

# 於心臟術後非結核分枝桿菌傷口感染:個案報告及文獻回顧

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## **Sternum Wound Infection Caused by Nontuberculous mycobacteria After Cardiac Surgery : Case report and review of literature**

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### Introduction:

Discussed soft tissue infections due to NTM, which was often associated with treatment in health care facilities, both inpatient and outpatient and have followed various procedures. In spite of most NTM disease is assumed to originate from environmental NTM, postoperative sternal wound infection with concomitant bacteremia caused by nontuberculous mycobacterium is rare.

### Case report:

This 86 y/o female had medical history of CAD post operation of CABG 2015.07 in US.

And she was informed the risk of NTM infection by US surgeon 3 years ago.

However,

A wound at anterior wall was noted in 2020, abscess culture and infection survey were performed at the first time to visit Plastic OPD. Abscess culture was negative finding, however, elevated CRP was found.

Because of newly developed abscess formation, the patient admitted for further survey.

During the hospital course from 4.27 to 5.14, we used three-combined antibiotics treatment with Tazocin, Tigecycline and Azithromycin. Meanwhile, TB survey was done but there was no positive report.

For the sternal wound management, operation of debridement was performed on 5.12.

Under relative stable condition, the patient discharged with oral form antibiotics-

clarithromycin plus Doxycycline.

Finally, post CABG wound poor healing related to Mycobacterium avium complex infection was proved by the tissue culture report on 06.01. The sternal wound was healing well under the used of clarithromycin plus Doxycycline. The following antibiotic treatment was shifted to clarithromycin and Ethambutol due to MAC was proved.

#### Discussion:

NTM is distributed widely in the environment and contaminate municipal water supply and are resistant to sterilizers. Not every NTM species can cause human infections but some can cause surgical wound infections due to improperly sterilized instruments. Although MAC organisms are the most commonly isolated NTM in the United States, the most common of NTM species causing SSTIs are rapidly growing mycobacteria (RGM). But in our case, the patient was diagnosed of MAC infection rather than rapidly growing mycobacteria.

There is no guideline regarding the treatment of atypical mycobacterial infection and duration of treatment is also unclear. In the literature, many times in addition to medical treatment, incision and drainage of abscess may be required.

#### Conclusion:

NTM infection should be suspected in post-surgical patients with wound infection. If a high index of suspicion for NTM infection, initial surgical debridement was necessary. In spite of medical treatment with a combination of clarithromycin and Doxycycline had prescribed. And operative specimens analysis, including histopathology, bacterial and mycobacterial cultures should be performed.

The most important is that attention to the strict aseptic precautions. Because NTM cannot be eliminated from the hospital environment, NTM should be considered in all cases of nosocomial infection.