



VA | U.S. Department
of Veterans Affairs

**NATIONAL VA PARKINSON'S DISEASE
CONSORTIUM**
Education · Collaboration · Advocacy

THE TRANSMITTER

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Article Reviews

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Early Constipation Predicts Faster Dementia Onset in Parkinson's Disease

While Parkinson's disease (PD) is characterized as a movement disorder, it carries with it a significant burden of non-motor symptoms. Constipation is one of the most common non-motor symptoms of PD and is now recognized as a prodromal symptom. Individuals with constipation are at an increased risk of developing PD. Camacho et al. sought to investigate how constipation links to key features of PD progression – postural instability, dementia, and death. They analyzed data from the Parkinson's Incidence Cohorts Collaboration, composed of incident community-based cohorts of PD patients assessed longitudinally over 8 years.

Camacho and colleagues found that patients who reported 'major' constipation had higher motor scores on the Movement Disorders Society-Unified Parkinson's Disease Rating Scale (MDS-UPDRS-III) and higher Hoehn and Yahr (H&Y) stage. At the study endpoint, the cumulative proportion with dementia was 20.9% of patients in the no constipation group versus 38.3% in the 'minor' constipation and 47.0% in the 'major' constipation group. Constipation severity was similarly associated with faster progression of postural instability and death. Interestingly, other non-motor symptoms such as postural hypotension and dysphagia did not show similar association with dementia, time to postural instability or death. These findings support the hypothesis that in a subset of patients, early constipation may be associated with an accelerated progression of neurodegenerative pathology in the brain, although the mechanism by which this occurs is currently unknown. Since constipation is a treatable and possibly preventable aspect of PD, that may be linked to long-term PD prognosis, it warrants further investigation as a target for disease modification.

*Camacho, M., Macleod, A.D., Maple-Grødem, J. et al. Early constipation predicts faster dementia onset in Parkinson's disease. *npj Parkinsons Dis.* 7, 45 (2021). <https://doi.org/10.1038/s41531-021-00191-w>*

Exposure to NO₂ is associated with an increased risk of PD

Prior animal and autopsy studies suggest that environmental pollutants are a risk factor for Parkinson's disease (PD), but epidemiologic studies to date have been inconsistent. To evaluate the hypothesis that air pollutants can lead to an increased risk of PD, the authors conducted a study in 78,830 Korean adults over 40 years old without PD identified through the Korean National Health Insurance Service. Participants were followed annually from January 2007 to December 2015. Individual exposures to several air pollutants were estimated based on residential address. Incident PD was assessed by registration in the rare intractable disease registration

program, requiring evaluation by a neurologist and fulfillment of NHI criteria for PD. The study found that higher exposure to NO₂ was associated with a 40% increased risk of PD compared to lower exposure. There were no statistically significant relationships found between exposure to PM_{2.5}, PM₁₀, O₃, SO₂, or CO. This study supports an association between air pollutants and PD, providing support for comprehensive public health policies to address this modifiable risk factor.

Jo S, Kim YJ, Park KW, Hwang YS, Lee SH, Kim BJ, Chung SJ. Association of NO₂ and Other Air Pollution Exposures With the Risk of Parkinson Disease. *JAMA Neurol.* 2021 Jul 1;78(7):800-808. doi: 10.1001/jamaneurol.2021.1335. PMID: 33999109; PMCID: PMC8129903.

Psychiatric Comorbidities in Functional Movement Disorders: A retrospective review

Psychological stressors have long been implicated in functional movement disorders (FMD). Less is known about the details of and impact of comorbid psychiatric disease. The authors conducted a retrospective review over 5 years for patients with functional movement disorders with or without comorbid psychiatric diagnoses. 551 patients were identified who met inclusion criteria of chart diagnoses of a functional or conversion disorder, and at least one visit with a neurologist, and a diagnosis of some kind of movement phenomenology. The cohort was 69.7% female. A slight majority (51.4%) had a single movement phenomenology, mostly weakness or gait disturbance, and 48.6% had multiple phenomenology diagnostic codes. 75.7% of the cohort had at least one mood disorder (anxiety, depression and PTSD most common) and 24.3% had none. As hypothesized by the authors, those patients with comorbid psychiatric diagnoses had higher health care utilization (9.9 vs. 3.5 ER visits on average) and more complicated disease (more likely to have >1 phenomenology code) than those without comorbid psychiatric illnesses. In addition, suicidal ideation and self-harm were only observed among the co-morbid psychiatric illness population. The authors conclude that they were able to replicate smaller previous observational studies showing high rates of comorbid psychiatric disease in the FMD population and evidence that this is associated with higher healthcare utilization and disease complexity. Importantly they point out that psychiatric disease is neither sufficient nor required for a diagnosis of FMD and that 24.3% of the population had no psychiatric comorbidities. They suggest that physical therapy alone without an emphasis on mental health care may be a more appropriate treatment route for this subset.

Macchi et al. *Movement Disorders Clinical Practice* July 2021. 8:(5) 725-732.

<https://pubmed.ncbi.nlm.nih.gov/ucsf.idm.oclc.org/34307745/>

Committee Activities

Clinical Care Committee

- **Rotation of Committee Chair:** Leadership for the clinical care committee rotates amongst the PADRECCs. The Houston PADRECC leads the committee for July/August. The committee meets via conference call the first Tuesday of the month at 12pm (EST)
- **Standardize and Optimize Clinical Care:** The committee continues to discuss latest research on PD, new treatment strategies and a variety of clinical issues to improve patient care and outcomes. It also serves to

provide clinical support to the consortium network by focusing on measures to standardize clinical care across the PADRECC network. Recent agenda items have included discussions on:

1. Discussion regarding COVID 19 pandemic-clinical challenges and solutions.
2. Exploring new diagnostic procedures especially Syn-One test – evidence review and use in the PADRECC/VA
3. Clinical experience and comparative use of three available DBS systems including Boston Scientific’s “Vercise” and Abbott’s “ St. Jude Medical Infinity” within the six PADRECCs
4. Updates on clinical experience with newer medications – Nourianz (Adenosine Receptor antagonist), Gocovri and Imbrija Inhaler
5. CSP # 2015 Trial, planning and trial initiation related matters.

Education Committee

- **PADRECC/EES Movement Disorder Series-Webinar:** The 5th webinar for FY 21 was held on May 13th, 2021: “*Update on Deep Brain Stimulation in PD: Trends in Candidacy & New Technology*” presented by Dr. Nicolas Galifianakis, San Francisco PADRECC. Planning is underway for fiscal year 2022 webinars, please stay tuned!
- **National VA PD Newsletter:** The newsletter is currently in the editing phase and once completed will be emailed and posted on the National Website.
- **VHA/PADRECC & The Parkinson’s Foundation Partnership:** Goal of the partnership is to improve the care and quality of life for Veterans living with PD through collaborative education, research and services. We are now one year into the partnership and much of the foundational work has been done. This committee continues to spearhead many of the projects for this partnership.
- **National Website Maintenance:** The committee performs periodic maintenance checks of the National Website to ensure information is current and up-to-date.
- **PADRECC Transmitter:** This committee continues to assemble and distribute this e-newsletter every other month.
- **Resources available on the National Website:**
 - **Patient Education Brochures-** <https://www.parkinsons.va.gov/patients.asp>
 - Exercise and Physical Activity
 - Fall Prevention
 - PD Medications
 - Motor Symptoms
 - Non-Motor Symptoms
 - Agent Orange and Toxic Exposures and PD (*recently updated*)
 - **PADRECC Support/Education Groups:** The PADRECCs are now holding virtual groups open to Veterans and care partners interested in attending. Please check out the National Website for listing

of dates/times and contact person to register for the groups and please share with your patients/care partners: <https://www.parkinsons.va.gov/patients.asp>

- **My Parkinson's Story**-<https://www.parkinsons.va.gov/patients.asp>
A series of short videos prepared by the VA PADRECCs addressing various aspects of Parkinson's disease.
- **Suggested Education Essentials for Veterans with PD** (*recently updated*)
<https://www.parkinsons.va.gov/patients.asp>
- **Resource Request Form**-PADRECC staff and consortium members can order bulk supply of FREE educational materials from PF and APDA. Please click on the following website link and complete the *Resource Request Form* and fax or email to address listed:
<https://www.parkinsons.va.gov/clinicians.asp>
- **PADRECC Pocket Card:** *Parkinson's Disease Quick Reference Guide for Imitating Therapy* is available on the National Website:
<https://www.parkinsons.va.gov/Consortium/PocketCard/PocketCard19.pdf>

Dates to Remember

September 17 - 22, 2021

International Parkinson's and Movement Disorder Society

Location: Virtual

<https://www.mdscongress.org/Congress-2021.htm>