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# Parasitological assessment of selected edible fruits and vegetables sold at some markets in Lokoja, Northcentral region of Nigeria in the context of disease surveillance

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Various species of parasites are capable of contaminating most edible fruits and vegetables consumed in Lokoja with chronic consequences leading to malnutrition, iron-deficiency anemia, morbidity and sometimes, health-compromising nutritional status and affective cognitive process (especially in children). This assessment was done to isolate and identify common parasites of public health importance, given their high rates of transmission among members of the community, especially the fruits and vegetable consumers; as well as provide data and evidence for surveillance of some soil-transmitted helminthes and foodborne disease parasites. A total of 128 fruits and vegetables were sampled from the four markets, parasites were isolated from samples by washing with distilled water and normal saline. The isolates were examined for contamination using light microscopy. Concentrations of identified parasites were determined using iodine smear and sedimentation methods. 82 of the 128 samples were contaminated with different parasitic stages including ova, cysts, and larvae of Taenia sp., Ascaris lumbricoides, Schistosoma mansoni, Enterobius vermicularis, Hookworm; Balantidium coli, Entamoeba histolytica, Entamoeba coli; and Strongyloides stercoralis. Fruits and vegetables from different markets showed significant levels of parasitological infestation with Lonkongoma (78%) having the highest level compared to Ganaja (75%), Adankolo (56.25%) and Old (53.13%). Among the fruits and vegetables examined, pumpkin (41) had the highest frequency of parasitological contamination, with watermelon (21), garden egg (8) and green peas (8). Implications of these findings for effective surveillance programmes of foodborne and neglected tropical diseases of great public health importance were discussed and further control measures recommended.

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