

New England Journal of Medicine. 356(1):29-38, 2007 Jan 4.

**Dopamine agonists and the risk of cardiac-valve regurgitation.**

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**BACKGROUND:** Case reports and echocardiographic studies suggest that the ergot-derived dopamine agonists pergolide and cabergoline, used in the treatment of Parkinson's disease and the restless legs syndrome, may increase the risk of cardiac-valve regurgitation. **METHODS:** We used data from the United Kingdom General Practice Research Database to identify a population-based cohort comprising 11,417 subjects 40 to 80 years of age who were prescribed antiparkinsonian drugs between 1988 and 2005. We conducted a nested case-control analysis within this cohort in which each patient with newly diagnosed cardiac-valve regurgitation was matched with up to 25 control subjects from the cohort, according to age, sex, and year of entry into the cohort. Incidence-rate ratios for cardiac-valve regurgitation with the use of different dopamine agonists were estimated by conditional logistic-regression analysis. **RESULTS:** Of 31 case patients with newly diagnosed cardiac-valve regurgitation, 6 were currently exposed to pergolide, 6 were currently exposed to cabergoline, and 19 had not been exposed to any dopamine agonist within the previous year. The rate of cardiac-valve regurgitation was increased with current use of pergolide (incidence-rate ratio, 7.1; 95% confidence interval [CI], 2.3 to 22.3) and cabergoline (incidence-rate ratio, 4.9; 95% CI, 1.5 to 15.6), but not with current use of other dopamine agonists. **CONCLUSIONS:** In this study, use of the dopamine agonists pergolide and cabergoline was associated with an increased risk of newly diagnosed cardiac-valve regurgitation. Copyright 2007 Massachusetts Medical Society.