

Surgical Dilemmas in Head and Neck Oncosurgery: A Hospital based Study

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ABSTRACT

Introduction: A definite protocol should be followed for management head and neck cancers. Many complications are generally seen during the treatment period. Study aimed to see the management of different types of head and neck cancers and their post-treatment complications.

Material and methods: 264 patients were treated in the study period. Management by surgery along with chemotherapy, radiotherapy and chemo radiation was done.

Results: Many complications were seen in cases of head and neck carcinoma. The management of surgical dilemmas should always be decided beforehand.

Conclusion: The first line of treatment for the management of surgical dilemmas should be chemo-radiation.

Keywords: Surgical Dilemmas, Head and Neck Oncosurgery

INTRODUCTION

In cancer abnormal cells divide uncontrollably and have the ability to infiltrate and destroy normal body tissue. The oral cavity cancer represents a group of conditions with a range of sites and a varied aetiology. Its incidence is increasing. Oral cancer is associated with social and economic deprivation, tobacco, betel quid, alcohol, age, gender, sunlight, candida and the human papillomavirus (HPV) infection. A strong association between HPV and oropharyngeal cancers has been seen. Fibrosarcoma (FS) affects the oral cavity.^{1,2} It is a rare tumor, accounting for approximately 5% of all malignant intraosseous tumors^{3,4}. The present treatment is primarily radiation therapy followed by chemotherapy with cisplatin and other chemotherapy groups mainly docetaxel and 5FU. Study aimed to manage cases by other methods when surgical approach was in dilemma.

MATERIAL AND METHODS

The study was a retrospective study carried in Assam Medical College and Hospital, Dibrugarh, Assam, India. The main objective being to highlight the management of cancers of head and neck region and its improvement in terms of survival and quality of life. Although the study period is short but it is important and a note should be taken about the actual scenario that is trending.

264 patients which were estimated by prior inclusion and exclusion criteria were treated in the study period (July 2014 to June 2016).

Inclusion criteria: All primary head and neck cancers admitted. All secondary head and neck cancers admitted were excluded from the study.

Different approaches like surgery along with chemotherapy, radiotherapy and chemoradiation were used. Cisplatin based chemotherapy in a dose of 100mg/m² IV in 1 hour and Docetaxel in a dose of 100mg/m² IV in 1 hour. Radiation in a dose of 66 Gy

-72 Gy on weekdays for six weeks was given.

STATISTICAL ANALYSIS

Descriptive statistics like mean and percentages were used to interpret the results with the help of Microsoft office 2007

RESULTS

Epidemiology: 264 cases were admitted and planned for surgery, chemoradiation or both. All patients came from a dry, hot and dusty environment. Communities having the same cultural practices are now having a rise in the incidence of the disease.

The patients of oral carcinoma patients presented with non-healing sore, pain, a lump or thickening in the cheek or a white or red patch on the gums, tongue, tonsil, or lining of the mouth. They also presented with sore throat of non-giving away nature. Swallowing and chewing is difficult. There was numbness of tongue along with swelling of the jaw and loosening of the teeth or pain around the teeth or jaw was also seen.

Investigations: Routine laboratory examinations for the chemotherapy and radiotherapy were also performed in every case. Histopathological examination report in sino-nasal carcinomas showed them to be well differentiated squamous cell carcinoma. In cases with nasopharyngeal carcinoma histopathologically the malignant cells were arranged in small groups and syncytial sheets were seen. In cases with fibromyxoid sarcoma atypical spindle shaped cells embedded in myxoid matrix were seen.

Treatment modalities

Basosquamous carcinoma (BSC): Fig-1 shows that in contrast to pure BCC, some basaloid cells with eosinophilic cytoplasm, and exhibit variable cytoplasmic keratinization.

Some of the cases were treated only by chemo-radiation. In fig no. 2. Cisplatin based chemotherapy and Radiation in a dose of 66 Gy -72 Gy on weekdays for six week

Mandibular reconstruction by PMMC flap for locally advanced tumors of the oral cavity alone cannot suffice and even after such extensive surgery the patient was still put on chemoradiation. Patients with sinonasal tumor were treated by single anterior

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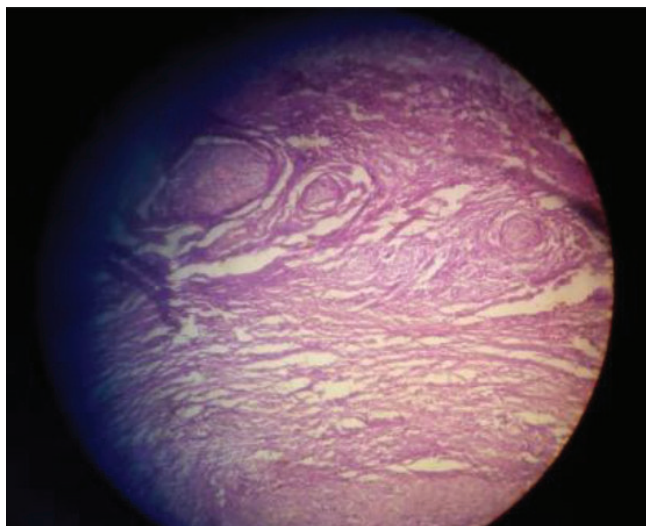


Figure-1: HPE showing basosquamous carcinoma



Figure-2: Shows patient on chemoradiation.

field radiation. After radiotherapy patient went for a course of chemotherapy using 5-Flourouracil and Cisplatin.

DISCUSSION

Margins have always been a criteria for resection and also a dilemma for the operating surgeon. High recurrence rates are reported despite wide local incision,⁵ making complete excision essential. Post operative radiotherapy can be a promising approach. Squamous cell carcinoma of nasal floor and underlying structures including alveolus and oro-antral fistula is a very rare case. The conventional treatment always had been mid facial degloving and post operative radiotherapy. In our patient chemoradiation was done. It was seen that there was extensive reduction of the mass and the field for operation had reduced to a pin head size. The patient was further planned for surgical removal. The patient is on continuous follow up and no complications have occurred till now.^{6,7} Two studies conducted in Belgium cited that post op radiotherapy in sinonasal carcinoma has good local control and low rate of toxicity.⁸ One more study done in Turin, Italy cited that radiotherapy alone has low local control although 3D-CRT reduces risk of optical pathways but did not modify survival.

⁹Radiation, according to its timing has many toxicities.¹⁰ Such toxicity was not observed in the study conducted by Alexander

et al where patients of sinonasal malignancies received chemotherapy following radiotherapy. Therefore, whether the addition of chemotherapy worsens optic toxicity following RT for sinonasal malignancies is unclear at this time.

CONCLUSION

Chemo-radiotherapy has emerged as an important tool in the treatment by the last decade and combined radiotherapy and chemotherapy should be the first line of treatment in such disfiguring condition followed by minimal surgical intervention.

REFERENCES

1. Pritchard DJ, Sim FH and Ivins JC: Fibrosarcoma of bone and soft tissues of the trunk and extremities. *Orthop Clin North Amer.* 1977;8:869-881.
2. Taconis WK and Van Rijssel TG: Fibrosarcoma of long bones. A study of the significance of areas of malignant fibrous histiocytoma. *J Bone Joint Surg (Br).* 1985;67:111-116.
3. Sadoff RS and Rubin MM: Fibrosarcoma of the mandible: a case report. *J Am Dent Assoc.* 1990;121:247-248.
4. Soares AB, Lins LH, Macedo AP, Pereira-Neto JS and Vargas PA: Fibrosarcoma originating in the mandible. *Med Oral Patol Oral Cir Bucal.* 2006;11:243-246.
5. Leibovitch I, Huilgol SC, Selva D, Richards S, Paver R. Basosquamous carcinoma: Treatment with Mohs micrographic surgery. *Cancer.* 2005;104:170-5.
6. Llorente JL, López F, Suárez C, Hermsen MA, Sinonasal carcinoma: clinical, pathological, genetic and therapeutic advances. *Nat Rev Clin Oncol.* 2014;11:460-72.
7. Jasna But-Hadzic / Klemen Jenko / Mario Poljak / Bostjan Kocjan / Nina Gale / Primoz Strojjan, Sinonasal inverted papilloma associated with squamous cell carcinoma. *Radiology and Oncology.* 2011;45:267-72.
8. Duthoy W. Postoperative intensity-modulated radiotherapy in sinonasal carcinoma: clinical results in 39 patients. *Cancer.* 2005;104:71-82.
9. Chen AM. Carcinomas of the paranasal sinuses and nasal cavity treated with radiotherapy at a single institution over five decades: are we making improvement? Int J Radiat Oncol Biol Phys. 2007;69:141-7.
10. Hoppe BS, Stegman LD, Zelefsky MJ, Rosenzweig KE, Wolden SL, Patel SG, Shah JP, Kraus DH, Lee NY. Treatment of nasal cavity and paranasal sinus cancer with modern radiotherapy techniques in the postoperative setting-the MSKCC experience. *Int J Radiat Oncol Biol Phys.* 2007;67:691-702.

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