Clinical Presentation and Diagnosis of Tuberculosis and COVID-19 among ambulatory adult HIV positive patients in rural KwaZulu-Natal, South Africa

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Introduction

• COVID-19 pandemic has dominated global attention, impacting pre-existing public health concerns such as Tuberculosis (TB).
• Clinical presentation of TB and COVID-19 overlap, creating additional diagnostic challenges.
• Real world data on TB and COVID-19 diagnosis is important for understanding the impact of the pandemic on vulnerable populations.

Objectives:

• To describe the clinical presentation and the diagnosis of TB and COVID-19 among HIV positive adults in a high burden HIV-TB setting.

Methods

• Prospective study including adult ambulatory HIV positive patients presenting with at least one TB symptom between October 2020 and September 2021
• All patients received clinical examination, AlereLAM, sputum Xpert MTB/RIF, culture (sputum or urine) and chest X-ray. Optional SARS-CoV2 PCR testing (nasopharyngeal or oropharyngeal) testing was offered.

Definitions

• TB/COVID-19 overlapping symptoms: cough and fever.
• TB symptoms only: night sweats and weight loss.
• Additional COVID-19 symptoms: sore throat, rhinorrhea, otalgia, dysgeusia, anosmia, myalgia, arthralgia, fatigue, headache, abdominal pain, vomiting or diarrhoea.

Results

• 128 patients were investigated for both TB and COVID-19 with a median CD4 count 483 cells/µL [IQR 239-733] (Figure 1).
• Symptoms: 124 (96.9%) TB/COVID-19 overlapping symptoms, 4 (3.1%) TB symptoms only. 65 (50.8%) had additional COVID-19 related symptoms.
• 4/9 (44.4%) patients diagnosed with COVID-19 presented with at least one additional COVID-19 related symptom (Table 1).
• COVID-19 was diagnosed in:
  • 9/124 (7.3%) presenting with TB/COVID-19 symptoms
  • 0/4 not presenting with COVID-19 symptoms

Additional Table

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<th>TB only N=30</th>
<th>TB/COVID-19 coinfection N=3</th>
<th>COVID-19 only N=6</th>
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<td>TB symptoms only</td>
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<td>0</td>
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<tr>
<td>TB/COVID overlapping symptoms</td>
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<td>6</td>
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<tr>
<td>Additional COVID-related symptoms</td>
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</tbody>
</table>

Conclusion

Differentiating COVID-19 and TB based solely on clinical presentation is challenging.

Additional diagnostic tests are required to aid prompt diagnosis and reduce morbidity and mortality.