

<p><b>MICOLOGIA</b> <b>Monitorização</b> <b>Ambiental</b> <b>POSTER (M18)</b></p> <p><b>NOTAS:</b></p>	<p style="text-align: center;"><b><i>ASPERGILLUS</i> AND <i>PENICILLIUM</i> IN THE AIR OF A HOSPITAL USING VIABLE AND NON-VIABLE CAPTURE METHODS</b></p> <p><b><sup>1</sup>R.Tormo Molina, <sup>1</sup>S. Fernández Rodríguez, <sup>2</sup>A. Gonzalo Garijo &amp; <sup>3</sup>I. Silva Palácios</b></p> <p><sup>1</sup>Universidad de Extremadura, Facultad de Ciencias, Badajoz, España. ratormo@unex.es; santiferro@unex.es</p> <p><sup>2</sup>Hospital Infanta Cristina, Departamento de Alergia, Badajoz, España. magonzalog@telefonica.net</p> <p><sup>3</sup>Universidad de Extremadura, Escuela de Ingenierías Agrarias, Badajoz, España. insilva@unex.es</p> <p><i>Aspergillus</i> and <i>Penicillium</i> are some of the fungi with the smallest spores (conidia), with great production as well as being among the most dangerous for human health. Indoors in hospitals, they are usually monitored by viable methods. Nevertheless, to understand their indoor presence it is necessary to know their outdoor concentration and to use non-viable methods that capture all kinds of propagules, even though in this case the two genera are indistinguishable morphologically.</p> <p>Samples were taken in the Hospital Infanta Cristina of Badajoz (SW Spain) from April-2007 to March-2009, weekly in spring and fortnightly the rest of the year for a total of 60 samples. Five sampling sites were selected, one outdoors and four indoors (an isolated room and a ward on each of the ground and third floors). Two volumetric personal sporetraps were used, one capturing propagules on petrolatum white as adhesive and the other on a Petri dish with SDA as growth medium. Data were expressed as spores/m<sup>3</sup> in the first case and CFU/m<sup>3</sup> in the second.</p> <p>The total average concentrations of <i>Aspergillus</i> and <i>Penicillium</i> were 116.7 spores/m<sup>3</sup> outdoors and 56.1 spores/m<sup>3</sup> indoors, and 8.2 CFU/m<sup>3</sup> outdoors and 6.9 CFU/m<sup>3</sup> indoors. <i>Penicillium</i> CFU were about twice as abundant as <i>Aspergillus</i> CFU. There were no statistically significant differences between years or between outdoor and indoor concentrations, or between the four indoor samples. Between seasons, there were statistically significant differences only for <i>Aspergillus</i> CFU. There was a statistically significant correlation in the temporal variation of the spores and the sum of <i>Aspergillus</i> plus <i>Penicillium</i> CFUs.</p> <p>Outdoor and indoor concentrations of <i>Aspergillus</i> and <i>Penicillium</i> were similar, with the apparent greater outdoor spore abundance not being statistically significant. Except for <i>Aspergillus</i> CFU, there were no clear seasonal patterns. Comparing the two sampling methods, the spore counts captured with the non-viable method were from 8 to 14 times greater than the viable method CFU counts since very many <i>Aspergillus</i> and <i>Penicillium</i> spores do not grow on the growth medium used, although also other fungus spores might have been included in the <i>Aspergillus-Penicillium</i> spore type. In general, <i>Aspergillus</i> and <i>Penicillium</i> are little affected by room isolation and seasonality.</p>
--	---