

Antidepressant Use and Cardiovascular Outcomes in Parkinson's Disease: An OHDSI Network Study

Call for Collaboration!

Background & Study Rationale

- Depression affects 35-50% of PD patients; antidepressants widely prescribed
- Cardiovascular safety concerns in PD population remain poorly characterized
- Orayj et al. (2021) found elevated CV risk with certain antidepressants in UK PD cohort
- Gap: Single-country findings need multi-national validation across diverse healthcare systems

Study Design:

- Retrospective cohort
- Propensity-score matched

Population:

- PD patients ≥ 40 years
- Initiating antidepressants
- No prior AD use (365d)
- Follow-up: 5 years

Exposures:

- SSRIs (reference)
- SNRIs
- TCAs
- Mirtazapine
- Other antidepressants

Special focus:

- Mirtazapine CV safety

Outcomes:

Primary:

- Composite CV events (MI, stroke, HF, arrhythmia)

Secondary:

- Individual CV events
- All-cause mortality
- Time-to-event metrics

Methods: Statistical Analysis

- Large-scale propensity score matching (OHDSI CohortMethod)
- 1:1 nearest-neighbor matching with caliper (0.2 SD)
- Cox proportional hazards models
- Kaplan-Meier survival curves
- Competing risk analyses
- Meta-analysis across databases

Methods: Planned Analyses

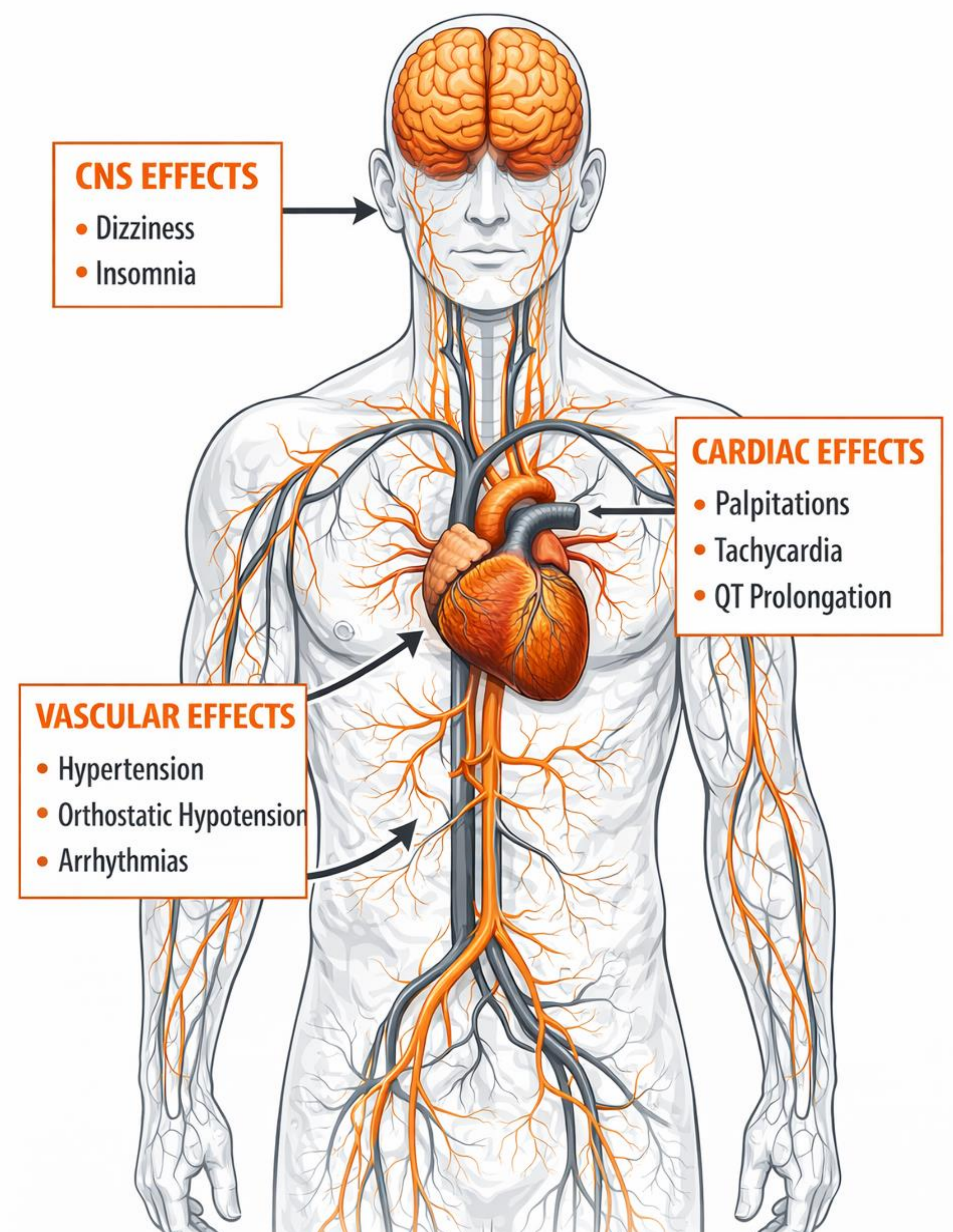
Subgroup analyses:

- Age (<65 vs ≥ 65 years)
- Sex (male vs female)
- PD disease duration

Sensitivity analyses:

- Varying PS caliper widths
- Alternative outcome definitions
- Intent-to-treat vs as-treated
- Negative control outcomes

EFFECTS OF ANTIDEPRESSANTS ON THE CARDIOVASCULAR SYSTEM IN PD



Interested? Scan to contact us:

