Abstract

Background: Selective serotonin re-uptake inhibitor (SSRI) is a common choice of anti-depressant treatment in elderly patients and hyponatraemia is one of the potentially dangerous and serious complications of SSRIs. The objectives of this study were to determine the rate of detection and characteristics of hyponatraemia associated with SSRI use among hospitalized Chinese elderly patients, and to identify associated risk factors.

Design: Retrospective review of case notes.

Setting: A regional hospital with psychiatric unit in Hong Kong.

Sample: Chinese elderly patients (age ≥ 65 years) taking SSRIs and admitted in the period from 1st January 2008 to 31st December 2008.

Measures: Demographics, baseline characteristics, psychiatric diagnosis, psychiatric medication, physical co-morbidity, medication for physical illness and characteristics of hyponatraemia cases were identified.

Results: Of the 432 hospitalized patients taking SSRIs in our study sample, hyponatraemia was detected in 89 patients (20.6%). Fifty-six of them were females (62.9%) and 33 were males (37.1%), with a mean age of 80.2 ± 7.5 years. The mean

time to detection of hyponatraemia was 47.8 ± 60.7 days (median: 25 days; range: 1-291 days) with approximately 75% being detected within 60 days after commencement of SSRIs. The mean time to resolution was 6.1 ± 6.0 days (median: 4 days; range: 1-30 days). The majority of patients had normalization of serum sodium level upon cessation of SSRIs with or without fluid restriction. In the multivariate regression analysis, history of hyponatraemia (OR=19.33, 95% CI=7.59-49.19, p<0.001), use of diuretics (OR=7.40, 95% CI=2.48-22.14, p<0.001), pneumonia (OR=6.10, 95% CI=2.40-15.52, p<0.001), cardiac failure (OR=2.62, CI=1.03-6.67, p=0.044), female sex (OR=2.29, 95% CI=1.05-4.97, p=0.037) and advanced age (OR=1.08, 95% CI=1.03-1.14, p=0.005) were significant risk factors associated with the occurrence of hyponatraemia in these patients.

Conclusion: The rate of detection and characteristics of hyponatraemia associated with SSRI use in Chinese elderly patients have not been established previously. This study found a high rate of detection of this potentially dangerous complication in hospitalized Chinese elderly patients. Elderly patients, especially those with additional risk factors, should be monitored closely in the first few months of SSRI therapy or at any time when they have symptoms suggestive of hyponatraemia.