## Manage TB National Institute for Research in Tuberculosis, Chennai

# Lecture – 24 Approach to diagnosis of Extra – Pulmonary Tuberculosis Case Discussion

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### Disclaimer

- This is a role play developed as part of the course curriculum for *Manage TB An online course for Doctors*
- The participants have enacted the roles given to them
- The case discussed does not refer to any existing patient but has been developed as part of the course curriculum
- The investigations (x-rays/lab reports) used in this case scenario belong to patients treated in NIRT. Their identity have been anonymized.

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Sir, Good morning.

Good morning Dr. Vignesh.

Sir, I have a case to discuss with you. Is this an appropriate time Sir?

Yeah, this is a right time. We can discuss about that case now.

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Manage TB

### Case description

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- · 20-year-old Female
- College student
- Gradually increasing painless swelling on the left side of lower neck for 1 month, size = 2 cm not responded to a course of broad spectrum antibiotics
- Tiredness 2 months
- · No co-morbid conditions

Sir, we have a 20 year old young women, college going student with presenting complaints of as swelling in the left side of her lower neck for the past 1 month and generalize tiredness for the past 2 months sir. The swelling has not responded to a course of antibiotics and she does not have any other comorbid conditions.

Ok, did you collect any additional details of history or do any clinical examination in this patient?

Yes Sir, detailed history reviews that she has been having this swelling for the past 1 month which is painless and gradually increasing in size, particularly located in the left side of her lower neck Sir. She also has complaints of low grade intermittent fever associated, loss of appetite and loss of it for the past 1 month sir.

She does not have any exposure TB patient or any previous TB treatment Sir. Her HIV status is unknown and she has no immunosuppressive conditions. Her clinical examination reveals that she has 2 to 3 enlarged lymph nodes; each 2 centimeter in size firm and consistency, mobile and non tender which are matter located in the lower part of her cervical fusion.

I have also checked for other lymph nodes elsewhere in the body which turned out to be negative. There is no hepatosplenomegaly in her abdomen and there are no local infective focus elsewhere in the oral cavity, ear or the nose Sir.

Ok, based on the history and clinical examination findings, what do you think could be a presumptive diagnosis? How will you proceed further?

Sir, she satisfies the definition for presumptive TB of lymph node sir. So, I would like to go with fine needle aspiration for cytology and send the samples for gene Xpert to detect mycobacterium tuberculosis and its rifampicin sensitivity. I will also do a chest x ray just in case to rule out the lung pathology and check out whether she has hilar or mediastinal lymphadenopathy, Sir.

Do you think serological test for TB has any role in the diagnosis of TB lymph node?

No sir, if I could recall from your last lecture, you have said that the serological test are not recommended for diagnose in case of extra pulmonary TB or pulmonary TB, Sir. Even the W H O and the Government of India as per the gazette notification in June 2012 has banned these serological test from the market Sir.

The serological test are not to be used for diagnosis of TB.

Yes Sir, Sir, can I make a diagnose of TB lymph node if either the cytology or the gene Xpert turned out to be positive?

Yes, based on the cytology report or the gene Xpert results which turns to be positive for M T B, you can start her on TB treatment.

So, what if either of these tests are negative Sir?

If either of these tests turns out to be negative, then you have to go for diagnostic biopsy.

Sir, should I take any precautions for sending the sample for biopsy?

Yeah. So, when you send the biopsy specimens for doing a bacteriological examination for smear, culture or gene Xpert, you have to send an steroid container without any addictive sub preservatives. If you add formulent to this, the bacteria will get killed whereas if you want to send the (Refer Slide Time: 04:00) biopsy specimen to histopathology lab, you have to send it in a container with formalin solution ok. So, you have to be careful about this.

Sir, I will take the necessary precautions. Sir, what if all these test turned out to be negative sir?

So, if all these test turns out to be negative, then you have to evaluate for alternate diagnosis.

Sir thank you. I will just go and the get started with the investigations and the treatment sir.

Ok, now hope you understand how should we approach case of TB lymph node.

Yes sir.

Can you summarize the discussions that we had now?

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### Key messages - Diagnosis of TB lymph node

- Fine needle aspiration for cytology and Xpert MTB/RIF or culture for M.tb have to be ordered for diagnosis of TB lymph node
- Serological tests are not recommended for the diagnosis of TB
- Diagnostic biopsy specimen has to be sent for Histology, Xpert MTB/RIF, smear, culture for M.tb

Definitely Sir. Fine needle aspiration for cytology and the Xpert for detecting Micro Bacterium Tuberculosis and rifampicin sensitivity or culture for mycobacterium tuberculosis have to be order for diagnosis of TB lymphs node. Serological test are not recommended for the diagnose of TB. Diagnostic biopsy specimen has to be sent for histology, gene Xpert M T B and rifampicin sensitivity, smear and culture for mycobacterium tuberculosis.