

Free-Living Amebas

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The Free-Living Amebas have been recognized since 50 years ago, producing meningoencephalitis with poor prognosis usually with post-mortem diagnosis. *Neigleria* has produced acute hemorrhagic meningoencephalitis in young healthy population without any complication, especially in some regions of Europe and the USA. Its dissemination is nervous. *Acantamoebas sp*, more than 200 cases have been worldwide recognized and 50% of them are immunocompromised hosts; produces granulomatous meningoencephalitis and the dissemination is hematogenous. Due to a late diagnosis and lack of suspicious, there are no satisfactory treatments to control these situations.

During the past years, 3 species of acantamebas have been associated with keratitis and the CDC has reported an increasing number of cases with this complication in association with the use of contact lenses. Some cases have been reported in Latin American countries, as in Peru where 12 cases of keratitis due to acantamebas have been recognized. The oral treatment (itraconazol) and with ophthalmologic drops (tobramicin, propamidine isothionate) applied every hour permits to recover and preserve the cornea, in other cases the patient has to undergo a transplantation of the cornea. Surprisingly, this keratitis is not disseminated to the CNS.

In 1990 a new family was described and classified in 1993 as *Balamuthia mandrillaris*, actually, more than 70 cases have been recognized in association with this new family. The USA reported 3 cases, Canada reported some isolated cases; in Latin America, Mexico has reported some cases, Venezuela 2 cases; and in Peru in our hospital, we have seen 32 patients during the past 15 years. Other hospitals in Peru have also reported cases. The clinical pattern describes a chronic inocule in the skin, in the perinasal region with painless plate; in the pathological anatomy shows granulomatous reaction with multinucleous giant cells. A small group of patients have the same ulcerative extra-facial lesion. Both show invasion to the CNS within 2 to 24 months, with 100% of mortality despite of the administration of multiple treatments (amphotericin, liposomes, pentamirine, itaconazol, metronidazol, etc.) The report of the autopsy of these patients describes disseminated perivasculitis in the CNS.

In conclusion, *keratitis due to acantameba and meningoencephalitis due to Balamuthia mandrillaris* are emerging diseases that require extensive research, specially to look for an adequate treatment.