Background and aim: Amoebiasis caused by Entamoeba histolytica is still mentioned as one of the major health problems in developing countries. Since the immune response during human amoebiasis has not been profoundly studied we tried to evaluate cytokine production in patients suffering from amoebic colitis.

Methods: A case-control association study was carried out on 62 subjects, including 31 patients with amoebic colitis and 31 age, sex and geographic region-matched healthy controls. Serum levels of IL-12, IFN-γ, IL-13 and IL-5 were measured by solid-phase sandwich enzyme linked immunosorbant assay.

Results: Serum levels of IFN-γ, IL-12, IL-13 and IL-5 were higher in the patients with amoebic colitis than healthy controls, but these differences statistically significant only for IL-5 (P=0.04) and IL-13 (P=0.014). Stratification of patients according to gender revealed a significant elevated of IL-13 in men than women (P=0.04).

Conclusion: It is proposed that in human amoebic colitis, developing Th2 response which presents with increasing in IL-5 and IL-13 in the early stage of disease, acts as a double blade sward.