INTRODUCTION

Akatisia, one of the most common acute movement disorders (1), is a syndrome which results in subjective discomfort and movement symptoms. This syndrome consists of subjective feelings of inner restlessness and urge to move, as well as objective signs, such as rocking while standing or sitting, lifting feet as if marching on the spot and crossing the legs while sitting. While the patient is lying down, it is possible to observe foot movements and/or myoclonic jerks of the feet (2). Drug-induced akathisia is usually seen with antipsychotic drugs, additionally antiemetics (prochlorperazine, metoclopramide), antidepressants (tricyclics, SSRIs) and calcium channel blockers (cinnarizine, flunarizine, diltiazem) may also lead to catathisia (3). Prevalence rates of antipsychotic induced akathisia in patients receiving antipsychotic drugs vary widely 5% to 36.8% (4-5). Various risk factors; higher drug dosages, rapid increment of dosage, higher-potency antipsychotic medication (6), higher age, younger age, female sex, negative symptoms, iron deficiency, cognitive disfunctions and bipolar disorder diagnoses (especially bipolar depression), have been associated with both first and second generation antipsychotics-induced akathisia (7-8).

Antipsychotic-induced akathisia can be classified according to its onset in relation to the administration of the antipsychotic drug and its duration, as an acute, tardive, withdrawal and chronic akathisia. Chronic akathisia is defined as persistence of akathisic symptoms for more than 3 months. The term does not express whether the beginning of the symptoms was acute or tardive or withdrawal. This term only describes the duration of the symptoms (9).
**CASE REPORT**

Forty three-year-old woman with suicide attempts admitted to psychiatry emergency service and hospitalized. It was reported that patient had akathisic symptoms for a long while with suicide thoughts and attempts, decreased appetite, sleep disturbances and nonstop walking at home for last 3 weeks.

The patient reported that she applied to psychiatry outpatient clinic with auditory hallucinations, anhedonia, retardation and insomnia eight months ago. According to her previous documents and information received from family, firstly her treatment was initiated with risperidone 2-4 mg/day, paroxetine 20-40 mg/day, biperidene 2 mg/day and chlorpromazine 100 mg/day. After this medication, it was documented that psychotic and depressive symptoms were decreased, unluckily akathisic symptoms, feeling of inner restlessness and urging to move had began at the 2nd week of the medication. Olanzapine (10-20 mg/day), aripipirazole (10-20 mg/day), propranolol (40-80 mg/day), sertralin (100 mg/day), fluoksetine (20 mg/day) were prescribed for treatment during seven months. The last medication was olanzapine 10 mg/day when she applied to emergency service.

Initial psychiatric examination: She was seemed her chronological age and her selfcare was not sufficient. Eye contact was decreased with increased psychomotor activation, fairly decreased spontaneous speech, anxious mood, suicidal plans, no hallucinations and delusions. Patient was in restlessness and she was pacing in room. When she tried to sit, patient couldn’t stop to walk more than 20 or 30 seconds. Her physical examination, routine biochemistry and thyroid hormone profiles were assessed as normal. Results of brain MRI and EEG were normal. She has no any family history for psychiatric disorders.

At the first interview we thought patient’s clinic was likely to be psychotic agitation. We increased olanzapine 20 mg/day. Because significant symptoms of akathisia with pacing continuously and insomnia, antipsychotic medication was stopped at the 3rd day of treatment. Then, alprazolam 1.5-3 mg/day, propranolol 40 mg/day medications were applied. Within one week complaints of patient were decreased, sleep time was increased but the feeling of inner restlessness and urging to move continued. Treatment was mediated with diazepam 10 mg/day and propranolol 40 mg/day. At the end of 3rd week, feeling of inner restlessness ang urging to move were disappeared. While decreasing of diazepam and propranolol treatment, quetiapine 450 mg/day was applied as antipsychotic medication due to bizarre behaviors and negative symptoms before hospitalization. Akathisia was disappeared and patient was discharged with this treatment.

**DISCUSSION**

Atypic antipsychotic-induced chronic akathisia is limited; albeit cases of atypic antipsychotic-induced akathisia were reported before in the literature. In one of those cases, nearly 7-month-long persistent akathisia, emerged after atypic antipsychotic medication, with uses of various atypic antipsychotics is reported. In the literature, atypic antipsychotics-induced akathisia was reported to be present in 0-39% of clozapine, 13-25% of risperidone, 2.4% of olanzapine receiving patients (2,8). The incidence of akathisia was 3.3% with quetiapine monotherapy compared with 6.1% with placebo in bipolar manic patients on four randomized placebo-controlled double-blind trials (10).

Agitation and behavior problems which can be leading to further psychotropic intervention that exacerbating akathisia (such as increases in dosage) may be mistaken with akathisia. We thought that previous drug changes had been done for this reason. Unfortunately we also attend high dose of antipsychotics at the begining of treatment. This clinic continued with antipsychotic treatment and then regressed with medication used for akathisia, so we excluded psychotropic agitation. The differentiated diagnosis is also necessary between restless legs syndrome and akathisia. Idiopathic restless legs syndrome, a dyssomnia in which the person feels a strong urge to move the lower limbs, bears some resemblance to akathisia because of the subjective sensation which may result in the need to get up and pace. The diagnose of our patient is chronic akathisia that persists for 7 months due to the symptoms that feeling of inner restlessness, urging to move begins at second weeks of antipsycotic treatment.

Propranolol or other lipophilic beta-blockers and benzodiazepines seem to be the most consistently effective treatment for antipsychotic-induced akathisia. Amantadine or clonidine can be tried in nonresponders, although there is no evidence that they are more beneficial (2). Recently, mirtazapine was found to be effective in the
treatment of akathisia, especially if propranolol is contraindicated, mirtazapine may be considered as a significant treatment option for acute antipsychotic-induced akathisia (11). Moreover, it was reported that a significant reduction in parkinsonism and akathisia in patients with schizophrenia by switching from previous antipsychotics to quetiapine because of preexisting extrapyramidal side-effects (12).

In conclusion, second generation antipsychotics may induce chronic movement disorders, especially chronic akathisia. Quetiapine may be an alternative antipsychotic treatment in patients with chronic akathisia.

References: