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Original Article

Study Sarcomas of Facial Region in Bihar Population

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Abstract

Background: Sarcomas are malignant neoplasm derive from different tissues body. Although they are rare to occur proper and efficient treatment is mandatory, otherwise it will have poor prognosis.

Materials and Methods: Fifty-nine patients of different age groups having clinical and pathological symptoms of sarcoma were studied their socioeconomic status habits were also noted.

Results: 7 (11.8%) osteosarcoma occurred at mandible and maxilla, 6 (10%) mandible, 5 (8.4%) Ewing sarcomas were at mandible and maxilla, 10 (16.9%) located at 5th and 7th cranial nerves, 5 (8.4%) metastatic sarcomas were at palate and nasopharynx, 7 (11.8%) spindle cell sarcoma at maxilla, and 11 (18.6%) Kaposi sarcomas at mandible were studied.

Conclusion: As these sarcomas have tendency of recurrence, hence radiotherapy and/or chemotherapy treatment is uncertain, therefore surgery is the most reliable treatment for maxillofacial and oral sarcomas.

Key words: Chondrosarcoma, Malignant, Maxillofacial, Neoplasm, Neurogenic sarcoma, Osteosarcoma

INTRODUCTION

Sarcomas are malignant neoplasms derived from cells of mesenchymal origin. The originating tissue is diverse and includes bone, cartilage, muscular, fibrous, vascular fatty, and neural tissue. Sarcoma of faciomaxillary is rare tumors accounting for 4–10% of all sarcomas.[1,2] This indicates that rarity in the oral and maxillofacial region, because of their diversity of the originating tissue[3] and their rarity,[4] have been evaluated with clinical and pathological features and treated accordingly.

MATERIALS AND METHODS

Fifty-nine patients of different age groups visiting to maxillofacial department of Narayan Medical College and Hospital, Sasaram-821305, Bihar, were studied.

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Inclusion Criteria

The patients are confirmed sarcoma and referred by pathology department which were selected for the study.

Exclusion Criteria

Patients who have previously undergone surgery and having immune compromised disease were excluded from the study. Detailed history of every patient was recorded. Majority of the patients were middle socioeconomic status. Their habits were smokers, chewing tobacco, gutka, alcoholic, and unhygienic. The types of sarcoma were classified as per the pathological report and treated as per the concerned therapy and surgical intervention if needed. Duration of study was July 2016–June 2020.

Statistical Analysis

Different types of sarcomas with location are classified with percentage; the statistical analysis was carried out in SPSS software. The ratio of male and female was 2:1.

OBSERVATION AND RESULTS

Table 1, 7 (11.8%) had osteosarcoma in mandible and maxilla, 6 (10.1%) chondrosarcoma in mandible and maxilla, 5 (8.4%) Ewing sarcoma at maxilla and mandible, 10 (16.9%) neurogenic sarcoma in 7th and 5th

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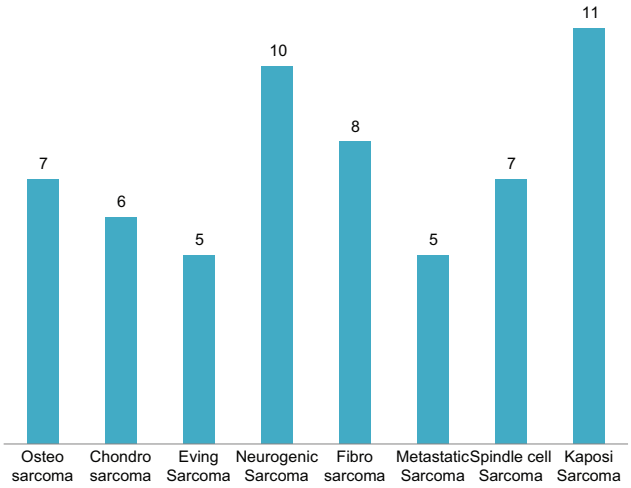
Table1: Prevalence of sarcoma in facial region (Total number of patients: 59)

S. No.	Types of disease	Common location	Number of patients	Percentage
1	Osteosarcoma	Mandible Maxilla	7	11.8
2	Chondrosarcoma	Mandible Maxilla	6	10.1
3	Ewing sarcoma	Mandible Maxilla	5	8.47
4	Neurogenic sarcoma	5th and 7th cranial nerves	10	16.9
5	Fibro sarcoma	Mandible	8	13.5
6	Metastatic sarcoma	Palate Nasopharynx	5	8.47
7	Spindle cell sarcoma	Maxilla	7	11.8
8	Kaposi sarcoma	Mandible	11	18.6



cranial nerves, 8 (13.5%) fibrosarcoma at mandible, 5 (8.4%) metastatic sarcoma at palate and nasopharynx, 7 (11.8%) spindle cell sarcoma at maxilla, and 11 (18.6%) Kaposi sarcoma at mandible.

DISCUSSION

In the present study of sarcoma of facial region in Bihar population, 7 (11.8%) had osteosarcoma in mandible and maxilla, 6 (10.1%) chondrosarcoma at maxilla and mandible, 5 (8.4%) Ewing sarcoma at mandible and maxilla, 10 (16.9%) neurogenic sarcoma at 5th and 7th cranial nerves, 8 (13.5%) fibrosarcoma at mandible, 5 (8.4%) metastatic sarcoma at palate and nasopharynx, 7 (11.8%) spindle cell sarcoma at maxilla, and 11 (18.6%) Kaposi sarcoma at mandible [Table 1]. These findings are more or less in agreement with the previous studies.[5-7]

As sarcoma of the facial region is rare, hence it was difficult to establish an ideal treatment, however, ultimately surgical innervations are the best treatment for sarcoma of any part of facial region. Wide resection with clear margins is very important factors for favorable survival. It was ascertained that resection margins were tumor free in frozen section taken during operation. Important advance in reconstructive surgery has been made and these advances enabled wide resection. However, the oral and maxillofacial regions include complex and vital structures and therefore wide resection is difficult at some sites, especially in maxilla. This could be reason that prognosis of maxillary sarcoma is poor in many cases.[8]

Effects of radiation therapy or chemotherapy on sarcoma are debatable.[9] It is reported that combined therapy of radiotherapy and surgery achieves recurrence free survival in majority of cases but many maxillofacial surgeons do not accept this adjacent therapy.[10] In some cases, radiotherapy was given pre-surgically in the patients with fibrosarcoma and plasmacytoma had good survival. However, patients with angiosarcoma, rhabdomyosarcoma, and liposarcoma had very poor prognosis. In children, tumors treated with radiation therapy or chemotherapy had late effects on vision, hearing, growth, and cosmetic appearance.[11] It is suggested that surgery alone is sufficient initial therapy for patients in whom complete resection is achieved.

SUMMARY AND CONCLUSION

The present study, Sarcoma in the facial region of Bihar population. It was noted that survival in patients with local recurrence is poor, therefore, by surgery as initial therapy is important to achieve favorable prognosis. When local recurrence occurs, surgical resection should be carried out if the recurrent tumor is resectable. Sarcoma in the oral or maxillofacial is rare disease hence least data are available in the literature. Hence, this study demands genetic, microscopic, and neurovascular study because muscles of face are subcutaneous, joints of teeth are ghomphosis, and temporomandibular joint differs structurally and functionally.

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