# SUCCESSFUL SWITCH FROM COMBINED TREATMENT WITH QUETIAPINE AND LITHIUM TO ARIPIPRAZOLE ONCE-MONTHLY (AOM) IN A PATIENT WITH SCHIZOAFFECTIVE DISORDER AND COMORBID COCAINE USE DISORDER

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A 50-year-old man came under care in September 2016 as an inmate of the Regina Coeli prison in Rome. He had been jailed on August 2016 and he was affected by asthma, childhood onset epilepsy, Insulin Dependent Diabetes Mellitus (IDDM) and HBV-HCV coinfection (since 1992). He presented with a history of intravenous cocaine abuse (since 1998), attempted suicide (in 2006) and cerebellar infarction (in 2014). Physical examination and laboratory tests on admission showed multiple self-harm scars and positive urine test for cocaine.

His medical and criminal history reported a treatment for cannabis abuse since the age of 24 and the use of intravenous cocaine since the age of 28. Although his criminal activity had begun even earlier, with car thefts, bank and apartment robberies, and drug dealing, he declared he was never under investigation or convicted for those crimes.

Later on, cocaine abuse triggered epileptic seizures and cerebellar infarction, causing him to be repeatedly hospitalized over the years, as well as systematically excluded by therapeutic community programs (as his case was labeled as a dual diagnosis). Eventually, his case was referred to the local mental health service to be taken into care with the ICD-9 diagnoses of schizoaffective and substance use disorder in borderline personality.

In 1994, the patient got a steady employment at the municipal waste management company. During the following 22 years, until his retirement due to the worsening of his many conditions (i.e., COPD, IDDM, schizoaffective disorder, liver cirrhosis), he reported particularly stressful life and work rhythms (“I never slept at night, I used to sleep during the day”). Over the years, he went through several psychiatric hospitalizations, some of which requested compulsory treatment. Of those, the most remarkable took place in 2008, following a suicide attempt by drug overdose.

At the time of admission to the prison, the patient was undergoing the following treatment: lithium carbonate 600 mg/day, gabapentin 900 mg/day, promazine 25 mg/day, quetiapine 600 mg/day, diazepam 12 mg/day. Laboratory tests on admission showed a serum lithium level of 0.40 mEq/L. Patient reported he had never had higher serum lithium level,

**Corrispondenza**

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even when he used to take lithium carbonate at the dosage of 900 mg per day. He did not show signs or symptoms of acute psychiatric disorders at the time of admission. Instead, he presented with a hyperthymic temperament, poor impulse control, and tendency to over-react. He also complained of insomnia and moderate levels of somatic anxiety.

After a few weeks of detention, the patient became progressively more depressed with rapid mood switches to elevated mood, irritability, dysphoria, and paranoid thoughts. He also engaged in a variety of self-injury behaviors (superficial cutting of the forearms) that requested seclusion. After a preliminary work to enhance therapeutic alliance (given the history of multiple treatment failures), the patient's treatment was changed by adding oral aripiprazole at the dose of 20 mg per day for the first two weeks, and 30 mg per day there after [1]. Simultaneously, sodium valproate was started at the dose of 500 mg per day, and quetiapine treatment was gradually discontinued.

A few weeks after the introduction of aripiprazole, the patient reported a substantial improvement of his mood with a reduction of anger and rumination about substance use [2 3]. Impulse control also improved, especially following the gradual titration of sodium valproate to 1500 mg per day. During the following weeks, gabapentin and promazine were gradually discontinued, while diazepam was cross-switched to lorazepam. After about three months, the patient was undergoing the following treatment: aripiprazole 30 mg/day, lithium carbonate 900 mg/day (serum lithium: 60 mEq/L), sodium valproate 1500 mg/day, lorazepam 7.5 mg/day.

Although symptom control and treatment adherence were satisfactory, a switch from oral to long-gacting injectable (LAI) formulation of aripiprazole was proposed in view of a future transition from the prison to a therapeutic community for dual diagnosis [4]. The patient agreed with the proposed change, especially in the perspective of further decreasing the pharmacological load due to concurrent medical conditions. In January 2017, the LAI treatment with AOM 400 mg was started and oral aripiprazole was easily discontinued over three weeks [5]. The worsening of a pre-existing lithium-related tremor was noticed after the third AOM administration so that a reduction in lithium dosage was agreed upon, especially considering the established mood stability, the patient's subjective well-being and the many comorbidities. Lithium carbonate was therefore slowly discontinued, while a treatment with lamotrigine (up to 200 mg per day) was gradually introduced. In February 2017, after checking for drug interactions, the patient was admitted to a program for HCV infection treatment with saclatasvir and sofosbuvir.

In March 2017, the patient developed a neurological syndrome characterized by drowsiness, confusion, lethargy, short-term amnesia, and ataxia. Blood tests showed an ammonemia of 145 mcg/dL (normal range: 27-90 mcg/dL). The syndrome was treated by infusing saline solution and branched-chain amino acids. Although hyperammonemia remitted in a few days and was likely caused by the HCV-related liver cirrhosis, a gradual discontinuation of sodium valproate was undertaken to exclude its possible role in the onset of the syndrome.

Over time, the initial compliance to therapy evolved to an active adherence, with the patient determined to maintain the established treatment because of the well-being he was experiencing, especially in terms of physical health (i.e. better glycemic control, improvement of liver function due to the reduced pharmacological load).

Because pre-existing tremor remained the only significant treatment side-effect, an attempt to reduce AOM regimen to 300 mg/month was made with no benefit. Conversely, the AOM dosage reduction led to a relapse of mood symptoms such as irritability and dysphoria. Therefore, the treatment with AOM 400 mg/month was promptly restored, one more time achieving clinical remission. At present, after four months (AOM steadystate), the patient maintains clinical remission and reports subjective well-being and treatment satisfaction by underlining the balance between stabilization and vitality achieved for the first time with AOM.

In this case, the effort towards a personalized treatment, the good therapeutic alliance, and the availability of a safe and tolerable LAI antipsychotic treatment in the context of a comprehensive rehabilitation program seem to have led to an optimal clinical outcome.

## References


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