

DNA FINGERPRINT ANALYSIS OF DRUG RESISTANT *MYCOBACTERIUM TUBERCULOSIS* STRAINS ISOLATED IN THE CZECH REPUBLIC

L. Rigouts¹, M. Kubín², M. Havelková², F. Portaels¹

¹Institute of Tropical Medicine, Antwerpen, Belgium

²National Institute of Public Health, Prague, Czech Republic

SUMMARY

DNA fingerprints were established in 12 drug resistant and 12 susceptible *M. tuberculosis* strains collected from patients residing in Prague, Czech Republic. The Restriction Fragment Length Polymorphism (RFLP) technique was based on the detection of the insertion sequence IS6110 in *Pvu*II digested chromosomal DNA. All investigated strains possessed at least 5 copies of IS6110 ranging from 5 to 15 copies in the drug resistant isolates and 5 to 11 copies in susceptible isolates. Three multidrug resistant strains displayed identical fingerprints (5 bands), and two strains resistant to pyrazinamid had the same banding pattern (12 bands). The remaining isolates differed either in number or location of the IS6110 copies. Thorough epidemiological analysis did not furnish proof of direct contact among these patients.

Key words: *Mycobacterium tuberculosis*, restriction fragment polymorphism, RFLP, DNA fingerprinting, resistance to anti-tuberculosis drugs

Address for correspondence: M. Kubín, M.D., National Institute of Public Health, Šrobárova 48, 100 42 Prague, Czech Republic