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LETTER TO THE EDITOR

Acute dystonia and akathisia following droperidol administration misdiagnosed as psychiatric disorders

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To the Editor:

Droperidol is commonly used in prophylaxis for postoperative nausea and vomiting (PONV). Although acute extrapyramidal side effects (EPSE) are well known with droperidol [1], they still can be misdiagnosed in this context.

A 23-year-old woman underwent a 4-h surgical treatment of a spondylolisthesis. She received droperidol 2.5 mg i.v. (0.13 mg/kg) at the start of the surgery and postoperatively droperidol 0.05 mg/1 mg morphine in her patient-controlled analgesia (PCA) solution. About 18 h after the start of the PCA and a cumulative dose of droperidol 3.4 mg (0.09 mg/kg), the patient became agitated, had difficulties in speaking, and suffered from a sustained upward eyes deviation. Her neck and back were stiff and her arms were maintained in a peculiar position. The emergency physician concluded a seizure episode had occurred and administered diazepam 5 mg i.v. One hour later, her symptoms reoccurred and a neurologist was called. Blood analyses, EEG, and magnetic resonance imaging (MRI) were normal. He concluded the symptoms were psychogenic and reordered the same benzodiazepine treatment without stopping the PCA. Dystonic symptoms occurred again with variable presentations and disappeared only when the PCA was stopped 2 days later, after a total droperidol administration of 4.5 mg.

A 39-year-old woman underwent hysteroscopic uterine polypectomy and received droperidol 1.25 mg i.v. (0.02 mg/kg) for PONV prophylaxis. Nine hours later, the patient complained of inner tension, anxiety, and motor restlessness. She was discharged home where her symptoms gradually worsened. She became very anxious, and the motor restlessness prevented her sleeping. The next day, she came to the emergency room where the physician concluded she had an anxiety disorder related to the surgery. She received bromazepam 3 mg and her symptoms disappeared. The episode was rediagnosed as droperidol-induced akathisia after a systematic phone interview and a careful analysis of the emergency room file.

Both these cases illustrate that acute dystonia and akathisia following PONV prophylaxis with droperidol can be falsely diagnosed as psychiatric disorders. Several factors may have been misleading in the first case: (1) symptom fluctuation was considered as psychogenic although this is characteristic of acute dystonia; (2) EPSE occurred 24 h after the first administration of droperidol, which in fact corresponded to the time needed for a significant cumulative dose to be reached; (3) the cumulative dose of

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droperidol was 0.22 mg/kg, which is generally but unduly considered as too low for inducing EPSE.

Regarding the second case, akathisia is mostly known as motor restlessness but produces other symptoms such as inner tension or discomfort that resemble anxiety. Although it is usually dose related, akathisia can also develop after the administration of a low dose of droperidol.

Postoperative anxiety incidence is about 30 % whereas the droperidol-induced akathisia incidence is about 30–70 % [1]. Anesthetists should inform patients about these side effects, try to reduce the dose of droperidol, choose alternative drugs such as dexamethasone, and use a multimodal PONV prevention. The risk of EPSE is higher in cases of aging, female gender, pregnancy, or nicotine withdrawal. A more systematic use of scales such as the abnormal involuntary movement scale (AIMS) and the barnes akathisia rating scale (BARS) [2] may help clinicians to diagnose EPSE and akathisia.

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