Pathological Gambling in gambling naïve patients, induced by Aripiprazole: Case reports

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Introduction

We present 3 case reports of patients who presented to the Acute Mental Health care team at a Metropolitan Hospital in Australia with psychosis and were trialled on the antipsychotic Aripiprazole. All the patients had no past history of any impulse dyscontrol symptoms but developed gambling behaviour after a few weeks of commencing the medication. This behaviour resolved after the offending medication was ceased. This suggested that pathological gambling (an impulse control disorder) may have resulted following treatment with the antipsychotic. These reports are discussed in the context of previous observations of the potential impact of aripiprazole on impulse control and the implications of such observations could have for clinical practice and future research.

Case summaries

Case 1 : A 33 yo woman recently diagnosed with paranoid schizophrenia was commenced on Aripiprazole at a dose of 5mg mane which was increased to 10mg after a week. She showed significant attenuation of her psychotic symptoms but on outpatient review next month started reporting of increased urges to gamble at the local shopping centre (pokies machine) resulting in significant financial hardship. Cessation of aripiprazole completely resolved her gambling behaviours within 2 months and she continued to improve in her psychotic illness after switching to a another antipsychotic.

Case 2 : A 46 yo married woman, h/o chronic schizophrenia was switched from another antipsychotic to Aripiprazole due to adverse-effect (Metabolic syndrome) . After a month of medication change (Aripiprazole up to 20mg mane) she started complaining of spending large amount of her pension money on betting again leading to significant hardships. She too had no history of an impulse control disorder like Pathological gambling. She was switched to a newer antipsychotic and although she continued to have some residual psychotic symptoms her gambling behaviour completely ceased.

Case 3 : A 28 yo man diagnosed with schizoaffective disorder and commenced on Aripiprazole 10mg mane which was increased to 20mg after 2 weeks. He started developing irresistible urge to gamble which soon became very problematic. He was placed under a Public guardian to support him financially. A reduction in dose, back to 10mg once his psychotic symptoms resolved after a few months enabled him to resist his urges and on follow-up a year later, he has no longer cravings for gambling.

Discussion

These cases demonstrate that even at low doses, aripiprazole carries a risk of emergent gambling behaviours in those with no history of gambling. The mechanism by which pathological gambling is precipitated may be attributable to aripiprazole's partial dopamine agonist activity in reward circuits which are hypothesised as being regulated ultimately by the mesolimbic pathway.

Dopaminergic dysregulation has previously been proposed as responsible for the emergence of pathological gambling in those taking dopamine full D2 receptor agonists for non-psychiatric conditions such as Parkinson's disease and restless legs syndrome. Its emergence in those taking partial dopamine agonists including aripiprazole is a newer phenomenon.

Aripiprazole has been noted to adversely modify pre-existing pathological gambling. All of these cases have been at doses of 10–30 mg, except for one reported case of a patient diagnosed with bipolar disorder whose pre-existing gambling was adversely modified at least 2 years after commencing aripiprazole at a low dose of 5 mg.

Aripiprazole has also been noted in several cases to precipitate pathological gambling in those without pre-existing pathological gambling when used at therapeutic doses of 10–15 mg. Only therapeutic doses of 10 mg or more have been reported in the literature as causing problem gambling in those with no history of problem gambling, to our knowledge.

Conclusions

In conclusion, the mechanism by which pathological gambling is precipitated in patients on Aripiprazole may be attributable to Aripiprazole's partial dopamine agonist activity in reward circuits, which are hypothesised as being regulated ultimately by the mesolimbic pathway.

These cases provides further support for the importance of screening for the emergence of pathological gambling and other impulse-control dysregulation when commencing a patient on Aripiprazole

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