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Humoral and cellular immune responses of a murine model against Corynebacterium pseudotuberculosis antigens

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Humoral and cellular immune responses were both found to be operative in five groups of Balb/c mice following two subcutaneous inoculations with different antigens of C. pseudotuberculosis. These antigens included toxoid, bacterin, bacterin-toxoid with and without oil adjuvant in addition to the live cell of C. pseudotuberculosis. The responses were assessed, twenty days after the 2nd immunization. Serum antibody levels were determined in an enzyme linked immunosorbent assay (ELISA). Cellular immune responses to C. pseudotuberculosis antigens were measured by detection of gamma interferon (IFN-gamma) in spleen cell culture media of the immunized mice, using commercial mice enzyme immuno-assay kit. All mice were challenged 2 weeks after the last dose of immunization with live C. pseudotuberclosis (2x10(5) CFU/mouse). Protection levels were observed with different degrees between the immunized mice groups.