1 Abstract

Background and purpose: Selective serotonin reuptake inhibitors (SSRI), drugs used for treatment of depression, show *in vitro* antimicrobial activity against several groups of microorganisms. The aim of our study was to prove a hypothesis about the negative influence of SSRI *in vivo* on function and constitution of gastrointestinal microflora. This effect could be expressed by higher frequency of symptoms of gastrointestinal dysmicrobia and discomfort in patients with depression treated by SSRI compared with healthy volunteers.

Methods: Our research was based on questionnaire about symptoms of gastrointestinal discomfort. We investigated a group of 213 persons subdivided into 3 subgroups: patients with depression treated by SSRI (group SSRI) – 80 persons, patients with depression treated by other antidepressant drugs (group Non SSRI) – 50 persons, and group of healthy volunteers (control group) – 83 persons.

Results: We used statistic method of chi-square test for analyzing differences between groups. Group SSRI showed statistically higher incidence of occasional vomiting after food, daily burp with stress and treated digestive problems compared with control group. Both group SSRI and Non SSRI showed similar statistically higher incidence of absence of formed stool, absence of daily periodic frequency of stool, higher incidence of symptoms connected with stress like daily flatulence, daily nausea, higher incidence of enormous appetite and higher incidence of digestive problems treated by patients themselves. We found similar higher incidence of patients with criteria of gastrointestinal discomfort in groups SSRI and Non SSRI compared with control group.

Conclusions: Patients with depression treated by SSRI and also Non SSRI drugs shown similar higher incidence of some symptoms of gastrointestinal discomfort, symptoms mainly connected with stress, compared with control group. There was also higher incidence of patients with criteria of gastrointestinal discomfort in groups SSRI and Non SSRI compared with control group. We suppose that these symptoms of gastrointestinal discomfort are caused more by influence of depression and disharmony of autonomic nervous system than negative influence of SSRI on function and constitution of gastrointestinal microflora.

Key words: selective serotonin reuptake inhibitors, antibiotics, gastrointestinal microflora, gastrointestinal discomfort