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P1598 Antimicrobial susceptibility testing of rapidly growing Mycobacteria isolated in a university hospital, central Greece

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Background: Nontuberculous rapidly growing mycobacteria (RGM) are emerging pathogens that affect both immunocompromised and immunocompetent patients and have been associated with a wide variety of infections. Approximately 90% of RGM infections are caused by *M.abscessus*, *M.chelonae* and *M.fortuitum.* Identification to the species level is important since antimicrobial susceptibility pattern is variable within RGM species. The aim of this study was to investigate the antimicrobial susceptibility patterns of the most common RGM species isolated in a University Hospital of Central Greece (serving an area of 1.000.000 inhabitants) during the period 2009-2014.

Materials/methods: Sixty-nine clinical isolates of RGM (40 *M. fortuitum*, 20 *M. chelonae*, 9 *M. abscessus*) obtained from different patients was studied. Identification to the species level was performed by a commercial molecular assay (Genotype CM/AS, Hain Lifescience). Antimicrobial susceptibility testing (AST) was performed by broth microdilution method using SENSITITRE CAMHBT (RAPIDMYCOI, TREK Diagnostics Systems), according to the manufacturer instructions. Plates were incubated at 30°C± 2°C in ambient atmosphere for 3-5 days. *M.fortuitum* and *M.abscessus* isolates was reincubate for up to 14 days in order to detect inducible resistance to clarithromycin. CLSI M24-A2, 2011 guidelines were used to interpret the results.

Results: The % resistance rates are presented below:

Antimicrobial agents	***M.fortuitum*** (40 isolates)	***M.chelonae*** (20 isolates)	***M.abscessus*** (9 isolates)
Clarithromycin	11(27.5%)*	1(5%)	1(11.1%)*
	29(72.5%)**		4(44.4%)**
Moxifloxacin	2(5%)	8(40%)	6(66.7%)
Ciprofloxacin	2(5%)	2(10%)	3(33.3%)
Amikacin	2(6.7%)	1(5%)	2(22.2%)
Tobramycin	10(25%)	2(10%)	2(22.2%)
Doxycycline	22(55%)	16(80%)	8(88.9%)
Linezolid	8(26.7%)	1(5%)	3(33.3%)
Cefoxitin	4(10%)	15(75%)	2(22.2%)
Imipenem	4(10%)	10(50%)	7(77.8%)
Trimethoprim/Sulfamethoxazole	3(7.5%)	20(100%)	9(100%)
*Incubation 3-5 days ** Incubation 14 days			

Conclusions: Antimicrobial susceptibility patterns of RGM in our region show high resistance rates. Although the correlation between *in vitro* susceptibility and *in vivo* clinical response remains subject of debate, it is advisable to perform AST prior to therapy of severe infections due to RGM.