

ABSTRACT

Soil-transmitted helminths (STH) infections are major public health problems in poor and developing countries that require fecal contamination of the environment for transmission. The consumption of raw vegetables without proper washing is one of the main routes of intestinal parasite acquisition. Therefore, this study was designed to detect the kind and prevalence of STH parasites contamination in commonly consumed raw vegetables sold in five traditional markets in Surabaya. A total of 100 fresh vegetable samples consisting of yardlong bean, cabbage, lettuce, and lemon basil were purchased from five traditional markets in Surabaya. Each sample was washed with tap water, water washing examined using flotation method to find STH parasites.

Results: The overall prevalence of STH parasites contamination was 41% (41/100). The most predominant parasite was hookworms (20%), followed by *Strongyloides stercoralis* larvae (14%) and *Ascaris lumbricoides* eggs (7%). The highest prevalence of contamination was found in lettuce, with a prevalence rate of 56% (14/25), while the lowest prevalence of contamination was found in yardlong bean, with a prevalence rate of 24% (6/25). Sequentially, the prevalence of STH parasites contamination of fresh vegetable samples was from Pabean traditional market (55%), Keputran traditional market (50%), Wonokromo traditional market (50%), Lakarsantri traditional market (35%) and Mulyosari traditional market (15%), respectively.

Conclusion: The present study demonstrated that consumption of vegetables with parasite contamination in this area represents a potential route for the transmission of STH infection. Therefore, it is necessary for health authorities to educate consumers about the proper washing of vegetables prior to consumption. Preventive methods such as wearing gloves and washing hands after handling vegetables should also be advocated to sellers who are at risk of acquiring STH parasites infection.

Keywords: *Soil transmitted helminths contamination, Raw vegetables, Surabaya*