Improving the Awareness and Diagnosis of Parkinson’s Disease Using Computer-Aided Techniques

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INTRODUCTION

- Parkinson’s disease is a progressive nervous system disorder that affects movement of the human body.
- Early diagnosis is very difficult, as most of its symptoms, are not unique to the disease.
- Symptoms include: tremors, rigidity, posture control and bradykinesia.
- The goal of this research is to create a diagnostic toolkit which would aid in early diagnosis of Parkinson’s.

METHODS

- Our diagnostic toolkit will be in the form of an app which will test tapping rates.
- Through the use of literature review, we determined the patient information needed for early diagnosis.
- We also determined what tests would be beneficial in early diagnosis of PD.

RESULTS

- As seen above, we developed an application with the purpose of allowing an early diagnosis of Parkinson’s outside a medical setting.
- This app was built using the Swift programming language.
- To determine the likelihood of PD, the app uses:
  - The demographics of the user
  - The tapping test

CONCLUSION

- The goal of this project is to provide an efficient self diagnostic toolkit.
- We discovered that the symptoms are not unique to this disease alone, thereby making early diagnosis difficult.
- We were able to make great stride in this research as we developed the foundation of an easy to use self toolkit.
- We hope for more development in the near future.

REFERENCES