Abstract

Objective

The purpose of this study was to investigate the risk of cerebrovascular events in patients with behavioural and psychological symptoms of dementia (BPSD) treated with typical or atypical antipsychotics in Hong Kong

Method

This was a hospital-based, retrospective cohort study. Patients aged 65 or above, diagnosed with Alzheimer's disease, vascular dementia or mixed dementia, and first attended the psychiatric service of Pamela Youde Nethersole Eastern Hospital in Hong Kong between 1st January 2000 to 30th June 2007 were studied. The patients were divided into three groups: antipsychotic non-user group, typical antipsychotic user group and atypical antipsychotic user group. They were compared on sociodemographic characteristics, clinical factors and cormorbidities. The incidence rates of having cerebrovascular event were determined. The risk of cerebrovascular events was studied by means of survival analysis (Cox's proportional hazards regression analysis). Hazard ratios of developing cerebrovascular events with use of antipsychotics were determined and were adjusted for confounding factors.

Results

The studied cohort consisted of 1,089 patients. Antipsychotic non-user group had 363 patients, typical antipsychotic user group 654 patients and atypical antipsychotic user group 72 patients. Incidence rate of CVAE in the non-user group was 44.6/1000 person years, in typical group was 32.7/1000 person years, and in atypical group was 49.6/1000 person years. In both

the unadjusted and the multivariate Cox's regression model, the risk of developing CVAEs did not differ in typical or atypical antipsychotic user groups compared with non-user group. The adjusted hazard ratio of typical antipsychotic user group was 0.964 (95% CI=0.584-1.591), and that of atypical antipsychotic user group was 1.036 (95% CI=0.350-3.066). Subgroup analyses of individual antipsychotic also did not show a significant increase in risk of CVAEs. No significant risk for typical or atypical exposure was found in analysis stratified by type of dementia.

Conclusion

This study showed that there was no statistical difference in risk of cerebrovascular events in treatment of BPSD with typical and atypical antipsychotics compared with non-user group. Antipsychotic medication was still a relatively safe treatment option for patients with BPSD. Other adverse effects should still be considered in assessing the risk and benefit ratio of antipsychotic treatment in patients with BPSD. Prescription of antipsychotics should be reserved for severe and distressing symptoms. Careful assessment for long term use of antipsychotic treatment was recommended.

Keywords: Dementia, BPSD, antipsychotics, typical antipsychotics, atypical antipsychotics, stroke, cerebrovascular event