



Pre-Auricular Swelling of Tubercular Origin: A Dicey Diagnosis

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ABSTRACT

Preauricular sinuses are congenital malformations that usually occur at anterior margin of the ascending limb of helix of external ear. They are not rare anomalies of the ear, and as they are usually asymptomatic, that is the reason they are not frequently diagnosed.

Tuberculosis is one of the major infections that affect children and adults worldwide causing significant morbidity and mortality. They are most prevalent in extra pulmonary region with clinical presentation as lymphadenitis. The diagnosis of extra pulmonary tuberculosis is difficult as it neither presents with constitutional symptoms nor possibility of having a high degree of clinical suspicion. Here, is a rare case presented by an adult male with infected preauricular sinus coexisting with lymphadenitis in right preauricular region.

Key Words: *Preauricular sinus, extrapulmonary, tuberculosis, lymphadenitis.*

INTRODUCTION

Preauricular sinus is a common congenital external ear disease and is usually misdiagnosed as it is overlooked during clinical examination that usually occur at anterior margin of ascending limb of helix of the external ear⁽⁸⁻¹⁰⁾. They are not rare anomalies of the ear, as they are usually asymptomatic, they are not frequently diagnosed⁽¹⁰⁾. Its prevalence among Asian population is 4-6%⁽¹⁾. Usually, these go unnoticed and would require treatment when symptomatic⁽³⁾. Tuberculosis is one of the major infections that

affect children and adults worldwide causing significant morbidity and mortality^(5,6). Around 5-15% of tuberculosis have been reported among children while 20-30% of them have an extra pulmonary presentation^(1,5).

Lymphadenitis is the most common extra pulmonary form of tuberculosis that frequently involves lymph nodes mainly cervical, mediastinal and rarely axillary and inguinal nodes⁽³⁾.

Retroviral pandemic has brought an increase change in the epidemiology of both tuberculosis

and extra pulmonary tuberculosis^(1,3). The diagnosis of extra pulmonary tuberculosis is difficult as it neither presents with constitutional symptoms nor any possibility of having a high degree of clinical suspicion⁽¹⁾. Here, is a rare case presented by an adult male with coexisting infected preauricular sinus with lymphadenitis in right preauricular region.

CASE REPORT

30 year male reported with history of recurrent episodes of swelling in the right preauricular region since childhood off lately followed by discharge from the sinus. On clinical examination, 3x2cm tender, firm to hard swelling present in the right preauricular region with skin over the swelling being tensed and region around the swelling been inflamed, indurated with early palpable mass (**Figure 1,2**). Keeping in mind the differential diagnosis of Tuberculosis, points in favour to it were posed. Patient did not give any history of contact with tuberculosis or any other pre-existing systemic conditions. He gave history of febrile episodes with raised leucocyte counts. It looked to be a case of simple infected preauricular sinus. Hence, Incision and drainage of abscess with excision of the sinus tract was planned. As the patient had recurrent episodes of infection of the preauricular sinus since childhood with presence of plenty of fibrous tissue, the tract seemed to be merging with the drainage regions of preauricular lymph nodes. Hence, it seemed that both preauricular sinus abscess as well as lymphadenitis of preauricular lymph nodes coexisted in this patient as he even had an early palpable mass on examination. Now, the plan of action even included removal of the indurated mass. As a routine, specimen was sent for histopathological examination and reports were awaited. The twist in the tale was, the incised wound usually heals following the procedure if it was purely a case of infected preauricular sinus with lymphadenitis of preauricular lymph node. But in this case wound was not healing and persistently discharging which seemed suspicious.

To my surprise, the histopathology of the specimen was suggestive of tuberculosis (**Figure 3,4**). The patient was then registered under directly observed short course treatment category 1 and was advised to take this treatment for a period of 6 months. On follow up after a month of treatment, wound was healing showing good response to the therapy. Later, the patient was lost to follow up.

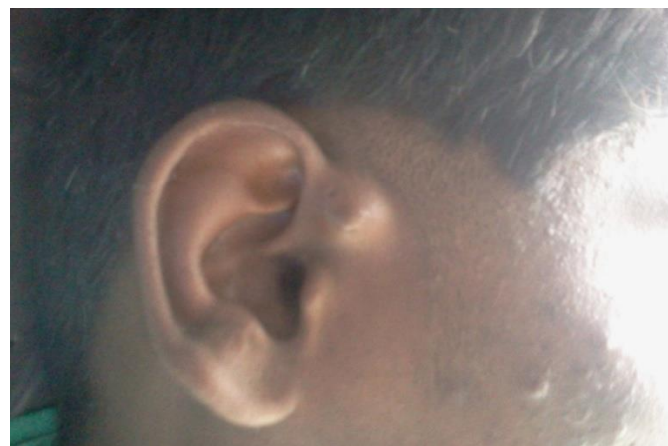


Figure 1: Gross appearance of swelling in right preauricular region



Figure 2: Gross picture (in closet) –a single 3x2 cm swelling in the right preauricular region with sinus and skin over swelling is tensed and region around swelling is inflamed. On closet also firm to hard swelling is appreciable at the same site.

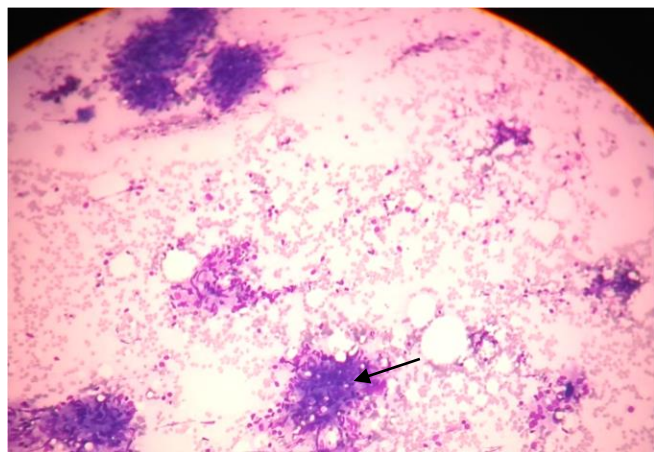


Figure 3: Photomicrograph showing necrosis with granuloma (arrow) from the excised specimen containing sinus tract embedded with inflamed lymph node mass in right preauricular region (May- Grunwald-Giemsa stain, X 40).

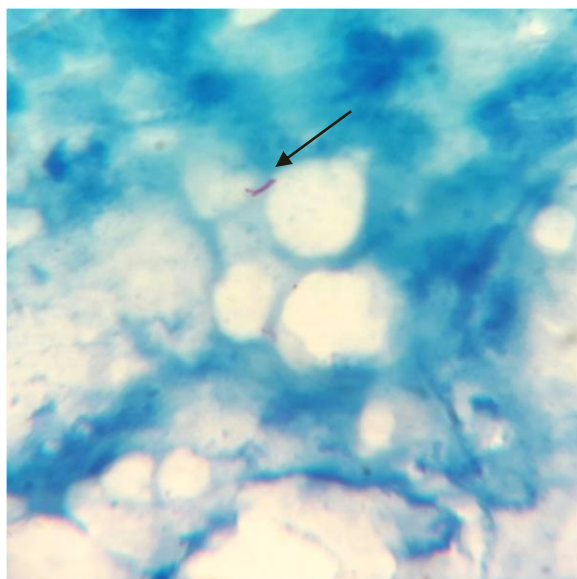


Figure 4: Photomicrograph showing acid-fast bacilli (arrow) from the excised specimen containing sinus tract embedded within inflamed lymph nodal mass from right preauricular region (Ziehl-Neelsen stain, X 100).

DISCUSSION

Preauricular sinus though being a developmental anomaly has a role of heredity through sporadic distribution⁽¹⁰⁾. If not infected it is frequently

asymptomatic and may be missed on routine ear examination^(7,8). They are prone to infection leading to preauricular sinus abscess caused by mainly *Staphylococcus aureus* and less commonly by *Streptococcus* and *Proteus* resulting in discharge, oedema, pain and when the sinus ostium is blocked pus accumulate leading to abscess formation^(8,10). It may also be complicated by spreading to surrounding structures such as pinna, temporomandibular joint and external auditory canal^(1,8,10). Clinical presentation of preauricular abscess is usually recurrent ear discharge with signs of inflammation^(6,8). Other congenital anomalies such as hearing loss or renal problems are associated with preauricular sinus^(2,8-10). Most symptomatic patients with preauricular abscess usually seek no medical attention as it is less troublesome and also lack of awareness of its presence, and there is paucity of medical literature regarding preauricular abscess^(1,3,12).

Extra pulmonary tuberculosis is defined as tuberculosis of organs other than lungs, that is pleura, lymph nodes, abdomen, genitourinary tract, skin, joints, bones^(4,6). It is more common in children. Tuberculosis of the superficial lymph node, which is referred to as scrofula is the most common entity in children^(4,5). The cervical lymph nodes are most commonly affected followed by axillary, inguinal and parasternal lymph nodes^(2,3). The involvement of these pre-auricular lymph node is rarely reported, accounting for 1% of all tuberculosis cases^(3,6). Involvement of preauricular lymph-node is usually secondary to tuberculosis due to its drainage areas like parotid, mandible, middle ear^(3,7). My patient was a 30 year old male with infected pre auricular sinus with coexisting lymphadenitis of preauricular lymph nodes. The literature search has revealed one case of pre-auricular lymphadenitis due to *Mycobacterium tuberculosis* from India⁽¹⁾. As per literature search, I have not come across any case of infected preauricular sinus coexisting with lymphadenitis of preauricular lymph nodes of tubercular origin. However, a case of cutaneous tuberculosis of pre-auricular area has been reported in a six year old

child, which showed a good response to anti-tubercular treatment⁽²⁾. Even this case, wound did not heal after surgery, as the patient had extrapulmonary form of tuberculosis of preauricular lymph nodes. The wound healed following antitubercular therapy, as per aforesaid statement. Usually, children acquire the infection from infected adults and history of contact is usually available in more than one third of the cases⁽⁴⁾. In this case, patient was an adult male with no history of contact to tuberculosis anytime. The clinical picture is often non-descriptive in extra pulmonary tuberculosis, where symptoms such as fever, loss of weight, loss of appetite and failure to thrive usually associated with it^(5,6,7), which was not present in my patient and he did not even have a congenital anomaly with infective etiology.

CONCLUSION

Firstly, infected preauricular sinus are commonly mistaken for acne, furunculosis, dermoids and sebaceous cysts as most health care providers are unaware of its existence and failure to conclude ineffectiveness of its treatment. Secondly, due to non-descriptive clinical findings and low burden of organisms, extra pulmonary form of tuberculosis of lymph nodes has led to diagnostic delay. But with increased awareness of uncommon manifestations of lymph node tuberculosis at atypical sites and drainage areas for tuberculosis, this condition can be diagnosed early. In this case, as both the conditions were coexisting, diagnosis seemed simple clinically, dicy postoperatively and confirmatory histopathologically.

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