The cytotoxic T cells may contribute to the in situ immune response in Jorge Lobo's disease human lesion

Clivia Maria Moraes de Oliveira[1], Juarez Antonio Simões Quaresma[1], Arival Cardoso de Brito[1], Mirian Nacagami Sotto[2] and Carla Pagliari[2]
[1]Universidade Federal do Pará, Brazil
[2]Universidade de São Paulo, Brazil

Jorge Lobo's Disease (JLD) is a cutaneous chronic granulomatous disease caused by the pathogenic fungus *Lacazia loboi*. It is characterized by a granulomatous reaction with multinucleated giant cells and high number of fungal cells. In order to contribute to the comprehension of immune mechanisms in JLD human lesions, it has been studied the cytotoxic immune response, focusing on TCD8+ and NK cells and granzyme B. Forty (40) skin biopsies of lower limbs were selected and an immunohistochemistry protocol was developed to detect CD8+ T cells, NK cells and Granzyme B. In order to compare the cellular populations, a protocol has been performed to visualize TCD4+ cells. Immunolabeled cells were quantified in 9 randomized fields in the dermis. Lesions were characterized by inflammatory infiltrate of macrophages, lymphocytes, epithelioid and multinucleated giant cells with intense number of fungal forms. There was a prevalence of CD8 over CD4 cells, followed by NK cells. The results suggest that in JLD the cytotoxic immune response could represent another important mechanism to control *Lacazia loboi* infection. It can be suggested that, although CD4+ T cells are essential for host defense in JLD, CD8+ T cells could play a role in the elimination of the fungus.

Biography

Clivia Maria Moraes de Oliveira is an Associate Professor in Clinical Dermatology at the Federal University of Para, Brazil. She has received Bachelor's degree from the Medical School of State University of Para, Brazil and a Master's degree in Tropical Medicine from the Federal University of Para, Brazil. She has completed her Internal Medicine Residency and Fellowship in Dermatology at the Santa Casa de Misericordia do Para, Federal University of Para, Brazil in 1996. She is currently pursuing a Dermatology Doctorate degree from University of Sao Paulo, Brazil.