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Original Research Paper

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PRIMARY TUBERCULOSIS OF ZYGOMATIC BONE: A RARE CASE REPORT

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ABSTRACT Although tuberculosis is a common entity in India but tubercular osteomyelitis of Zygomatic bone is rare. Here we are presenting a case of 15-year-old male presented with right sided facial swelling, CECT was suggestive of infective or neoplastic etiology. Patient underwent excision of mass via external approach which was sent for histopathological examination. Histopathology revealed tuberculosis and then patient was subjected to Anti- tubercular therapy to which patient responded well and improved.

KEYWORDS :

INTRODUCTION

Mycobacterium tuberculosis is the causative bacterial agent for TB which may affects a number of body systems like lungs (commonest site), lymph nodes and lymphatics, renal system, central nervous system, hepatic system, skeletal system, gastrointestinal system and oral cavity. Oral cavity TB found in 10–15% of all. [1] Tuberculous lesions of the oral cavity are quite rare; despite the high incidence of the systemic disease, they can be explained by *M. tuberculosis* inhibition by the salivary components.[2] Involvement of skull bones in tuberculosis is uncommon and whenever present it usually occurs in young people. [3] In our case report we have encountered a case of right sided zygomatic tuberculosis.

Case Summary

A 15 years old male presented with complaints of right sided facial swelling for last 5 months. Swelling was insidious in onset, progressive in nature. Initially was size of a pea and gradually increased to present size. There were no aggravating or relieving factors. It was not associated with pain, skin changes, any pus discharge. There was no history of trauma to face. Patient had history of loosening of clothes in last few months. There were no other complaints. On examination of the swelling around 3 x 3 cm single diffuse swelling present over right side zygomatic region. No scar, sinus, fistula seen. Overlying skin appears normal. No visible pulsations seen. Inspectory findings were confirmed on palpation. A single well defined non tender with normal temperature firm swelling palpated over right zygomatic region. It was fixed with regular margins. Overlying skin of the swelling was pinchable. There were no palpable pulsations. On auscultation no bruit heard. [Figure-1] FNAC was attempted from the swelling site which was suggestive of suppurative lesion. CECT face was done and was suggestive of soft tissue density mass in right zygomatic area which was anteriorly causing erosion of zygomatic arch extending to involve the masseter muscle likely infective or neoplastic pathology. After undergoing all blood investigations patient was subjected under GA. Surgery proceeded via external approach. Zygomatic bone was found eroded with granulation tissue around the bone, excision of mass along with granulation tissue done and sent for histopathological examination. Intraoperatively 1 ml white coloured pus was aspirated and sent for pus culture and sensitivity which suggested no growth after 48hours of incubation. To our surprise biopsy report for this patient showed tuberculous inflammation following which patient was subjected to antitubercular therapy. Standard 4 drugs/first line anti-tubercular regimen (rifampicin450 mg, pyrazinamide 1500 mg, isoniazid 300 mg, and ethambutol 800 mg) for 2 months (intensive phase), followed by isoniazid300 mg and rifampicin 450 mg (continuation phase) was given for 7months. Aspiration of creamy pus was done on two separate occasions. Patient was showing improvement with healing of the sinus in intensive phase. [Figure -2] According to the World Health Organization (WHO) recommendation of treatment for the tuberculosis of the bones is 9–12 month. [4]

DISCUSSION

Tuberculosis of zygomatic bone is difficult to diagnose as it is a rare disease. The cornerstone of diagnosis is to include this rare disease in differential diagnosis as due to its rare presentation clinicians are unaware of this condition leading to misdiagnosing and mismanagement. Malik and Gupta reported case of tubercular osteomyelitis of zygomatic bone in 10 years old boy. They did curettage under general anesthesia of the zygomatic bone and sent that for histopathology which came positive for tuberculosis and subsequently patient shifted on to antitubercular regimen and improved.[3] This condition can easily be confused with malignancy. Al-Hamzi Wain 2011 reported a case of tuberculosis of malar and zygomatic bone in a 33 years old young female. [4]

In 2021 Uppal et al reported case of post traumatic tuberculosis of zygoma in a 31 years old male patient. In their report they emphasized over the importance of histopathological examination and usage of modern techniques such as Tc-99 MDP bone scan and CB-NAAT test that helps in diagnosis of disease as it is challenging to diagnose this rare presentation of tuberculosis. They also concluded that with early detection and prompt initiation of an effective anti-tubercular regimen, tissue changes can be reversed without much destruction.[5]

In our case we did excision of right zygomatic mass along with granulation tissue which was sent for histopathology that suggested tubercular etiology following which patient shifted on antitubercular regimen and improved.

CONCLUSION

From our case we conclude that tuberculosis of facial bone is rare presentation which is a challenge for clinician to diagnose. Despite of its rare presentation it should be kept in differential diagnosis by clinician as it can be easily misdiagnosed with malignancy. Early diagnosis leading to early management is key for treatment of this disease.

A B

Figure 1 : A and B showing swelling over right cheek zygomatic region

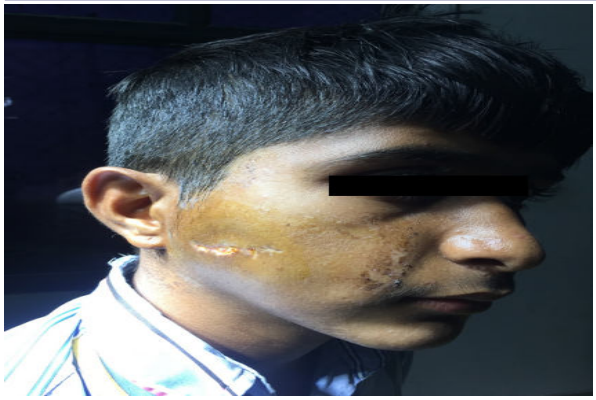

Figure 2 : Post operative healing in intensive phase of antitubercular therapy

REFERENCES

1. Andrade NN, Mhatre TS. Orofacial tuberculosis -a 16-year experience with 46cases. J Oral Maxillofacial Surg 2012;70:12–22.
2. McCarthy GM, Ssali CS, Bednarsh H, Jorge J, Wangrangsimakul K, Page-Shafer K. Transmission of HIV in the dental clinic and elsewhere. Oral Dis. 2002;8 Suppl 2:126–35.
3. Malik MK, Gupta RK. Tuberculous osteomyelitis of zygomatic bone. Ind J Tub. 2008;24(4):2008
4. Al-Hazmi WA. Tuberculosis of the malar and zygomatic bone: a case report. IntJ Health Sci 2011;5:197.
5. Uppal N, Hafeez A, Ansari HMN, Xavier F, Gupta Ak. Post traumatic tuberculosis of zygoma-An uncommon presentation. J Stomatology Oral Maxillofacial. 2021;