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Presentation on: Effect of Fig fruits on experimental Parkinson's disease

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Parkinson's disease (PD), a second neurodegenerative disease and it is considered as progressive movement disorder. The causes of PD is by diverse pathological conditions resulting from dysfunction of the ubiquitin-proteasome system (UPS), mitochondria, and oxidative stress leading to preferential nigral dopamine (DA) neuron degeneration in the substantia nigra. Today, only symptomatic and non-neuro-protective therapies are available for the treatment of PD. Current treatment strategies are having short term retention and costly. Therefore it is important to focus on neuro-protective therapy using alternative methods. Objective: Reports suggests that dietary supplementation with food groups such as fruits, tree nuts, and vegetables rich in flavonoids, polyphenols, vitamins, micronutrients, and minerals improves cognition and memory. Till now, there are no studies were reported on the effect of fig fruits against Parkinson's disease models. To fill the information gap the current study is planned to find the effect of figs experimental PD models. Methods: The effect of fig fruits on behavioral and behavioral alterations in 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridin (MPTP) induced Parkinson's disease in C57BL/6 mice model (*in vivo*) were done. Results: Fig fruits have been reported to offer neuro-protection to other neurodegenerative diseases such as Alzhiemer's disease. In this study we found out the figs offer neuroprotection in experimental PD animals by improving behaviour and other biochemical parameters including neurotransmitters, which could be due to the presence of active materials and antioxidants in this fruit. But the exact mechanism is still unclear and further research needed extensively. Conclusion: The outcome of this study may give a lead for novel therapeutic approach for the PD treatment from figs fruits. The work was supported by an internal grant from SQU (IG/AGR/FOOD/17/02).

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