ECT AND METHAMPHETAMINE PSYCHOSIS

JAMSHID AHMADI*, ALI SAHRAIAN†, SEYED ALI DASTGHEIB†, ARASH MANI†, ARASH MOWLA† AND LAAYA AHMADZADEH†

†Department of Psychiatry, Substance Abuse Research Center, Shiraz University of Medical Sciences, Shiraz, Iran.

Abstracts

Background: Methamphetamine abuse is a growing problem in the world especially in Asian countries.

Objective: To depict the dramatic result of ECT in the therapy of methamphetamine psychosis, dependency and craving.

Results: ECT has a dramatic outcome in the management of methamphetamine-induced psychosis.

Conclusion: ECT can be practically employed in this serious condition which may represent a risk to life.

Keywords: Methamphetamine; psychosis; ECT.

Share
“ECT and Methamphetamine Psychosis”

Abstract

Background: Methamphetamine abuse is a growing problem in the world especially in Asian countries

Objective: To depict the dramatic result of ECT in the therapy of methamphetamine psychosis, dependency and craving.

Results: ECT has a dramatic outcome in the management of methamphetamine-induced psychosis

Conclusion: ECT can be practically employed in this serious condition which may represent a risk to life.

Key words: Methamphetamine; Psychosis; ECT

Introduction

We elucidate a patient with methamphetamine induced psychosis who replied positively to ECT.
In recent decades research investigators and health policy makers have expended more attention and time to the prevalence, prevention and management of mental disorders (1-10) including addiction disorders, especially stimulants abuse (11-13).

In Iran health authorities and also mental health researchers pay more attention to mental problems and substance related disorders including methamphetamine and other amphetamine derivatives (14-23).

Previously, amphetamine derivatives such as ecstasy and methamphetamine was illegally smuggled in from the west, but in these times it is illegally synthesized and produced in Iran in ‘underground’ laboratories. The methamphetamine synthesized and prepared in Iran is of greater power and is usually associated with psychosis. A single occurrence of abuse has been associated with paranoid and persecutory delusions and hallucinations.

According to DSM-IV criteria we ourselves made a reliable and valid scale to assess the withdrawal symptoms of methamphetamine dependency.

**Patient Presentation**
Mr. J. F. was a 27-year old single jobless man with third grade education of guidance school (middle school), living in Shiraz city of Fars province in Iran with his parents. He had family history of bipolar mood disorder in his mother. He didn't report any history of past personal psychiatric or medical history. He had been smoking opium since 8 years prior to admission (PTA) and also IV heroin injection, use of which was left since 5 years PTA. Since 3 months PTA, he began methamphetamine smoking which raised to daily smoking since 2 months PTA. From that time, he became aggressive, threatening others to killing, restlessness, poor sleep and appetite, hyper religious ideation, grandiosity delusion (pretending that he knew about future) and paranoid delusion. Because of these problems, he was brought to Ebnesina hospital emergency room by his mother, then was admitted in ward. When admitted, we did perfect physical and neurological examination which was in normal range. Laboratory tests including screening tests for markers of serology for HIV and hepatitis were performed which showed no abnormal result. Urine drug screening test was positive for methamphetamine only, but the results of other drugs of abuse including cocaine, cannabis, ecstasy, opium, codeine, tramadol, methadone, buprenorphine, and benzodiazepine were negative.

According to DSM-IV criteria, and also complete medical, psychiatric, and substance use history he was diagnosed as "methamphetamine induced psychosis with onset during intoxication"
At time of admission, olanzapine with dose of 10 mg/d was begun for the patient. About 1 week later, due to unresponsiveness, olanzapine changed to risperidone with dose of 6 mg/d and raised to 8 mg/d in 3 days. After 9th day of beginning risperidone (in 16th day of admission), because of serious situation of the patient, double bilateral ECT (2 sessions of bitemporal ECT in the same session of anesthesia with interval of 5 minutes between 2 sessions of ECT) was begun for the patient due to presence of previous psychotic features in psychiatric evaluation. Each session of ECT lasted 15 seconds.

Patient was monitored and interviewed daily by the resident of psychiatry for improvement of psychotic symptoms.

He was especially monitored and interviewed (by a nurse) for methamphetamine withdrawal symptoms, 3 times a day (morning, afternoon, evening).

After receiving 3 sessions of double bilateral ECT (overall 6 sessions of ECT), his psychiatric symptoms subsided significantly (3 sessions of ECT were in the Even days (Saturday, Monday, Wednesday)).
He was discharged after 22th day of admission without any evidence of significant psychiatric problem.

**Discussion**

This presentation clarifies ECT may be beneficial in treating methamphetamine induced psychosis. Its use in these situations have been reported in the past (24-27). However, a systematic prospective study of ECT in psychosis is yet to be published, and this report is an important addition to the literature. It is of interest that double ECT continues to be used with positive impact in these kinds of patients.

**Conclusion:**

ECT can be practically employed in the treatment of this serious condition which may represent a risk to life.

We can conclude that ECT may be a good alternative option in the treatment of methamphetamine psychosis, therefore this case-study could illustrates a new information.

**References**
1- Mackay-Smith M, Ahmadi J; Pridmore S, Suicide In Shooting Galleries ASEAN Journal of Psychiatry, Vol. 16 (1), January - June 2015: 50-56


6- Ahmadi, J. Emotion and feeling; Journal of University Student and Research of Shiraz University of Medical sciences, Vol.1, fall 1993.


9- Ahmadi, J. Behavior therapy and Biobehavior therapy; a comparative view; Journal of Social Sciences and Humanities of Shiraz University, Vol.8. No 1 and 2, fall and Spring, 1992-3.


