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Association of Parkinson Disease with exposure to dietary sources of pesticide residues

Sarah Aggad¹, Tolessa Deksissa² and Thomas Fungwe³ Howard University, USA

Increasing global food demand has elevated the use of pesticides which may compromise human, as well as environmental health. Several studies have linked pesticides to various human diseases such as asthma, birth and fetal defects, cancer, diabetes, Alzheimer's and Parkinson disease. The objective of this study is to determine the association between Parkinson disease with the dietary sources of pesticides residues. International peer review articles published between 1980 and 2017 were systematically reviewed. The Data bases used for this this review included PubMed and WHO resources. Out of the studies identified (n=1002), 100 articles met the inclusion and exclusion criteria. Compared to other disease, Parkinson disease was found to associate more with pesticides. It is evident from this review that active ingredients of pesticides such as paraquat can cause Parkinsonlike symptoms. Rotenone is linked to brain inflammation that can lead to Parkinson's disease; organophosphate pesticides such as chlorpyrifos (Dursban™) and organochlorine compounds such as lindane are very toxic pesticides applied in the U.S. to control insect. In addition to Parkinson's disease, dichlorvos, trichlorfon, alachlor, cyanazine, and the organochlorine pesticides aldrin, chlordane, and heptachlor are associated with diabetes; midazolinone herbicides, imazethapyr and imazaquin are linked to several types of cancer. To address this issue innovative agricultural food processing and food safety policy is crucial to ensure the sustainability of agriculture and ecosystem services to meet global food demand without compromising environmental and public health integrity.



Biography

Sarah Aggad is a student at University of the District of Columbia. She has completed her study at University of Howard University. She had done many researches in her educational life.

sarahaggad@hotmail.com