Unusual extra intestinal manifestation of an obligatory pathogen

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Abstract

Fever producing microbes have varied clinical presentations with variable positive lab investigations which serve as an eye opener to the clinician as well as to the clinical lab managers. Case report: 30 year old male with irregular fever of 1 year duration was investigated and treated outside but not relieved of the symptom. The next year he visited our hospital with the same symptom of fever and was investigated. The investigation revealed a totally different arena and helped the patient to get cured of the illness.

Keywords: Clinical Presentation, Extra Intestinal Manifestation, Enterobacteriacea, Fever, Lab diagnosis.

1. Introduction

Fever producing microorganisms are omnipresent and colonize animals and human beings. Many clinical infections have varied presentations and majority present initially with the rise in temperature which on investigation gives rise to a totally different diagnosis. Here we present a case, which was an eye opener to a varying clinical scenario.

2. Case Report

30 year old male had history of fever on and off with head ache from Jan-2014. He was diagnosed to have enteric fever and treated elsewhere. After 6 months the symptoms recurred and he was further investigated and everything was non-contributory except ultra sound which revealed hepatomegaly. Again he was treated outside.

In December 2014, when he visited our hospital, he had fever and was investigated again.

3. Results

His CBC was within normal limits, Widal test TO-1:320, TH-1:320, in blood culture Salmonella typhi was isolated. It was sensitive to Ceftriaxone, Cefotaxime and Imipenem, resistant to ciprofloxacin and ampicillin.

Patient was started on cefotaxime, after which the patient’s fever subsided. But patient came back with the complaint of becoming breathless on exertion like playing, climbing staircase etc after a week.

Patient was hospitalised and investigated again.

X-ray chest (Fig: 1) and CT scan (Fig: 2) revealed pleural effusion. Pleural fluid was negative for malignant cells. Glucose 28mg/dL, Protein 5.7g/dL, chloride 144mM/L.

This complication should have been precipitated due to the improper drug intake of the patient. Therefore we hospitalized the patient.

CT scan showed mild pneumonitis in posterior basal segment on lower lobe right side. Mild to moderate left sided pleural effusion with minimal inter lobar effusion.

PFT: Table: 1

Pleural aspiration was done under strict aseptic precaution and the pleural fluid was analysed. Gram stain showed the presence of occasional pus cells and gram negative bacilli. The sample was also subjected for culture which after 48 hours of incubation grew Salmonella typhi with same susceptibility pattern as the blood culture.
**Table 1: Interpretation of PFT**

<table>
<thead>
<tr>
<th>PFT</th>
<th>Pre-medication</th>
<th>Post-medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>FVC</td>
<td>2.01</td>
<td>2.04</td>
</tr>
<tr>
<td>FEV1</td>
<td>1.82</td>
<td>1.85</td>
</tr>
<tr>
<td>FEV % FVC</td>
<td>90.88</td>
<td>90.62</td>
</tr>
</tbody>
</table>

1. Pre-medication: slight expiratory flow limitation. Moderate to highly distinctive restrictive shape of curve
2. Post-medication: Moderate to highly distinctive restrictive shape of curve

Patient was treated with IV fluids, antibiotic Cefotaxime for 10 days. Patient was asymptomatic at the time of discharge.

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**Fig 1:** X-ray chest showing Pneumonitis and Pleural effusion

**Fig 2:** CT Scan chest

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**4. Discussion**

Fever is a common clinical presentation with varying pathogenic causes, in which bacterial aetiology is an important contributing factor. *Salmonella* infection has 4 clinical presentations such as gastroenteritis, bacteraemia/septicaemia, enteric fever, carrier state [1]. Each one of the clinical infection has its own characteristic which has to be handled as per the clinical features and diagnostic laboratory reports.

Our patient who had enteric fever for almost a year did not have any proper documents to confirm the presence of enteric fever. When he visited our hospital, a tertiary care centre, he presented again with fever and was investigated thoroughly which confirmed the presence of enteric fever with positive blood culture and Widal test.

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**5. Conclusion**

Extra intestinal manifestation of Enterobacteriaceae member can be complicated, confusing but as a prudent clinician, the awareness and appropriate investigation procedure will lead to final and correct diagnosis.

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**6. References**