Detection of Eggs and Cysts from Imported Vegetables in Japan

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Abstract: In Japan, many foods are imported from many foreign countries. The safety of these imported foods is protected but limited by the quarantine. On the other hand, the amoebic dysentery with *Entamoeba histolytica* is specified in the law. The reported cases are increasing from 1999 and reach a peak of 871 cases in 2008. One of the infection sources is considered to be contaminated with cysts on the fresh vegetables imported. This study was carried out detection cysts of *E. histolytica* and eggs from the fresh vegetables imported. The 533 samples of the imported vegetables were purchased from December 2009 to March 2011. After the imported vegetables were washed with 2 L of 0.01 M phosphate buffered saline solution with 0.05% Tween 20 solution, the sediments were collected for detection. As a result, several kinds of cysts, having one to four nuclei, were detected from some of the imported vegetables by the combination methods with formalin-ether method and iodine staining. By PCR, DNAs of *E. histolytica* were also detected from some of the imported vegetables. Therefore, the cyst having 4 nuclei was suspected to be that of *E. histolytica*. In addition, the eggs, larvae and adults of *Paragrolaimus* spp. and *Cruzanema* sp. were detected from washing solution by formalin-ether method. The larvae of *Strongyloides stercoralis* were not detected by the culture method. Therefore, the imported vegetables are quite dirty. The prevention of infection was considered to wash the imported vegetables well and carefully before eating fresh one. (This study was supported by research grant of Urakami Zaidan and Food Foundation in 2009)

Key words: Imported vegetables, *Entamoeba histolytica*, *Paragrolaimus* spp., *Cruzanema* sp..