CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY

Name(s)

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Project Number

33845

Project Title

Beat Parkinson's! A Study of Correlations between Dietary Habits and Weak Organs Associated with Parkinson's Disease

Abstract

Objectives/Goals

My grandfather was diagnosed with Parkinson#s disease ten years ago. Over time, his movement and coordination was greatly affected by this disorder. Watching his ability to enjoy life#s simple pleasures slowly deteriorate, I was deeply saddened. I hope to find the causes and risk factors associated with Parkinson#s in order to help people know if they are at risk.

This study is conducted on the two possible risk factors: dietary habits and the weakness of organs.

The hypotheses of this project are: If Parkinson#s patients have more intake of meat than those in the control group, then meat intake has a correlation with Parkinson#s, and, If the majority of the Parkinson#s patients have the same weak organ according to the TCPD (Traditional Chinese Pulse Diagnosis), then the organ health correlates with Parkinson#s disease.

Methods/Materials

Computers

Patients who have Parkinson#s Disease and are above the age of 44 years (experimental)*

Patients without Parkinson#s Disease above the age of 44 (control)

Survey (20 questions) for Parkinson#s patients with QuestionPro

Survey (18 questions) for non-Parkinson#s patients with QuestionPro

Chinese Medicine doctor

Agreement to Medical Diagnosis form

Results

The average consumption of meat in the Parkinson#s group is slightly lower than the control group.

Through results of the Traditional Chinese Pulse Diagnosis, there is enough evidence to suggest a possible correlation between Parkinson#s disease and the weak organs (liver).

Conclusions/Discussion

There is no significant difference on the consumption of meat between the two groups to prove that there is a correlation between Parkinson#s and meat intake.

7 out of 8 patients has liver as one of their weak organs. There is a 90% of probability that liver may be the weak organ among Parkinson#s patients.

My research demonstrates that there#s a correlation between Parkinson#s disease and the liver.

Liver may be used as an early detector for Parkinson#s using TCPD.

Summary Statement

This study analyzes the possible risk factors (dietary habits and organs) associated with Parkinson's disease through surveys and innovative methods such as the Traditional Chinese Pulse Diagnosis.

Help Received

I would like to express my deep gratitude to Dr. James Wong and Dr. Gary Zhu, my research supervisors, for their patient guidance, enthusiastic encouragement and useful critiques to this research work. I would also like to thank Dr. Li, for his valuable advice and assistance in keeping my progress on schedule.

Preliminary