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Nontuberculous mycobacteria

Nontuberculous mycobacteria in the skin and other soft tissues. Revision of a period of ten years in a third level hospital (Spain)

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INTRODUCTION

In the last few years, we have been attending to an increasing number of non-tuberculous mycobacteria (NTM) in the health area of Santiago de Compostela (458.759 inhabitants).

Our objective is to study the microbiological, histopathological and epidemiological characteristics of skin and soft parts infections caused by NTM, their associated factors and their clinical significance.

METHODS

Retrospective study of NTM isolations in skin and soft tissues samples carried out from August 2005 to August 2013. Data sources: Microbiology Information System (OpenLab) and the electronic clinic history of Galicia (IANUS). Statistical analysis with SPSSv.20. The microbiological techniques used for diagnosis were auramine staining and the growth in liquid media (MGIT, Bactec 960, Becton Dickinson) and solid culture of Coletos ©. The identification was carried out by phenotypic and genotypic methods (GenoType © Mycobacterium CMAS, Hain Lifescience). For diagnosis, the criteria from the Infectious Diseases Society of America (IDSA) 2007 were applied.

RESULTS

During those 10 years of study, 18 strains were isolated: *Mycobacterium marinum* (7/18) 38,89 %; *Mycobacterium chelonae* 33,33 % (6/18); and *Mycobacterium abscessus*, *Mycobacterium avium* complex, *Mycobacterium lentiflavum* and *Mycobacterium malmoense* 5,56 % (1/18), concerning 18 patients.

14 of them fulfilled the IDSA criteria for NTM disease (77,77%). The average age was 44 (range 3-84), of whom 50% were male. In those 14 patients, the following isolations are carried out: *M.marinum* 50 % (7/14), *M.chelonae* 35,71% (5/14), *M.abscessus* 7,14% (1/14) and *M.malmoense* 7,14%(1/14).

As predisposing factors, the following were found: contact with marine animals in 14,26% of the cases (2/14), both because of *M.marinum* and 7,14% (1/14) immunosuppression because of leukopenia and immune neutropenia (*M.chelonae*). The entry way was unknown in 66,25% of the cases (9/14), related to cosmetic procedures in 21,43% (3/14) and regarding trauma in 14,26 (2/14). The injuries were mostly located in the extremities, with a percentage of 64,29% (9/14); followed by upper body injuries in 28,57% of the cases (4/14) and neck injuries in 7,14% (1/14). Anatomic-pathological analysis revealed the presence of non-necrotizing granulomas in 50% (7/14) of the patients; necrotizing granulomas in 21,43% (3/14); 14,26% were not analyzed (2/14), and lichenoid dermatitis and linfocitary and histocytic inflammation reaction in 7,14% (1/14), respectively. Every patient received combined antibiotic treatment. Besides, 35,71% (5/14) of the patients received surgical treatment.

CONCLUSION

The diagnosis of skin and soft tissues infections requires a close collaboration between clinicians and microbiologists; even more important in our environment, because of the absence of predisposing factors and unknown entry ways.