

ELECTROCONVULSIVE THERAPY FOR THE ACUTELY PSYCHOTIC PREGNANT PATIENT: A REVIEW OF 3 CASES

K. H. LOKE
RAZALI SALLEH

SUMMARY

Three cases of acute psychosis during pregnancy had been treated with electroconvulsive therapy (ECT) during their stay in hospital, due to their slow response to anti-psychotic medication. All three responded well to the treatment and two subsequently delivered normal healthy infants and they did not suffer maternal complications.

The authors feel that ECT is as safe, if not safer than the use of high dosage of anti-psychotic medication and a review of the world literature appears to confirm this view. In addition, the psychotic process usually settles faster with the use of ECT than with the use of anti-psychotic drugs.

INTRODUCTION

Psychotic patients constitute the majority of the in-patients in psychiatric hospitals and schizophrenia is by far the commonest form of psychosis. Acute psychosis occurring in puerperium is common but acute psychosis during pregnancy is rare. The reason for this observation is not clear although endocrine changes occurring during pregnancy may play a role. When psychosis occurs during pregnancy, it may present as a psychiatric emergency e.g. acute catatonia or agitation. This warrants prompt treatment so as to avoid danger to both the pregnant patient and the foetus as well as to other people.

Loke Kwok Hien, M.B., B.S. (Mal.), M.P.M. (Mal.)
Lecturer, Department of Psychological Medicine,
Faculty of Medicine, University of Malaya,
Kuala Lumpur 22-11

Razali Salleh, M.D. (UKM)
Trainee Lecturer,
Universiti Sains Malaysia,
Penang.

Treatment of acute psychosis consists of two choices - (a) high dosage of anti-psychotic agents and (b) electroconvulsive therapy (ECT). Both modalities of treatment carry their own hypothetical risks and there are not enough of comprehensive studies on this treatment area. However, the available literature suggests that ECT is as safe as, if not safer than, the use of drugs. Moreover ECT appears to be more effective within a given period of time in controlling acute psychosis.

In 1982, five pregnant schizophrenic patients were admitted to the psychiatric ward for stabilisation of their psychoses. Of these, three had to be treated with ECT as they did not settle with medication and they were each given a course of either five or six ECT's and all three did not suffer maternal complications and two of them delivered healthy babies with no evidence of foetal damage. These cases are described below.

CASE I

A 21-year old Malay housewife, GI Po and with a period of amenorrhoea (P.O.A.) of 26+ weeks, was admitted into the ward on 11th March, 1982 for the complaints of being suspicious of her father and being unmanageable in her behaviour at home. She had no past history of mental illness. The diagnosis of schizophreniform disorder according to the DSM III (A.P.A., 1980)¹ was made.

In the ward, she was rather restless, her affect was flat and her talk was bizarre and irrational. Despite oral Chlorpromazine 200 gm. q.i.d. and then Haloperidol 6 mg. q.i.d., she remained psychotic and eight days later, she was started on a course of five ECT's following which her psychosis subsided.

She subsequently had a spontaneous vaginal delivery (SVD) with no maternal complications. Her baby weighed 3.2 kg., had an Apgar score of 9/10 and did not exhibit any foetal damage or abnormalities.

CASE II

A 25-year old Chinese housewife, G2 P1, with a P.O.A. 26+ weeks, was admitted into the ward on the 6th of April, 1982 for a relapse of her chronic schizophrenia illness which she had suffered for the past six years. Her illness had not been stabilised because of poor family support, defaultment of medication and having no insight into her illness. The present episode was precipitated by her fear of her husband selling her forthcoming baby.

Despite being on a month's medication of Haloperidol 4.5 mg. t.d.s and Chlorpromazine 50 mg. t.d.s, she remained fatuous, hallucinated and agitated. A course of six ECT's were administered following which her psychosis was stabilised to a large extent.

She subsequently had a breech presentation and delivered at term a 3.3 kg. healthy male infant with an Apgar score of 6/10 but without any foetal abnormality.

Following her delivery, she had a further relapse of her illness and she was given a further eight ECT's.

CASE III

A 22-year old Chinese housewife GI Po with a P.O.A. of 26+ weeks was admitted to the ward on the 3rd of November, 1982 for treatment of a relapse of her chronic schizophrenic illness of eleven years' duration. She had three previous admissions into Hospital Bahagia, Ulu Kinta and she was just discharged from there a week prior to her present admission.

She was rather agitated and was both physically and verbally abusive. Despite oral Chlorpromazine 100 mg. t.d.s. and additional 100 mg. intramuscularly P.R.N., she remained unmanageable. On the 5th of November, 1982, she was started on a course of six ECT's, following which her psychosis settled and she was sent on home leave.

All the three cases were assessed by both the anaesthesiologist and the obstetrician prior to the administration of ECT. None of the two patients who delivered, suffered any maternal complications

both prior to and following ECT. It is interesting to note that in all three cases, the psychotic process occurred around the twenty-sixth week of gestation.

DISCUSSION

Psychosis occurring prior to and following pregnancy is commonly encountered but psychosis occurring during pregnancy is rare. When a pregnant lady becomes psychotic, prompt treatment is essential because of possible danger to both the mother and the foetus (e.g. malnutrition and dehydration during catatonia and injury sustained when the patient is agitated) in addition to being a danger to others.

Treatment has always been a controversial issue though there are two main effective methods available viz. the use of high dosage of anti-psychotic agents and ECT. Both schools of thought have their own following and to date, no satisfactory study has been made owing to the difficulty of obtaining data from psychiatric patients as the rate of default of follow-up is high.

The clinicians who advocate the use of anti-psychotic agents rather than the use of ECT cite such risks, if ECT is given, as anoxia to both mother and child, precipitation of labour, traumatic damage to both mother and foetus, risks involved during anaesthesia and risks involved in the mother who has compromised pregnancy e.g. heart disease, diabetes and Rhesus isoimmunisation. Those clinicians who do not favour the use of high dosage anti-psychotic agents cite such risks, if anti-psychotic agents are used, as the slow onset of action of the drugs taking up to three weeks; the risk of teratogenic effects; the risk of development of medical complications when the drugs are used in high dosages e.g. premature labour, dystonia, jaundice and respiratory distress; the risk of non-compliance with medication by the patients and the risk of the use of the drugs in suicide attempts.

Review of recent literature revealed that there is a risk of development of congenital abnormalities in infants who are born to parents who have been administered psychopharmacologic agents such as barbiturates and lithium carbonate.^{2,3}

Sobel⁴ carried out a comparative study on the effects of ECT and drugs on both the mothers and infants. The foetal damage rate of infants born to mothers (N = 33) who were given ECT as late as the 8th month of gestation, was 7 percent and this is comparable to the rates for the group whose

mothers (N=52) were given high dosages of Chlorpromazine (8 percent) and that of the control group (N=202) of normal mothers (6 percent). However, in the group whose mothers were given Chlorpromazine, there was a mentally retarded child, a still-birth, a spontaneous abortion and a premature infant, while the casualties in the ECT group had a case of anencephaly and congenital lung cysts — both of which were not directly attributable to the effects of ECT.

As for the mother, the ECT group suffered a case of severe vaginal bleeding and two cases of severe abdominal pain which subsided on stopping the ECT. Three mothers who were given Chlorpromazine suffered threatened abortions.

In the group of patients (N=17) who were given Insulin coma therapy, there were four foetal deaths and two with congenital and developmental abnormalities giving a foetal damage rate of 35 percent.

Hence, it can be seen that while Insulin coma therapy is definitely a risky procedure, ECT is at least as safe as, if not safer than, the use of high dosage of chlorpromazine.

In order to enhance the safety of the mother and the foetus, Remick and Maurice⁵ proposed the following precautions to be taken prior to the administration of ECT:

- (1) a thorough physical and pelvic examination should be performed especially in an unbooked case.
- (2) the oostetrician should be regarded as part of the management team

- (3) high risk pregnancies e.g. premature labour, multiple pregnancies, hydramnios, antepartum haemorrhage, heart disease and Rhesus isoimmunisation are to be considered as relative contraindications.

- (4) external monitoring of the foetus before and after ECT should be performed.

In addition, the authors advocate that a thorough explanation of the relative risks involved should be given to both the patient and her spouse and the consent for the procedure should be obtained from both the spouses. This is to minimise medico-legal risks.

ACKNOWLEDGEMENT

The authors would like to thank Associate Professor M.P. Deva for his kind advice. We would also like to thank Miss S. Ponniah for typing the manuscript.

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