

Carcinoma Nasal Cavity - An Audit Of The Patients Presented In Radiotherapy Department

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Abstract: Primary malignancies of sinonasal cavity are relatively uncommon, comprising approximately 3% of head and neck cancers, with maxillary sinus being most commonly involved. Only about 0.5% of all malignant neoplasm are limited to the nasal cavity. Squamous cell carcinoma is the most common histology observed, ranging from 50-60% of all sinonasal malignancy. Their proximity to vital structures such as the brain, optic nerves, and internal carotid artery pose significant challenges for their treatment and may be the source of significant morbidity to the patients. The treatment modalities are surgery followed by post operative radiotherapy with or without chemotherapy. Retrospective Analysis of patients of carcinoma Nasal cavity were analyzed who were treated in the department of radiotherapy. Six patients were registered between November 2010 and May 2014. Clinical profile and management techniques along with outcomes were analyzed.

The presenting age of patients were common in 5th decade (range-32-62yrs, median-50yrs), Male:Female ratio 2:1. All patients had histopathology of squamous cell carcinoma (well differentiated (50%), poorly differentiated (50%). The presenting signs and symptoms were nasal mass (100%), nasal ulcer (33%) and visual loss was not seen. Radiographic findings were nasal septal erosion (33%), lamina papyracea erosion (33%) and ethmoidal sinus extension (33%). One-third of patients had only biopsy while rest underwent surgery. All patients were treated with Radiotherapy. Residual lesion was present in patients who had undergone biopsy. All post operative patients were clinically with no evidence of disease. Nasal cavity cancers show better local control rates with surgery followed by post operative radiotherapy.

I. INTRODUCTION

Tumors of the Nasal Cavity are rare and are usually classified and reported jointly with tumors of the paranasal sinuses. Primary malignancies of sinonasal cavity are relatively uncommon, comprising approximately 3% of head and neck cancers, with maxillary sinus being most commonly involved. Only about 0.5% of all malignant neoplasm are limited to the nasal cavity. Squamous cell carcinoma is the most common histology observed, ranging from 50-60% of all sinonasal malignancies. The most common presenting symptoms documented for nasal cavity squamous cell carcinoma include nasal pain and epistaxis. Their proximity to

vital structures such as the brain, optic nerves, and internal carotid artery pose significant challenges for their treatment and may be the source of significant morbidity to the patients. The treatment modalities are surgery followed by post operative radiotherapy with or without chemotherapy.

II. MATERIALS AND METHODS

Retrospective Analysis of patients of carcinoma Nasal cavity were analyzed who were treated in the department of radiotherapy. Six patients were registered between November

2010 and May 2014. Clinical profile and management techniques along with outcomes were analyzed.

III. RESULTS

The presenting age of patients were common in 5th decade (range-32-62yrs, median-50yrs), Male:Female ratio 2:1. All patients had histopathology of squamous cell carcinoma (well differentiated (50%), poorly differentiated (50%). The presenting signs and symptoms were nasal mass (100%), nasal ulcer (33%) and visual loss was not seen. Radiographic findings were nasal septal erosion (33%), lamina papyracea erosion (33%) and ethmoidal sinus extension (33%). One-third of patients had only biopsy while rest underwent surgery. All patients were treated with Radiotherapy. Residual lesion was present in patients who had undergone biopsy. All post operative patients were clinically with no evidence of disease. See table.

Gender	Number of cases	Total percentage
Male	4	66
Female	2	33
Age	Number of cases	Total percentage
30-39	2	33
40-49	0	0
50-59	2	33
60-69	2	33
Smoking history	Number of cases	Total percentage
Positive	4	66
Negative	2	33
Histopathological grade	Number of cases	Total percentage
Poorly differentiated	3	50
Well differentiated	3	50
Presenting symptoms	Number of cases	Total percentage
Nasal mass	4	66
Ulceration	2	33
Nasal obstruction	0	0
Neck mass	0	0
Pain and epistaxis	0	0
Asymptomatic	0	0
Radiographic finding	Number of cases	Total percentage
Nasal septal erosion	2	33
Lamina papyracea erosion	2	33
Ethmoidal sinus extension	2	33
Surgery	Number of cases	Total percentage
Excision of primary plus ND	2	33
Excision of primary only	2	33
Biopsy only	2	33

Recurrence	Number of cases	Total percentage
Present	2	33
Absent	4	66

Table 1

IV. DISCUSSION

- ✓ In Antonia et al study tumor was more frequently seen in males than in females, in a ratio of 5 to 3.
- ✓ In our study Male:Female ratio 2:1
- ✓ Etiological factors in cancer of the nasal cavity are: atrophic rhinitis; nasal polypi; inhalation of dust in industries such as boot and shoe making, woodworking, and furniture making.
- ✓ Acheson considers tobacco snuffing a possible factor in the etiology of nasal cancer. He also find a latent period of 39 to 55 years in his epidemiological studies of carcinogenic factors.
- ✓ A possible contributing factor in this series was the habit of smoking cigars and cigarettes from early age.
- ✓ In our study patients presenting were between 5th and 6th decade (median-50yrs, range-32-62yrs).
- ✓ Smoking history is positive in 66% of cases.
- ✓ In Antonia et al study frequent presentation was ulceration of the nasal mucosa, reported in 52% of the cases, followed by nasal mass and nasal obstruction.
- ✓ In our study presenting signs and symptoms were nasal mass (100%), nasal ulcer (33%)
- ✓ Frazell & Lewis et al study, 81% cases were squamous or epidermoid cancers and 19% were adenocarcinomas.
- ✓ In our study histology was squamous cell carcinoma in all cases (poorly differentiated (50%), well differentiated (50%).
- ✓ In Frazell & Lewis et al study, bone destruction was diagnosed or suspected in radiographic examination in 59%, while only sinusitis was reported in 15.6%.
- ✓ In our study Radiographic findings were nasal septal erosion (33%), lamina papyracea erosion (33%) and ethmoidal sinus extension (33%).
- ✓ Radiotherapy was the treatment of choice for tumors of the nasal cavity in several of the reported series; others the combination of surgery and irradiation was choice.
- ✓ In Antonia et al series radiation therapy was employed as the main treatment modality in 85% cases, and for the management of recurrences in four of the six cases initially treated by surgery.
- ✓ In our study surgery was done in 66% of cases and in 33% only biopsy was done.
- ✓ 66% of patients received adjuvant radiotherapy of dose 45-50Gy in 25#@ 1.8-2 Gy/#.33% received definitive radiotherapy of dose 70 Gy in 37# @ 1.8-2Gy/#.
- ✓ Concurrent Chemotherapy was received in 66% (6-7 cycles).
- ✓ The overall 5-year survival of Bosch et al series was 56%, of which 49 % was achieved by means of radiation therapy alone, plus an additional 5%, salvage after surgical failure.

- ✓ Early lesions, had a very good prognosis with a 5-year survival of 91%.
- ✓ Considering the cases in which radiotherapy was the main treatment modality, including cases with neck metastases, 50%, were alive and free of disease 5 years or more after irradiation.
- ✓ In our study recurrence was seen 33% of cases, in which surgery was not done.
- ✓ Aykut.A.et al studied squamous cell carcinoma nasal cavity which showed that metastasis to cervical node or distant site on presentation is a poor prognostic factor.

V. CONCLUSION

Nasal cavity cancers show better local control rates with surgery followed by post operative radiotherapy.

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