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## Myeloperoxidase role in Amebic liver abscess in a Hamster model treated with ascorbic acid

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Ascorbic acid removes hypochlorous acid and other free radicals, golden hamster (*Mesocricetus auratus*) were treated with Ascorbic acid and were inoculated with *Entamoeba histolytica* trophozoites. In this article we will review the MPO role in the amebic liver abscess (ALA) evolution in hamsters treated with ascorbic acid. Two animal groups were formed: (1) Animals that received an intrahepatic inoculation of 1X10<sup>6</sup> *E. histolytica* trophozoites and were sacrificed at 3, 6, 12 hours post-inoculation (Hepatic lesion group); (2) Animals with oral administration of 800 mg/kg of Ascorbic acid every 24 hours during the previous three days before the inoculation of the 1X10<sup>6</sup> *E. histolytica* trophozoites (hepatic lesion+ascorbic acid treatment group). The animals of every group were sacrificed, the size and characteristics of the hepatic lesions were determined, and serum samples were taken, as well as samples from hepatic tissue, this was performed to quantify gene expression and the MPO activity in the hepatic tissue. Ascorbic acid treatment in the ALA susceptibility model in hamsters, induce different changes in the ALA percentage, as well as gene expression and MPO activity, probably due to HOCl removal and free radicals present in the amebic hepatic lesion. Although an increase in MPO gene expression was observed, it did not surpass the basal control level, indicating that the ALA has a significant influence in the MPO gene expression. This could indicate that ascorbic acid is a free radical collector that protects hamsters from liver damage by *Entamoeba histolytica* and that it does not affect the MOP.

### Biography

Maricela Gómez Salvador is a Medical student, studying 12<sup>th</sup> semester of Medicine in Escuela Superior de Medicina del Instituto Politécnico Nacional, with 4 years in the program Beca de Estímulo Institucional de Formación de Investigadores (BEIFI). She currently holds a rotating internship in the Hospital General Tacuba ISSSTE, having collaborations in the Centro Medico Nacional Siglo XXI, with publication of article in the national magazine of the IMSS.

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