

**BONY EXPANSILE LESION OF MAXILLA AS PRESENTATION OF PRIMARY
HYPERPARATHYROIDISM**

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ABSTRACT

Introduction-Hyperparathyroidism is nowadays diagnosed early and asymptotically with improvement in biochemical and radiological procedure. Brown tumour represent terminal stage of remodelling processes during primary hyperparathyroidism. Mandible is most common site involved in head and neck region, maxillary involvement is extremely rare. **Material and Method-**19 Y F patient present with complaint of cheek swelling, Body ache. NCCT Face and CECT Neck was done on 64 slice MDCT scanner (Light speed VCT-XTE, GE medical system). **Result-** Patient presenting with expansile lesion in maxillary bone undergone surgery. On histopathological examination lesion show feature of Brown tumour. Retrospectively CECT Neck done which show lesion in left parathyroid gland. On biochemical analysis serum parathyroid hormone show value of 351.07 pg/ml. **Conclusion-**Young patient presenting with expansile lesion in facial bones should be evaluated for parathyroid lesion.

INTRODUCTION

Hyperparathyroidism is nowadays diagnosed early and asymptotically with improvement in biochemical and radiological procedures. Brown tumour represents terminal stage of remodelling processes during primary hyperparathyroidism. Mandible is the most common site involved in head and neck region. Maxillary involvement is extremely rare.

CASE HISTORY

19 year female presented to ENT OPD with chief complaints of swelling in left cheek and Body aches for 2 months Swelling was painful and insidious in onset.



HRCT PNS axial images shows well defined lytic expansile lesion in left maxilla projecting into the left maxillary sinus.



HRCT PNS coronal images shows well defined lytic expansile lesion in left maxilla projecting into the left maxillary sinus and partially obliterating the left nasal cavity.

Biochemical analysis evaluation shows

-Serum PTH-1607 pg/ml
 - Serum Calcium-14 mg/dl
 - Markedly raised Serum PTH and calcium level.
 Retrospectively CECT Neck was done which shows:



CECT Neck images show well defined heterogeneously enhancing nodule.

Surgical Notes

- After parathyroid adenoma excision, excision of brown's tumour of left maxilla was done.
- After Surgery Serum Parathyroid and calcium levels were markedly reduced

Serum PTH- 351.7 pg/ml

Serum calcium-8.4 mg/dl

DISCUSSION

Prevalence of brown tumour is 0.1 %.^[1]

- Brown tumour represents terminal stage of remodelling process during primary or secondary hyperparathyroidism.
- Although it is invasive in some instances however does not have neoplastic potential.
- It should be differentiated from true giant cell tumours of bone.^[2]
- Common site of tumour are long bones, pelvic girdle, clavicle, ribs and mandible. Tumour involving maxillae are rare.^[3]
- It is more common among person older than 50 years and women to men ratio is 3:1.^[4]

Radiographically

- Well-defined marginated expansile lytic lesions and may cause cortical expansion.
- Concurrent bone changes associated with hyperparathyroidism such as: Generalized demineralisation of medullary bone of jaws. Loss of lamina dura around roots of teeth, can help differentiate brown tumours from other processes.

Treatment of hyperparathyroidism is first step in management of brown tumour

- After treatment of endocrine abnormality, brown tumour may regress, and almost all radiographic changes tend to return to normal.
- Large brown tumour or persistent deformity may require operative intervention.³

Conclusion: Young patient presenting with expansile lesion in facial bones should be evaluated for parathyroid lesion.

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