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Entamoeba histolytica*: Trophozoite and cyst stages inhibition by *Bifidobacterium longum

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Entamoeba histolytica is a protozoan parasite, identified as the causative agent of amoebiasis since 1875. Amoebiasis is a parasitic infection of the intestine; it is common in tropical areas of the world where sanitation is poor, allowing food and water supplies to be exposed to fecal contamination. *E. histolytica* has four stages: trophozoite, precyst, cyst and metacyst; trophozoite is the invasive stage and the cyst is the infective stage. Treatment for uncomplicated cases of amoebiasis generally consists of a ten-day course of metronidazole, however this drug has many undesirable side effects in the human, so it is necessary the search for new therapeutic alternatives; on the other hand WHO has recommended the use of probiotics for the development of therapies for microbial interference (MIT). The probiotics are live micro organisms which, if ingested assisting in the development of the microbial flora of the intestine, normalized digestive functions and stimulate the humoral and cellular immunity. In this work, the objective was to evaluate the biological activity of thelyophilized extracellular metabolites of *Bifidobacterium longum* cultivated in the presence of glucose and sucrose, on the stage of trophozoite and cyst of *E. histolytica* under axenic conditions *in vitro*. The results obtained show that the extracellular factors of *B. longum* possess inhibitory activity on the stage of trophozoite and cyst of *E. histolytica*, and such activity is enhanced when used as prebiotic sucrose, which suggests to us that in the presence of this carbohydrate could have increased production of metabolites with antiamoebic activity.

Biography

Barrón González M P is Chemist, Bacteriologist and Parasitologist since 1997, Master of Science in Microbiology since 2005, Doctor of Science in Microbiology in 2007 at the Universidad Autonoma de Nuevo Leon, México. He conducts research in antibiotics in medically important microorganism (emphasis on probiotics and protozoan pathogens). He is Professor of Cell Biology. She has 9 articles published in international refereed journals or indexed (more than 25 citations). She was awarded Best research of the year by Secretaría de Salud del Estado de Nuevo León, México (1997 at 2013).

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