

## Successful Use Of Electro Convulsive Therapy In The Management Of Methamphetamine Induced Psychosis With Onset During Intoxication

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### Abstract

**Background:** Methamphetamine abuse and methamphetamine induced psychosis is a growing problem.

**Objective:** To illustrate the efficacy of Electro Convulsive Therapy (ECT) as a suitable option in the treatment of methamphetamine psychosis.

**Results:** ECT was successfully employed in the management of severe methamphetamine psychosis.

**Discussion:** This case study indicates although medications are effective in treating methamphetamine induced psychosis, however, ECT is more influential and faster than medications. This is a fascinating finding.

**Conclusion:** To our knowledge we can say that ECT could be an appropriate alternative in the treatment of severe methamphetamine psychosis, therefore this experience of an Iranian patient could add novel information to the literature.

**Keywords:** Methamphetamine psychosis; Treatment; ECT

### Introduction

In recent years policy makers, and health researchers have expended more time and attention to the various aspects of mental disorders including addictions, especially methamphetamine abuse. In the past, methamphetamine was illegally imported to Iran from the west countries, but now it is synthesized illegally in Iran in 'underground' laboratories. We should mention that the methamphetamine synthesized illegally in Iran has high potency, such that a single episode of abuse may be causes delusions of persecution, auditory hallucinations and visual hallucinations [1-6].

We would like to demonstrate our patient with the diagnosis of methamphetamine induced psychosis with onset during intoxication who responded to ECT (Electro Convulsive Therapy).

### Patient Presentation

Mr. A.P. was a 48-year old married driver with fifth grade of primary school education, living in Kazeroon of Fars province with his wife and 4 children. He didn't have any family or past personal psychiatric history except for an episode of psychosis with paranoid delusion which responded completely to medication. He, also didn't report any history of medical problem.

He had been smoking opium daily since 15 years Prior to Admission (PTA) with gradually increasing the frequency of smoking. He began methamphetamine smoking since 1 month ago. He developed paranoid delusion, grandiosity ideation,

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auditory and visual hallucination, seeing imaginary objects, severe aggressive behavior, self-talking and irritability since 2 weeks PTA that was aggravated since 1 week PTA. At last his family brought him to emergency room of Ebnesina hospital. Then he was admitted in dual diagnosis ward.

At the time of admission, we did complete physical, neurological and psychiatric examination. Laboratory tests including screening tests for markers of serology for HIV and hepatitis were carried out which revealed no abnormal finding.

At the time of admission he took risperidone with dose of 6 mg/d which was titrated up to a dose of 8 mg/d by hospital 7<sup>th</sup> day and continued with this dose for 17 days; but no improvement was seen in his mood and psychotic symptoms. On 25<sup>th</sup> hospital day, due to lack of response to medication, bilateral ECT was started for him. He developed good improvement even after the first session of ECT in his mood but still agi-

tated and psychotic; so he received double ECT ( 2 sessions of ECT in the same single anesthesia session) from next sessions and by the fifth treatment (two double ECT and one single) on hospital day 29, he didn't show any psychotic symptoms. He was discharged on the 33<sup>rd</sup> hospital day after receiving a total of 9 sessions of ECT.

## Discussion

This case clarifies ECT could be helpful in treating methamphetamine induced psychosis and methamphetamine withdrawal. Its use in these mental disorders has been reported in the past<sup>[7,8]</sup>. However, a systematic prospective trial of ECT in methamphetamine psychosis is yet to be published, and this report is an important addition to the literature. It is of much interest that double ECT continues to be used with eminent results in leading hospitals in Iran.

## Conclusion

ECT could be helpfully applied in the management of methamphetamine psychosis and methamphetamine withdrawal.

**Conflict of Interests:** There are no conflicts of interest.

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