Acute Treatment of Schizophrenic and Manic Patients with Parenteral Olanzapine

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Introduction

Psychiatric hospitals providing routine services for their community are regularly faced with situations like these: schizophrenic or manic patients are brought by the police, relatives or friends in a highly agitated condition and need to be calmed down. Little is known about accompanying diseases, previous consumption of drugs, alcohol or medication. Which procedure is efficient, safe and adequate?

Sometimes experienced staff succeeds in talking down the patient or gets him to take a sedating substance. Often, however, there is no alternative to forced medication. Then a parenterally applicable drug is needed, that is perfectly safe in the hands of young doctors on duty. An important advantage comes in if the patient is not annoyed by the procedure and does therefore not object to a continuation of the treatment.

In the past we had to rely on benzodiazepines and classical antipsychotics in situations as described above. With the lastly mentioned substances EPMS often hampered the future compliance of our patients. Unfortunately, atypical antipsychotics have not been available for parenteral use in a long time. With the new application form of ziprasidon and olanzapine this has now improved a lot.

Methods

Beginning in January of 2004 highly agitated schizophrenic or manic (due to bipolar illness) patients have received 10 mg (1 Ampoule) of Olanzapine intramuscularly whenever forced medication was appropriate. Prior to and 30 minutes after the injections the nurses filled out a PANSS-EC rating (Positive and Negative Syndrome Scale Excited Component). The validated subscale of the PANSS consists of the 5 items: “tension, uncooperativeness, hostility, poor impulse control, and excitement”. Each is assigned an integer between 1 (not present) and 7 (extremely present) which are summed up for the PANSS-EC total score.

Results

Up to now 37 injections have been done in schizophrenic patients (13 in females), 3 in manic patients (1 in a female) and with 5 injections (3 in females) the diagnoses had to be assigned differently in the course of the therapy. The values of all PANSS-EC ratings are demonstrated below with the diagnoses marked as S (schizophrenic), B (manic) and A (other). The age of the patients was between 23 and 67. In 5 of the cases patients were treated twice during the same day (marked by red arrows in the diagram). No severe side effects were observed due to the medication. In particular no cardiac problems or EPMS occurred. Subjectively the injections were tolerated well, 3 patients even wanted a continuation of the parenteral treatment.

In almost, but not all individual cases the scores on the PANSS-EC items decreased. The mean values across all schizophrenic and manic patients improved during the observed 30 minutes as follows: tension: 5.6 to 2.9 (48%), uncooperativeness: 5.2 to 3.2 (39%), hostility: 4.2 to 2.5 (41%), poor impulse control: 4.9 to 2.8 (43%), excitement: 5.5 to 2.7 (51%), sum score: 25.3 to 14.0 (45%).

Two examples refer to the use of the substance in other diagnoses: (1) after surgery a female patient with Parkinson disease suffered from optical hallucinations and the delusion of being poisoned. She refused the intake of any food or medication. General medical treatment and 5 mg of Olanzapine intramuscularly yielded in an astonishing improvement during the course of one day. (2) a mentally handicapped woman got highly agitated during a planned period of benzodiazepine reduction. The injection of 10 mg Olanzapine did in no way improve her condition.

Conclusions

Our recent experience indicates, that Olanzapine applied parenterarily is safe, easy to handle and effective in the indications described above. The reduction of the PANSS-EC scores was 45% in the course of 30 minutes. Subjectively the drug was tolerated well. Future examinations have to prove if the indication can be extended to other psychiatric conditions and if the dosage interval can be reduced in cases of lacking response.