

Article

Multi-Step Pathogenesis and Induction of Local Immune Response by Systemic *Candida Albicans* Infection in an Intravenous Challenge Mouse Model

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Abstract: Different murine species differ in their susceptibility to systemic infection with *Candida albicans*, giving rise to varied host immune responses, and this is compounded by variations in virulence of the different yeast strains used. Hence, this study was aimed at elucidating the pathogenesis of a clinical *C. albicans* isolate (HVS6360) in a murine intravenous challenge model by examining the different parameters which included the counts of red blood cells and associated components as well as the organ-specific expression profiles of cytokines and chemokines. Kidneys and brains of infected mice have higher fungal recovery rates as compared to other organs and there were extensive yeast infiltration with moderate to severe inflammation seen in kidney and brain tissues. Red blood cells (RBCs) and haemoglobin (Hb) counts were reduced throughout the infection