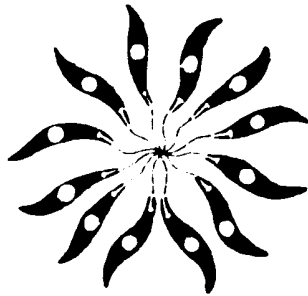


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CIRCULATING ANTIGEN OF TOXOPLASMA GONDII IN SERA OF PATIENTS WITH AIDS.

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Toxoplasmosis of the central nervous system is a frequent and severe opportunistic infection in patients with acquired immunodeficiency syndrome (AIDS). As the prevalence of *Toxoplasma gondii* is high in many parts of the world and as any chronic infection may become a disseminated and life threatening toxoplasmosis in an immunodeficient host, an accurate diagnosis and immediate chemotherapy are essential. Unfortunately, the diagnosis may be rather difficult as conventional serological tests for antibody detection do not yield conclusive results. Commonly, only low anti-toxoplasma IgG titers can be demonstrated in sera of AIDS patients whether they suffer from an acute toxoplasmosis or from a chronic one. Specific IgM antibodies are apparently not detectable at all. Other diagnostic methods, particularly trials for isolation of the parasite from large amounts of blood or from brain biopsies may involve considerable risks. Therefore, there is a strong need for alternative immunological techniques; the detection of parasite antigens circulating in serum (cag) seems to be useful for diagnostic purposes. We have established an ELISA for the detection and measurement of cag in sera. Patients with HIV-infections are now routinely and regularly tested for specific IgG, IgM, and cag. In about 15% of the sera from patients with a fully developed AIDS an antigenemia was detected (2 to 200 pm antigen/ml serum). IgG titers were low in almost all cases, IgM antibodies could not be detected at all. There was a good correlation between clinical findings (such as fever, headache, encephalitis and/or the clinical diagnosis "toxoplasmosis") and cag demonstration. Advanced investigations are now carried out on the structure of the cag isolated from AIDS-sera in order to get more information concerning the mode of cag formation and the significance of its demonstration for the prognosis of toxoplasmosis in patients with AIDS.