed the medullary cell carcinoma. Within two weeks other lobe was also removed and complete thyroidectomy was performed.

The most common histopathology of the head & neck malignancy is squamous cell carcinoma comprising 80% to 90% of all malignancy of head & neck.⁹

In this study also squamous cell carcinoma was the commonest carcinoma. Generally major post-operative complications occur in up to 20% of operated cases for head neck malignancy¹⁰. There was two mortality while other minor complications were taken care.

In our study 6 patients came for regular follow up. The poor follow up is may be due to nonavailability of radiotherapy unit in BPKIHS. We refer the case for radiotherapy to either Bharatpur cancer hospital or Kathmandu. Once patient has been sent to another center for treatment they may have the difficulties for regular follow up. Recurrence was observed in one case in spite of post operative chemotherapy and radiotherapy.

CONCLUSION

Our small study showed the predominant site of the head & neck malignancy is oropharynx. Most of the time the patients seek the specialist opinion late with advanced stage of the disease which needs multidisciplinary team for better management which is still lacking in our country. Poor compliance by patients and unavailability of radiotherapy unit in most of the tertiary center has hampered the proper follow up of the cases.

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