CASE REPORT

Quetiapine may reduce hospital admission rates in patients with mental health problems and alcohol addiction

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SUMMARY

A 64-year-old man presented with 40 years history of chronic alcohol excess. On average, he had six hospital admissions a year with alcohol-related problems for at least a 10-year period. In 2009, he considered reducing his alcohol intake. He was noted to have mood disturbances, was seen by a psychogeriatrician who diagnosed bipolar disorder. He tried various bipolar medications including lithium and sodium valproate which was unsuccessful. He was then started on quetiapine 600 mg a day in divided doses. Subsequently this has not only controlled the bipolar disorder but also resulted in significant reduction in alcohol intake. He now shares a bottle of wine with his wife while in the past he was consuming a bottle of scotch daily. This case illustrates the benefits of quetiapine in assisting with this man's addiction to alcohol.

BACKGROUND

Alcohol and alcohol-related presentations are an ever increasing health burden for the National Health Service (NHS). It is estimated to cost the NHS £2.7 billion in 2010.¹ There are many different methods of addressing alcohol addiction including hospital detox units and pharmacological therapies such as disulfiram and benzodiazepines.

CASE PRESENTATION

A 64-year-old man presented to us with a lifelong history of alcohol excess. He had on average six hospital admissions per year with alcohol-related problems. In 2009, we referred this man to the psychogeriatricians who diagnosed bipolar disorder. He was prescribed quetiapine high dose of 200 mg three times a day. Within days, his daily alcohol intake dropped from 30 units/day to negligible amounts of alcohol after initiating quetiapine. Between 2009 and 2012, there were no further alcohol-related hospital admissions. The dose of quetiapine was reduced from 600 mg/day to 300 mg daily. He now shares a bottle of wine some evenings with his wife. His γ -glutamyl transpeptidase (GGT) has fallen from 1699 (8/2009), 1102 (4/2011) to 914 (9/2012).

INVESTIGATIONS

Ultrasound abdomen showed coarse echotexture with no focal lesions. Spleen was enlarged at 14 cm. Gallbladder and kidneys were normal. α -Fetoprotein was 4.4. Liver function showed alanine transaminase 29, alkaline phosphate 124, GGT 914, albumin 42, bilirubin 15 (September 2012).

TREATMENT

He was started on quetiapine 600 mg/day for 1 year and then reduced to 300 mg/day. The patient did not respond to common medications for bipolar disorder such as lithium and sodium valproate.

DISCUSSION

Quetiapine is widely used in the treatment of bipolar disorders and in 2006, it was approved by the Food and Drug Administration to be used as monotherapy in America. Nejtek *et al*² studied a group of 124 outpatients looking at both quetiapine and risperidone and reduction in drug cravings compared with baseline. Another study by Monnleey *et al*³ looked at quetiapine in alcohol dependence. In this retrospective study, 30 patients with alcohol dependence received quetiapine (20–200 mg nightly) for disturbed sleep. The results of this study showed quetiapine improved sleep disturbance and may help in alcohol reduction and maintaining abstinence. Moallem *et al*⁴ adds further evidence with their published pilot study showing that quetiapine improves response inhibition in alcohol dependence. Sattar *et al*⁵ also showed the benefits of quetiapine in the treatment of substance dependence disorders. It is difficult to accurately determine if quetiapine has a direct effect on alcohol reduction or through controlling the bipolar symptoms.

Learning points

- ▶ The cause of alcohol addiction is multifactorial. Stress at work, stress with relationship, binge drinking and mental illness can all lead to alcohol dependence problem over time.
- ▶ To consider alternatives to benzodiazepine. Quetiapine should be considered in patients with bipolar disorder and mood disturbance having been assessed by a psychiatrist or psychogeriatrician.
- ▶ There have been several pilot studies that have already shown the benefits of quetiapine in alcohol dependence and several completed studies that are yet to publish results. There is currently an ongoing phase II trial comparing the combined therapy of quetiapine with mirtazapine to quetiapine monotherapy for the treatment of alcohol dependence.

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