Abstract

Objective The present work studied molecular typing methods used for Mycobacterium tuberculosis characterization in order to learn about their advantages, disadvantages and discrimination power as regards the implementation of tuberculosis surveillance and control programs. Methods To analyze the discrimination power of each method we studied articles that included Hunter-Gaston discrimination index (HGDI) values or data allowing their calculation. Results The highest discrimination power was registered for LM-PCR followed by FLiP and 15-loci MIRU. The most frequently used methods showed an HGDI of 0.9491, 0.9519 and 0.8630 for 12-loci MIRU, RFLP-IS6110 and spoligotyping, respectively. Conclusion M. tuberculosis isolates molecular characterization requires at least two molecular markers to discriminate non related isolates, as well as previous analysis to their implementation.

Keywords

Tuberculosis, Mycobacterium tuberculosis, molecular epidemiology, genotype, DNA, Polymorphism, Restriction Fragment Length.