

Case Report

Quetiapine Overdose Associated With Alcohol Intoxication

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Abstract

Potentially life threatening consequences from quetiapine overdose include QT prolongation and respiratory depression, which can be expected to be potentiated by alcohol. We describe the first case report of concomitant intoxication with quetiapine (3000mg) and alcohol (2.4 mg/ml). Beside a short somnolence-phase and a QT_C prolongation to 460ms, the course was uncomplicated. Thus, the course of patients after quetiapine overdoses taken concomitantly with larger amounts of alcohol may resemble those of patients intoxicated with quetiapine only (German J Psychiatry 2004,7: 60-61).

Keywords: Intoxication, overdose, alcohol, quetiapine, dibenzothiazepines, antipsychotics

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Introduction

Several reports have revealed the relative safety of quetiapine in overdose up to 20,000 mg (Fernandes and Marcil, 2002; Catalano et al., 2002; Spiller et al., 2002; Juhl et al., 2002; Pollak and Zbuk, 2000; Hustey, 1999; Harmon et al., 1998; Nudelman et al., 1998; Beelen et al., 2001; Gajwani et al., 2000), 2 publications even in adolescents (Catalano et al., 2002; Juhl et al., 2002). Only one fatal case has been published (Fernandes and Marcil, 2002), the corresponding dose having been 10,800 mg. The most frequently described symptoms were tachycardia, agitation, hypotension, drowsiness, unconsciousness and prolongation of QT. Whereas the contribution of concomitant substances to the quetiapine intoxication symptoms has sometimes been discussed (Gajwani et al., 2000), to our knowledge no previous experience has been published with regard to alcohol intoxication.

Case Report

Ms A, 30 years old, has a 10-year history of schizoaffective disorder with 20 hospitalizations. Whereas she occasionally consumed alcohol, mainly wine during meals, she had never developed alcohol dependence. She previously has been treated with a large variety of antipsychotic drugs and mood stabilizers. As she experienced a further manic episode 10 months ago, characterized by elevated mood and irritability, accompanied by suspiciousness, and aggressive behavior, quetiapine was introduced for the first time and was titrated up to 300mg twice daily over one week in association with lorazepam 12.5 mg/day. She responded well within 6 weeks and reported a much better tolerability compared with her previous treatments.

She currently was hospitalized after attempting suicide with an overdose of quetiapine and alcohol. She reported taking 3000 mg of quetiapine and at least 8 glasses (ca. 4 cl) of gin. As her boyfriend became aware of her alcoholization and

discovered the empty quetiapine box, he brought her to the emergency room of the University Hospital. There, she experienced only a short sedation and 4-hour somnolence-phase beginning around 2.5 hours post ingestion. She always remained wakeable. The only significant clinical signs were sinus tachycardia with 100 bpm, and a QTc at 460 msec. Her blood alcohol concentration was 2.4 mg/ml. Laboratory blood chemistry and blood cell testing were normal. After the observation period of 24 hours and the return of the ECG to complete normality (QTc = 430 ms), the patient was transferred to our psychiatric inpatient facility, where her depressive reaction remitted mainly with psychosocial interventions. She did not experience any alcohol withdrawal signs during the following days. The quetiapine treatment was reintroduced one week after first examination, respecting the usual titration scheme.

Discussion

This is to our knowledge the first case reporting a concomitant intoxication with quetiapine and alcohol. The risk due to the combination of two substances cannot be considered simply to be the sum of the risks of each substance, as experience with sedative drugs like benzodiazepines and alcohol has shown. Potentially life threatening consequences from quetiapine overdose include QT prolongation and respiratory depression, which can be expected to be potentiated by alcohol (Rossinen et al., 1999). However, our patient produced only a slight QT prolongation, which just reached the norm limit, and experienced only a short somnolence phase. Thus, the course of patients after quetiapine overdoses taken concomitantly with larger amounts of alcohol may resemble those of patients intoxicated with quetiapine only.

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