A new blood test distinguishes MSA from Parkinson’s disease

-supported study

by Dr. Gal Bitan
**MSA - A diagnostic Challenge**

- Due to a large overlap in symptoms, especially in early stages, MSA often is misdiagnosed as Parkinson’s disease, or sometimes can be confused with other parkinsonian syndromes.

- The current diagnosis relies primarily on the clinical evaluation. There are no accurate tests that can distinguish among these diseases.

- Brain imaging or analysis of cerebrospinal fluid are tested in some clinics but have not provided satisfactory results to date.
Study Design

• The new study used blood samples from three groups: 50 healthy persons (age-matched), 50 patients with Parkinson’s, and 30 patients with MSA

• The researchers isolated from the blood “nanovesicels” (tiny bubble-like structures secreted by all the cells in the body) that came from two different brain cell types

• They measured the amount of the protein alpha-synuclein in the nanovesicles and compared the levels in the two types of cells in each of the three groups
Key Findings

- The new blood test distinguished correctly between MSA and healthy individuals with nearly 100% accuracy.

- The new blood test distinguished correctly between MSA and Parkinson’s disease with 90% accuracy.
Future Directions

• The findings need to be validated in larger cohorts

• The researchers are working on improving the accuracy of the test with a goal to get to 100%

• They are also developing similar test that will distinguish MSA not only from Parkinson’s disease, but also from other rare parkinsonian syndromes
Thanks!

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