

Brexpiprazole As A Modifier Of Cardiovascular Risk In The Management Of Agitation In Dementia: A Real-world Study

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Background

Agitation in dementia is frequently managed with antipsychotic medications, despite well-documented **cardiovascular adverse effects**. **Brexpiprazole**, a **serotonin-dopamine activity modulator**, has been approved for the treatment of agitation associated with Alzheimer's disease. However, evidence regarding its **cardiovascular safety** in routine clinical practice remains limited.

Methods

We conducted a **retrospective, population-based cohort study** using de-identified electronic health records from the global TriNetX research network, encompassing data from 170 healthcare organizations. Adults diagnosed with **Alzheimer's disease or unspecified dementia who received antipsychotic treatment** were included and categorized into two cohorts: **antipsychotic monotherapy** and **antipsychotic therapy with adjunctive brexpiprazole**. Patients with a history of stroke, myocardial infarction, intracranial hemorrhage or heart failure were excluded.

Propensity score matching (1:1) was applied to balance demographics, cardiovascular and cerebrovascular comorbidities, and concomitant medications. **Incident heart failure and ischemic stroke** occurring between 1 and 730 days after treatment initiation were evaluated using cumulative risk estimates and time-to-event analyses with Kaplan-Meier estimators.

Results

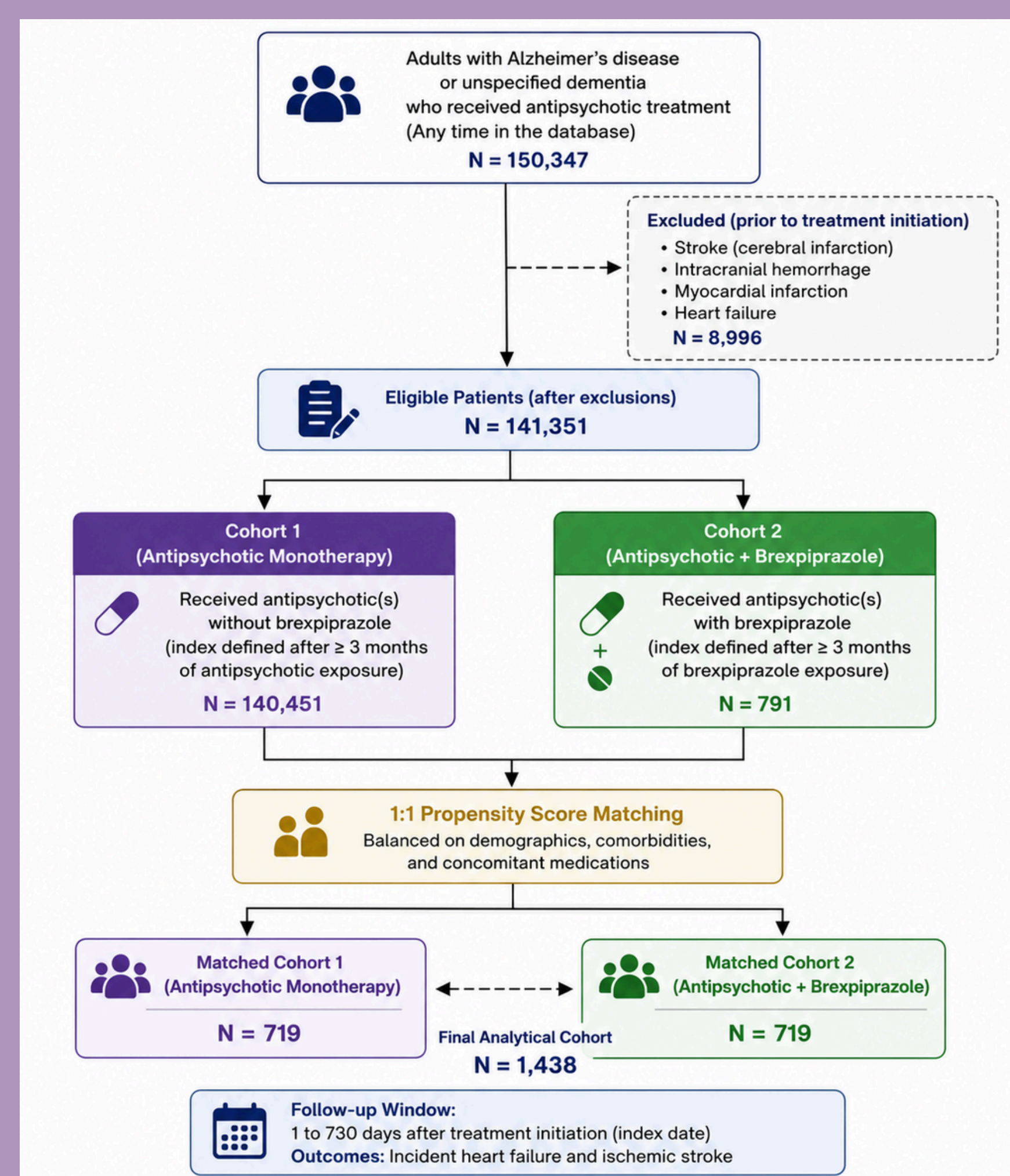


Figure 1. Cohort selection and propensity score matching.

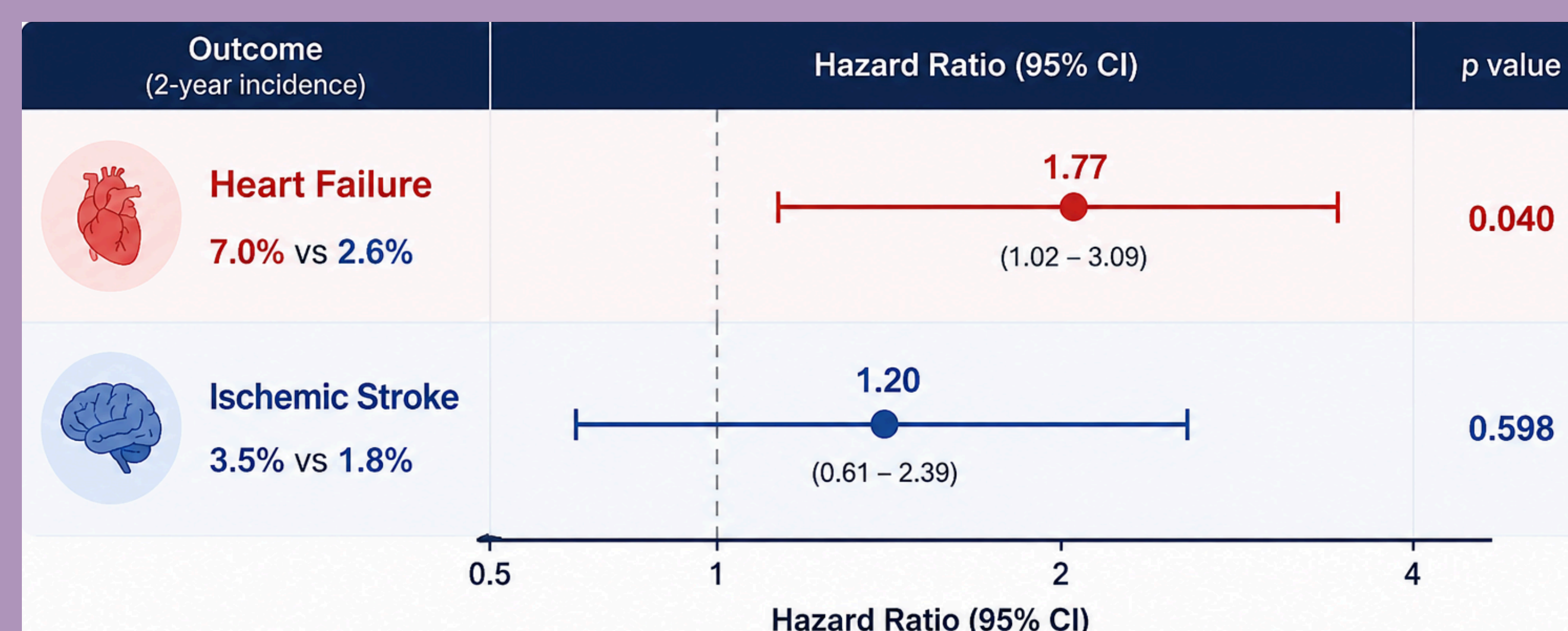


Figure 2. Hazard ratios (HRs) for incident heart failure and ischemic stroke over 730 days of follow-up. Antipsychotic monotherapy was associated with a higher hazard of heart failure, while no significant difference was observed for ischemic stroke. Error bars indicate 95% confidence intervals.

After propensity score matching, **719** patients were included in each cohort (mean age **76 years**). During **730 days of follow-up**, **heart failure incidence was higher with antipsychotic monotherapy than with brexpiprazole (7.0% vs 2.6%; HR 1.77, 95% CI 1.02–3.09)**. **Ischemic stroke incidence was also higher (3.5% vs 1.8%), but the difference was not statistically significant.**

Conclusions

In this real-world cohort of patients treated for dementia-related agitation, **adjunctive brexpiprazole use was associated with a lower incidence of heart failure compared with antipsychotic monotherapy**, while no consistent association was observed for ischemic stroke. These findings are **descriptive and hypothesis-generating**, and prospective studies are needed to **further define the cardiovascular safety profile of brexpiprazole in this population.**

References

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