

EV0967

ePoster Viewing

Mycology

**Correlation between classical and molecular methods to identify moulds from clinical samples**

A. Alastruey-Izquierdo<sup>1</sup>, E. Mellado<sup>1</sup>, T. Pelaez<sup>2</sup>, J. Peman<sup>3</sup>, M.S. Zapico<sup>4</sup>, M. Alvarez<sup>5</sup>, J.L. Rodriguez-Tudela<sup>1</sup>, M. Cuenca-Estrella<sup>1</sup>

<sup>1</sup>National Centre for Microbiology- ISCIII, Majadahonda- Madrid, Spain

<sup>2</sup>Hospital Universitario Gregorio Marañón, Madrid, Spain

<sup>3</sup>Hospital Universitario La Fe, Valencia, Spain

<sup>4</sup>Hospital Universitario Donostia, Guipuzcoa, Spain

<sup>5</sup>Hospital Universitario Central de Asturias, Oviedo, Spain

**Objectives:** To analyze the correlation between morphological and molecular identification of moulds.

**Methods:** Three hundred and twenty three strains isolated from a population based survey study performed in thirty Spanish hospitals were analyzed. The identification by morphological methods was performed in each hospital. The molecular identification was performed in the reference laboratory. Internal Transcribed Spacer regions were sequenced for all strains. In addition part of the beta tubulin or elongation factor alpha 1 genes were sequenced for *Aspergillus* spp., *Scedosporium* spp. and *Fusarium* spp. strains. The correlation by morphological and molecular methods was assessed.

**Results:** Two hundred and thirteen strains (65.9%) were correctly classified by morphological methods. Eighty-nine strains (27.6%) were correctly identified to genus level by morphological parameters but, of these, 47 (14.6%) were identified as a different species than by molecular methods while the other 42 (13%) strains were identified only to genus level. Nine strains (2.7 %) were classified in a different genus by morphological and molecular methods. One strain was correctly classified as "mucoral" although the identification to species or genus level was not reported. Eleven strains (3.4%) were reported by the hospitals as "non identifiable", "non sporulating" or "mould".

**Conclusion:** Classical methods were unable to classify to species level up to 34% of the strains analyzed in this study. Most of the strains that were not correctly identified belonged to cryptic species of *Aspergillus* and *Scedosporium* that can have different susceptibility profiles, and mostly categorized as resistant. In samples isolated from deep infections additional tools like, molecular identification or antifungal susceptibility profile should be used for a correct management of the patients.