

Anti-Ova Activity of *Momordica Charantia* Seeds Against *Ascaris lumbricoides*

Reitzel Joyce O. Gabat, Maricar B. Garces, Maria Patricia C. Gregorio, Ferdinand E. Mendoza
Adventist University of the Philippines

Abstract

Bitter gourd (*Momordica charantia*) is a popular vegetable in Southeast Asia not only as table fare but also as traditional medicine for many ailments ranging from diabetes to intestinal parasitic infections. The combination of saponins, alkaloids, flavonoids, and tannins in bitter gourd is believed to exert anthelmintic effects. A number of studies have demonstrated that its seeds and leaves target adult and larval stages of a number of both free-living and parasitic worms. However, it is yet to be demonstrated whether the seeds have activity against ova of parasitic nematodes. To determine anti-ova activity, 23 fresh stool samples containing fertile ova of *Ascaris lumbricoides* were treated with ground bitter gourd seeds. Egg embryonation rates were then measured and compared after three weeks of incubation in soil. Results show a significant decrease in embryonation among samples treated with bitter gourd seeds compared to the untreated controls. Unlike most treatments that target only one parasite stage, *Momordica charantia* seeds have activity against adults, larvae, and ova. Its potential for development as anthelmintic drug must be further explored by isolating its bioactive compounds, testing against other parasitic helminth species, and determining potential for resistance.

Keywords: *Momordica charantia*, *Helminth*, *traditional medicine*