



Case Report

Multiple Cold Abscesses

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Abstract

Study has been shown that Tubercular lymphadenitis represents 30-40% extra pulmonary tuberculosis in word wide. And it is also most common extra pulmonary manifestation of tuberculosis. This condition is more prominent in children. It is also known as scrofula or cervical tuberculous lymphadenitis. All tuberculosis in body caused by an organism *Mycobacterium tuberculosis*, a genus of acinetobacteria. They are characteristically Acid fast, aerobic.

Tubercular lymphadenitis being the most common form with most common lymph node involved are cervical group of LN but multiple node can be involved. Study has been shown that even after advancement of diagnostic tool for tuberculosis at all levels it is still difficult to diagnose the disease because of its insidious onset and unusual pattern of presentation and so as treatment and if neglected they may progress to form an abscess and if not treated there occurs formation of sinus.

It has been seen that extra pulmonary Tuberculosis are mostly presents with solitary cold abscess but we presents a case here with multiple cold abscess , initially suspected for bacterial abscess but found to be tubercular lymphadenitis.

This case was undertaken for study, a 8yr old male child who was presented to us with multiple cold abscess which was for prolonged period for over 4-6 months and only associated symptoms were intermittent low grade fever. We performed lymph node fine needle aspiration cytology (FNAC) of both left cervical LN and abscess and diagnosed as tubercular lymphadenitis on evidenced by FNAC lymph node cytology finding granulomatous lesion .Recently role of aspiration cytology has been recognized as initial screening procedure. According to WHO, ATT for 6 month regimen is enough for tubercular lymphadenitis.

Keywords: cold abscess, extrapulmonary, lymphadenitis, scrofula, tuberculosis, cervical lymph node.

Introduction

It has been evidenced that tuberculosis is exists since antiquity. Its existence worldwide is equal in all part of the region. But because of newer advanced diagnostic tools and technique and easy

implementation of these techniques in all levels of a nation and easy reach out for rural population as well urban population so that it has been easy for tracing, diagnosing and treating the disease. And also there is various programs in national (NTEP-

national TB elimination program) and international levels for elimination of tuberculosis. But in mid 80s tuberculosis case has been in decreasing trends in most of the developed countries as of study. But the cases remain prevalent in developing countries like India, although there has been increase in cases in developed countries due to immigration from endemic countries, increased rate of HIV infection. In developing countries decreasing trends of prevalence and incidence has been static, as a lot of difficulties arises in between such as low socio-economic status, malnutrition, illiterate, overcrowding, poor or unaware of health education or national programs or health facilities. As of now its existence in worldwide is due to unusual pattern of clinical presentation with increasing prevalence of extrapulmonary tuberculosis. Tuberculosis can affect almost all parts of organ of body with tubercular lymphadenitis being the most common form.

Case

A 8yr male child, presented to us with chief complain of multiple swellings over different parts of body over last 4-6 months, with associated low grade intermittent fever, there is no evening rise of temperature or associated with rigor and chills, usually subsides on medication. Sites involved are back of neck, right arm close to axilla, medial aspect of left thigh and just above right ankle joint. when developing, initially swellings started as tiny nodular lesion, painful, reddish, tender to touch and feeling of temperature over the swelling but gradually progress to a big boggy mass and nontender. There was associated dry skin and peeling of skin.

There is no history of productive cough and cold, chest pain, haemoptysis, respiratory distress, headache, vomiting, pain or swelling abdomen, bone pain, convulsion and night sweats.

Patient has no history of contact with any open case of tuberculosis. Also no family history of tuberculosis. Child belongs to a low socio

economic family with single mother who is a daily labourer.

On examination, child looks cachexic. vitally stable. Having bilateral significant cervical group of lymph nodes, discrete, non tender, not fixed to underlying or overlying tissue and mild pallor. Chest is clear and no abnormal sound detected.



Fig.1. yellow arrow shows boggy Swellings of back of necknode swelling



Fig.2. yellow arrow shows left cervical lymph

All other systemic examination are found to be within normal limit. On basis of above clinical examination initially we suspected for bacterial abscess and treated with antibiotics. All routine investigations done. CBC reports shows mild anemia and other routine investigation found to be normal. During hospital stay child even developed a new lesion over right arm. It suggests that even after antibiotics new lesions are developing so it also gives clue to think about tuberculosis. As clinical features were chronic in nature and not subsiding with antibiotics, so we went for investigation in line of tuberculosis. Mantoux test found to be negative ,chestxray shows no signs of pulmonary tuberculosis and CBNAAT also not detected for pulmonary tuberculosis. We also ruled out other extra pulmonary tuberculosis like tuberculosis of bone by doing xray spine, which shows no gibbus or kypho-scoliosis. Also ruled out other most common associated immunodeficiency infection like human immunodeficiency virus (HIV). From above all mentioned investigation there was no clue for diagnosis. so we gave a thought to drain out the collection from those swellings and planned to send for cytology, CBNAAT, gram stain if pus is found, Zn stain for AFB and culture and sensitivity. Pus collected from swelling does not reveal any organism by gram stain & zn stain.culture came negative for both bacteria and AFB. This came out to be sterile pus. So there was strong suspicion for tubercular in origin, and we finally planned for the fine needle aspiration cytology (FNAC). FNAC done from both swelling and cervical (left) lymph node. And luckily the result came out to be Tubercular aetiology, where cytosmear from lymphnode shows granulomatous lesions, from swelling cytosmear shows lymphocytic predominant cells and areas of necrosis. finally we reached in a diagnosis as tubercular lymphadenitis which presents atypically. Child Is then sent for NTEP registration and started ATT regimen on the day FNAC report came out and got discharged with

advice to complete the ATT for period of 6 month follow up then after.



Fig.3. black arrow shows swelling right arm



Fig.4. black arrow shows new swelling over left medial aspect of thigh.

Discussion

Even in this 21st century tuberculosis has more impact on society, worldwide. Usually the disease is more prevalent in developing countries like india, but it has been seen that there is also huge impact of tuberculosis in developed countries, and it is because of immunosuppressive conditions like, HIV and immigration of population from endemic countries. In a study by choudhury *et al.*, most of 33 cases tuberculosis adenitis diagnosed in a south London hospital were of non british origin.

In pediatric age group 10% cases are pulmonary tuberculosis and other 90% cases are found to be extrapulmonary, so it is reverse in adult age group where 90% are pulmonary and 10% cases are extra pulmonary. Extra pulmonary tuberculosis being the most common in children, from where tubercular lymphadenitis is the most common variant. Other extra pulmonary tuberculosis next to lymph node TB are CNS TB, Bone TB. Jha *et al.*, noted a much higher incidence of lymph node tuberculosis (63.8) percent, compared to present study(48.87)percent.

In this case study the child presented with a prolonged course of clinical features. Child belongs to a low socio economic family, illiterate, malnutrition, overcrowding and other social factors. It has been seen in previous studies that poverty, illiterate, overcrowding, which is more favoured for having tubercular lymphadenopathy because of their late presentation to a health facility, i.e. prolonged time from initiation of symptom to presentation.

Fine needle aspiration cytology is been used since recent years for diagnosis of tubercular lymphadenopathy. This technique even though invasive procedure but still cost effective, easy to perform and highly diagnostic accuracy and reports can be availed in time. In this case cytospin shows from lymph node, multiple granulomatous lesion with caseous necrosis, which is highly suggestive for lymph node tuberculosis. Nemish *et al.*, found the sensitivity of FNAC is as low as 46 percent. Chao *et al.*, and Hussain and Rizvi have noted higher FNAC sensitivities of 88 and 83 percent, respectively.

Conclusion

However lymph node tuberculosis is the being most common variant, but due to its prevalence in most of under privileged population, presentation is late because of unawareness about the disease in these group of people. so chronicity will always be there and some time it has gone for complicating to form a sinus, when they presents to any health facility. But it can be diagnosed with

FNAC, the technique is easily available, cost effective and free. Even though the procedure is invasive, it gives highest diagnostic accuracy of tubercular lymphadenitis. The treatment is same as of pulmonary tuberculosis, 6 month of ATT regimen as per NTEP guideline.

Finally 6 month ATT with pyridoxine 10mg daily given to the child. On follow up the child recovered fully from all cold abscess. Any long duration Abscess was thought to be in line of Tubercular in origin.

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