SYSTEMIC *CANDIDA PARAPSILOSIS* INFECTION AND ANTIBODY RESPONSE IN AN EXPERIMENTAL MODEL

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Abstract: Systemic *C. parapsilosis* infection and the antibody response during infection was evaluated in a rat model of infection. Sprague-Dawley rats were injected intravenously with two different doses (1 X 106 or 1 X 108) of *C .parapsilosis* blastoconidia. Animals were sacrificed beginning 7 days after inoculation until 5 weeks post-inoculation and their organs were cultured to identify systemic fungal infection. Blood was taken at intervals of 3 to 7 days throughout the study period and the IgM response was determined through immunoblotting sera against *C. parapsilosis* cytoplasmic protein antigens. No deaths occurred in the animals given either inoculum doses. Organ culture showed that the liver was the main target organ for this infection. Recovery of yeasts from liver, kidney, spleen and heart showed a decrease by the end of the experimental period with a more rapid decrease observed in the animals given the lower inoculum dose. Immunoblotting showed a generally low level of IgM against *C. parapsilosis* cytoplasmic antigen, with a slight increase in antibody production noted around 9 to 14 days post-inoculation. A 55 kiloDalton antigenic component appeared to be immunogenic in the infected animals. Overall, it could be seen that *C. parapsilosis* has low virulence and its cytoplasmic proteins do not elicit a major antibody response in infected animals.