A CASE REPORT: PELVIC ABSCESS BY NON-TUBERCULAR MYCOBACTERIUM: A VERY UNUSUAL PRESENTATION

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ABSTRACT
Most abscesses are caused by a bacterial infection like staphylococcal bacteria and streptococcal bacteria. Non tubercular Mycobacterial (NTM) is very rare infection for pelvic abscess. Most of time NTM causes abscess in breast and skin, lymph node, there may be rout of entry was infected syringe. Treatment with ATD can cure the disease.

KEYWORDS: Non Tubercular Mycobacteria (NTM), Abscess, TB-PCR, pelvis, gluteal muscle.

INTRODUCTION
NTM comprises more then 135 different species that are widely distributed throughout the environment, the NTM were not widely recognized as a human disease until the late 1950. In 1959, Runyon reported a classification on the base of pigmentation and speed of growth, this classification become less useful with the development rapid molecular method of diagnosis.¹¹ Non Tuberculosis Mycobacteria or Atypical Mycobacteria, these are mycobacteria they are also known as the environmental Mycobacterias, that are biologically distinct from Mycobacterium Tuberculosis, Mycobacterium bovis and Mycobacterium leprae. Traditionally, these acid fast bacilli(AFBs) were thoughts to be primarily saprophytic organism that were not pathogenic in human. These NTM are environmental bacteria which is present in soil and water and milk. Although the Atypical mycobacteria cause disease in many animals, animal to human and human to
human transmission have not been proven and probably do not occur. Route of entry usually
inhalation. However, many are now commonly recognized human pathogens, in both
immunocompromized and normal hosts.[2] Disseminated infection typically occurs at CD4+
Lymphocyte count fall below 50 cell/µl, Literature is not much available for gluteal abscess
due to NTM. Although nontuberculous mycobacteria can affect all organs of the body, the
condition primarily affects the lungs. Symptoms typically progress slowly.[3]

CLINICAL PRESENTATION
A 48 year old male, smoker and farmer was admitted in medicine ICU with complained of
fever 1 month, lower abdominal pain 1 month, gluteal muscle pain , anemia, irrelevant talk 10
days, disoriented 5 days, Clinical Examination Patient was febrile, disoriented with irrelevant
talks, with Bilateral rhonchi present and vitals are normal. Immediately necessary
investigation was done and Arterial Blood Gas analysis found markedly deranged .Other
investigation were not remarkable. Patient put on mechanical invasive ventilation.

On taking medical History, patient had history of seizure since one year and he was regularly
taking treatment with intramuscular injection for acute attack, mean while patient develop
gluteal muscular pain, pain increasing gradually. Patients past medical history were
significant; he had taken Anti Tubercular treatment 15 year back but no species specific
culture was done. Treatment was for 9 (3+6) month with daily and DOTS and patient was
cured. Rfampicin, Isonizid, Ethambutol, Pyrazinamide(DOTS), no other significant medical
history present. On detailed investigations, PaO2 36 mmhg, PaCO2 54 mmhg ,PH 7.31,Na+
173mmol/l, K+2mmol/l, wbc 29100, HGB 7.5 g/dl ,X-ray chest not suggesting active disease.
Ultra Sonography abdominal and pelvis suggestive of cystic mass of about 73.5x70.4 mm in
size, MRI Lumbo-Sacral Spine suggestive diffuse circumferential disk bulge at L4-5 level
indenting anterior thecal sac. MRI Pelvis was suggestive of large pelvic collection abutting
rectum with linear communication extending from pyriformis muscle to right gluteal region
7.2x7.8 cm in size suggestive of Tubercular Abscess (Figure 1). NCCT head was suggestive
of diffuse cerebral atrophy. Pelvic Abscess aspirated and Real Time PCR (Mycobacterium
Tuberculosis PCR) was done and Non tuberculous Mycobacteria detected(NTM).HIV status
of patient was negative. The patient was put on therapy for NTM: Rifabutin, clarithromycin,
Ethambutol, Moxifloxicin along with pipericillin tazobactum ,and supportive and
symptomatic . Treatment for NTM should be till one year beyond conversion of culture A
combined therapeutic approach, including surgical drainage, debridement, and prolonged
treatment with combined antimicrobial agents, has been used in some cases of atypical mycobacteria. In some cases based on clinical assessment, successful treatment requires aggressive debridement of all infected subcutaneous tissues and skin. Consultations with infectious disease specialists, surgeons, and pulmonary specialists may be necessary.

Figure 1: MRI Pelvis showing large pelvic collection abutting rectum with linear communication extending from pyriformis muscle to right gluteal region 7.2x7.8 cm in size.

**DISCUSSION**
Most abscesses are caused by a bacterial infection. However, they can very occasionally develop due to an infection by viruses, fungi or parasites. Few case of gluteal tuberculosis abscess reported due to inadvertently injected BCG a patient with bladder cancer. Intramuscular injections are routinely performed by nurses and ancillary staff, are not familiar with the proper technique and the potential complications occur. One of the complications is secondary abscess formation. A pelvic abscess most commonly follows acute appendicitis, or gynecological infections or procedures. It can also occur as a complication of Crohn's disease, diverticulitis or following abdominal surgery. An abscess
contains infected pus or fluid, and is walled off by inflammatory tissue. A pelvic abscess may grow quite large before making a patient ill, or causing obvious signs, and so may be easily missed. In males the abscess is usually located between the bladder and the rectum. In this case portal of organism entry was by the contamination of syringe from environment. Abscess develop in gluteal muscle in extend to pelvis.[6] Most gluteal abscesses occur as a result of staphylococcal bacteria and streptococcal bacteria. The most common organisms found in NTM infections included Mycobacterium fortuitum, M. avium, M. abscessus, and less commonly, M. chelonae. NTM should be considered as a source of infection when standard bacterial culture results are negative. However, lymphatic, skin, or soft tissue, and bone or joint involvement as well disseminated infection.[7] Non tubercular Mycobactrial (NTM) is very rear infection, NTM organisms can cause breast infections.[8] Skin and soft tissue infections usually occur after traumatic injury, surgery, or cosmetic procedures, which may expose a wound to soil, water, or medical devices occasionally contaminated with environmental mycobacteria. Although the epidemiology and clinical presentations of NTM responsible for skin and soft tissue infections differ, some species (MAC, M. kansasii, M. xenopi, and M. marinum) have been reported worldwide, whereas others (But pelvic abscess due to NTM very unusual. Here repeated trauma by needle (IM Injection) is cause of infections,( M. fortuitum, M. chelonae, M. abscessus, M. wolinskyi, M. goodii, M. porcinum) Subcutaneous abscesses, cellulitis. NTM infections may be acute, sub acute, or late-onset. Interestingly. The most common NTM organisms found in these infections included Mycobacterium fortuitum, M. avium, M. abscessus. A pelvic abscess may grow quite large before making a patient ill, or causing obvious signs, and so may be easily missed. In country like INDIA where are lots of people are being treated by unauthorized, the chances of infection by the NTM should rule out. NTM infections involving the musculoskeletal system are uncommon. Osteoarticular infection, However, when they do occur, These are usually acquired by direct inoculation of the pathogen from an environmental source or a contiguous infection focus as a consequence of surgical procedures, penetrating trauma, injuries, or needle injections. Lymphadenitis Localized lymphadenitis most commonly affects children; peak incidence occurs at 1–5 years of age. The route of infection is hypothesized to be by way of the lymphatic vessels that drain the mouth and pharynx.[9] The most frequently isolated species is Mycobacterium avium complex (MAC), followed by M. scrofulaceum, M. malmoense, and M. hemophilum. However, a growing number of previously unrecognized slow-growing mycobacteria have been implicated with increasing frequency in rep.
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