Case Report

Management of Methamphetamine-Induced Psychosis by 8 sessions of ECT

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Abstract: At present, methamphetamine abuse is a considerable problem. To present usefulness of ECT in the
management of methamphetamine induced psychosis. ECT can be a good choice in the treatment of this serious
condition.

Keywords: ECT, methamphetamine.

INTRODUCTION

We want to explain our patient with the
diagnosis of methamphetamine induced psychosis with
onset during intoxication that managed and responded
well to 8 sessions of ECT (Electro Convulsive
Therapy).

In Iran psychiatric disorders and substance use
disorders specially amphetamine and methamphetamine
abuse was a minor problem in the past years [1-10], but
has been changing to an important problem since
several years ago. Since few years ago it has been
developed to a major psychiatric problem especially in
the young [11-13].

Formerly, amphetamine and methamphetamine
had been smuggled into Iran illegally from abroad
especially the west, but in recent years it is synthesized
and made in underground laboratories in Iran. The
methamphetamine imported from abroad had lower
potency and as the result caused milder forms of
psychotic or mood disorders in comparison with
synthesized methamphetamine which is made in Iran.
The synthesized form is much more potent and causes
severe consequences especially psychosis. Sometimes
they have developed full psychosis after even one
episode of methamphetamine use. The majority of our
psychotic patients refer with paranoid or persecutory
delusions and also with visual or auditory
hallucinations.

CASE REPORT

Mr. H. GH. Was a 24-year old divorced
unemployed man with fifth grade of primary school
education, living in Shiraz city of Fars province in Iran
with his parents. He didn't have any family or personal
past psychiatric history. He also didn't report any
history of medical problem. He had been smoking
cannabis since 9 years prior to admission (PTA). Since
2 years PTA he started smoking methamphetamine.
Since 3-4 month PTA, he increased frequency to daily
smoking; then developed verbal and physical
aggression, threatening his family, visual hallucination
(seeing someone around his house), persecutory
delusion (believing that someone wanted to kill him),
restlessness and decreased sleep. He was brought to
emergency room of Ebnesina hospital by his family and
admitted in dual diagnosis ward.

At the time of admission, we did complete
physical and neurological examination. Laboratory tests
including screening tests for markers of serology for
HIV and hepatitis were carried out which revealed no
abnormal finding. Screening tests for drugs of abuse
showed positive results for buprenorphine but the
results of other drugs of abuse including cannabis,
etasy, methadone, benzodiazepine and alcohol were
negative.

At time of admission, we started risperidone
with the dose of 6 mg/d for the patient. After one week,
in psychiatric evaluation, no significant change was
observed. So the dose of risperidone was increased to
12 mg/d at 15th day of admission and also biperiden
with the dose of 6 mg/d was started for him for
presentation of extra pyramidal symptoms. However the
patient's condition didn't show any significant
improvement and he became too sedated and drowsy
probably due to increased dose of risperidone or as
withdrawal from methamphetamine. After 5 days (20th

1565
day of hospital course), we started double bilateral ECT. After receiving 4 sessions of ECT, his psychotic symptoms (including sedation) disappeared. After 8 sessions of ECT and on 30th day of hospital course, patient was discharged.

DISCUSSION

This short report indicates ECT may be effective in treating methamphetamine induced psychosis. Its use in these conditions have been reported previously [14,15]. However, a systematic prospective trial of ECT is yet to be published, and this short report is a significant addition to the literature. It is of interest that double ECT continues to be used with high efficacy in leading centers in Iran.

CONCLUSION

ECT can be a good choice in the treatment of methamphetamine induced psychosis.

REFERENCES

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