## CHALLENGES IN DIAGNOSIS AND MANAGEMENT OF NON-TUBERCULOUS MYCOBACTERIAL INFECTION: REPORT OF TWO CASES.

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Non-tuberculous mycobacteria (NTM) can cause a wide range of infections, from affecting the lungs (pulmonary) to the other parts of the body (extrapulmonary) like skin, soft tissue, surgical wounds, and areas around catheters and implants. A significant challenge is that NTM infections are often misdiagnosed as tuberculosis. This case series highlights these difficulties by exploring two patient experiences. The first case involves a 48-year-old man who developed a prolonged fever following coronary artery bypass grafting (CABG) surgery. He also presented with enlarged liver and spleen (hepatosplenomegaly). Imaging studies revealed a large saccular aortic ascending aneurysm. While surgery (ascending aortic and proximal arch replacement) addressed the aneurysm, the definitive diagnosis came later. Histopathological and microbiological examinations ultimately revealed the culprit to be NTM. In second case, a 56-year-old male underwent a laparoscopic bilateral total extraperitoneal inguinal hernia repair. However, he experienced persistent serous drainage from the incision site post-surgery. To investigate the cause, discharge was collected and subjected to various tests: Microscopy, Gram stain, Ziehl-Neelsen (ZN) stain, GeneXpert for MTB. Initially, the ZN stain appeared positive, leading to the initiation of anti-tuberculosis medications. However, the patient failed to respond to this treatment. Therefore, a PCR test for Non-tuberculous Mycobacteria (NTM) was performed. This test returned positive, confirming the diagnosis of NTM infection rather than tuberculosis. Our Aim is to raise awareness among healthcare professionals through these case reports. A high degree of suspicion is necessary for accurate diagnosis as NTM infections often mimic the symptoms of other bacterial infections, making them difficult to distinguish.

Keywords: Non-Tuberculous Mycobacterial infection, Challenges in Diagnosis and Management

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