

## POST PARTUM PSYCHOSIS

by

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Of all the ailments to which the human body and mind are vulnerable, none is more catastrophic than the serious psychiatric illness following child birth, "The Post Partum Psychosis". In a typical case the woman embarks upon child bearing without a previous history of any psychiatric illness. She may receive excellent medical and nursing care during the pregnancy and emerge from childbirth with the gratification of having reached the goal which she anticipated for nine months. Then within days, weeks or months, either suddenly or with slow progress she changes from a competent, productive and a happy member of society to a person paralysed by depression or tormented by pervasive fears and perhaps by hallucinations and delusions.

The occurrence of psychosis in postpartum period is thought to be believed from the days of Hippocrates, Celsus and Galen. Esquirol (1838) reported on 92 cases and noted that postpartum illness could occur in a variety of syndromes and several causal factors like heredity, previous attacks before childbirth, emotional instability and traumatic events

could precipitate an attack. Marce (1958) studied 310 cases of illness associated with childbearing. Of these 180 developed psychosis in the first six weeks of the puerperium and the rest afterwards. Adams (1886) (quoted by Hamilton) cited a case of a woman given birth to twins, experienced severe insomnia and restlessness on the sixth day postpartum. Levin reported 76 cases of postpartum psychosis.

Barring a few occasional reports, the problem of psychiatric illness in the postpartum period was not thoroughly studied and investigated. Since the problem lies midway between obstetrician and psychiatrist it failed to receive attention in either field. The purpose of this study is to study these cases from an obstetric view point, classify them into different types and treat them accordingly.

### *Material and Methods*

Ninety-eight patients admitted in the Obstetric and Psychiatric departments of B.J. Medical College and Sassoon General Hospitals, Poona, during the period of 1st January 1968 to June 1971 were studied. Only those cases that were admitted within three months after delivery were included in this study. A detailed history was taken from the nearest relative about mode of onset of symptoms and their duration. A general background of the family regarding its economic status, the

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number of earning members and of any hereditary factor was noted. History regarding the course of pregnancy and the nature of delivery, were noted.

A thorough general, obstetric and psychiatric examinations including narcoanalysis with I.V. pentothal, 2.5% about 2 to 5 ml was done in all cases.

#### Observations

##### Incidence

There were 17732 deliveries during the period between January 1968 and June 1971. Of these, 38 patients developed psychosis in the puerperium giving an incidence of 0.22%. The rest of the cases were admitted in either obstetric or psychiatric department, but were delivered outside.

TABLE II  
*Obstetric Factors*

Factor	No. of Cases	Percentage
Anaemia	75	76.5
Toxaemia	17	17.4
Episiotomy	10	10.3
Forceps delivery	2	2.1
Caesarean section	6	6.1
L.S.C.S. + sterilisation	1	1
Sterilisation	7	7.2
Puerperal sepsis	10	10.3

Anaemia was found in 75 out of 98 (75.3%) of cases. Psychosis occurred in 17 cases of toxaemia, Sepsis was responsible for 10.3% and obstetrical operations contributed to 26 (26.5%) of cases.

TABLE I  
*Age and Parity*

Age in years	Parity						Total
	I	II	III	IV	V	VI	
16-20	10	6	-	-	-	-	16
21-25	9	7	4	3	-	-	23
26-30	6	5	10	2	2	5	30
31-40	3	0	3	2	5	7	20

#### Age and Parity

The youngest was 16 years and the oldest was 40 years of age. Majority of the patients i.e. 49 (49.3%) belonged to the age group of 16-25 years. Of the 98 cases, 37 (37.6%) were primigravidae. There were 19 (19.4%) cases in parity over IV.

#### Socio-economic State

Seventy-one (71.3%) belonged to the lower income group, 17 to the middle income group and in only 10 cases (10.8%) psychosis developed in the high economic group.

TABLE III  
*Common Symptoms With Their Onset After Delivery*

Onset of symptoms after delivery in days	No. of patients
1-15	38
16-30	23
31-45	14
46-60	8
61-75	6
76-90	9

It is seen that the maximum number of cases came within the first month after delivery. The general symptoms were

abnormal behaviour, talking irrelevant, eats and sleeps poorly, does not work or look after the child, keeps self untidy, flights of ideas, mutters to self and hallucinations, etc. After thorough examination, including narcoanalysis, patients were classified into the following types of psychosis.

(1) *Maniac Depressive Psychosis*: It is the commonest of all and occurred in 26 cases (i.e. 26.6%).

(2) *Schizophrenia*: This is the second commonest disorder occurring in 16 (i.e. 16.3%) cases.

(3) *Depression*: Fifteen patients (15.4%) came with symptoms of depression.

(4) *Neurosis*: This was present in 11 cases.

(5) *Toxic Delirium*: These patients had fever, delirium, foul smelling discharge and visual hallucinations. The patients were found to be restless, probably due to toxic state.

(6) *Confusion*: These four patients were talking in an irrelevant manner and were in a confused state of mind not realizing what was wrong with them and why treatment is required.

*Definition*: There is no fixed definition of this condition. Savage (1875) noticed that two days after delivery women became excited and sleepless for which he used the word post partum psychosis. Seager (1960) stated that it is an entity after childbirth which occurs within two months and is characterised by delirium, insomnia etc., Hemphill (1952) said that it is an illness after childbirth, with subsequent attacks related to menstruation. Zilboorg (1931) and Dentsch (1947) has defined 'post partum psychosis' not as a specific entity but a breakdown into schizophrenia or depression. Early in 19th century it became the custom to

separate events and diseases after childbirth into categories. (i) Puerperal, if within six weeks of childbirth and (ii) 'Lactational' if after six weeks. Strecker and Ebaugh (quoted by Hamilton) stated that post partum cases are identical as non-puerperal cases and there is no separate entity as 'post partum psychosis'. Pugh *et al* (1967) stated that it is a term to be used where the psychosis occurs within three months after childbirth. In the present series the same criteria were taken to define cases of post partum psychosis.

*Incidence*: Marce (1958) quoted an incidence of 2.2 per 1000 deliveries i.e. 0.22%. Hemphill (1955) reported 0.17% while Madden *et al* (1956) reported 4.5%. The incidence of 0.22% in our hospital deliveries corresponds with the incidence quoted by Marce and Hemphill.

*Age and Parity*: Hemphill (1955) reported that in his series the maximum number of cases occurred between the ages of 21 and 25 years, whereas in our series it varied from 16 to 30 years. This is probably due to the fact that our women marry at an early age. Regarding parity, 37.6% cases were seen in primiparae and this corresponds with the higher incidence of 57% quoted by Hemphill. It is also seen that no case occurred in parity over IV in Hemphill's series, while there were 19 cases in our series.

#### *Aetiological Factors*

(1) *Early Marriage*: This was responsible for 20 cases (20.4%) of psychosis. All these cases were married very early and became pregnant soon after marriage. Young primiparae being inexperienced is not physically and mentally prepared to bear the responsibility of childbearing and rearing, with the result the chances of physical and mental trauma after

childbirth are tremendous. This may culminate in hostility towards the baby. All the 20 cases were hostile towards their babies and refused to feed and look after them.

(2) *Elderly primigravida*: There were 9 cases of elderly primigravida. These women had fear complex and had visual and auditory hallucinations saying that people around will kill their babies. These women also suffered from fear complex that the child will be defective and deformed or may die from any trivial condition and this led them to psychosis.

(3) *Unwanted Pregnancy*: There were 3 cases of illegitimate pregnancy who did not want the child and developed psychosis. Also, there were 9 cases of multipara who did not want any more addition to the family.

(4) *Fear of responsibility of Motherhood*: Seventeen patients developed psychosis because they were afraid that they would be unable to play the role of mother, as they became pregnant soon after marriage.

(5) *Socio-Economic Status*: Seventy-one cases belonged to the poor class and in all of them it was found they could not maintain the family. Dietary deficiency and uncongenial atmosphere in the house may be contributory factors in causing psychosis.

(6) *Previous Psychosis*: In none of the 98 cases there was any history of psychosis before marriage or during pregnancy.

(7) *Unwanted sex of the baby*: Two cases developed psychosis because they delivered female babies, both had 4 female babies and fondly hoped that they will deliver a boy in this pregnancy.

(8) *Loss of the baby*: In one case the patient developed psychosis after the death of the baby. She was a primigravida

for whom caesarean section was done for prolonged labour.

(9) *Obstetrical Factors*: Mild degree of anaemia was present in the majority of cases, but severe anaemia which required investigations and treatment occurred in 30 cases.

(10) *Simmonds disease*: Simmonds described psychiatric disturbances in known cases of post partum pituitary necrosis. There was not a single case of this type in our study.

(11) *Role of adrenal cortex*: Corticosteroids produce peculiar alertness, insomnia and euphoria in the beginning, while later they produce acute mania or depression.

Venning reported that both 17 Ketosteroids and 17 hydroxysteroids increased in case of post partum psychosis. However, subsequent studies showed a fall in the levels of the steroids by the fourth post partum day. Jacobides (1957) in his study of post partum psychosis observed high values due to hypersecretion of adrenal cortex in the initial phase of excitement; he also observed that with improvement the values fell towards normal. Doibrener and Co-worker (1949) and Reifenstein (1956) stated that placenta produced steroids which suppress adrenal cortical steroids and with expulsion of placenta the adrenal cortex resumes its former role and these changes in adrenal cortex react in such a way as to cause post partum psychosis. 17-Ketosteroids estimations were done in 15 cases by Zimmermanns method. The values ranged from 1.5 to 4.5 mgs. in 24 hours sample. These values were quite low and it is probable that adrenal plays no role in causing post partum psychosis.

*Symptomatology*: Psychiatric symptoms occurred as early as the third day in 14 (14.3%) cases. However, the maximum

number of cases developed psychosis within one month after delivery. Of the different types of psychosis, manic depressive psychosis is the commonest variety which occurred in 26 cases (26.5%). This incidence is lower than the 50% quoted by Mayer *et al* (1958) and Hemphill reported 31.4% in (1952). The incidence of schizophrenia in 16 cases (19.5%) is more than the 14% quoted by Mayer *et al* (1954) but less than 65% quoted by the same authors in 1958. The incidence of depression was less than 31.2% quoted by Hemphill in 1952. In our series there were 11 cases (11.2%) of neurosis. This is slightly less than the 20% quoted by Mayer *et al* and more than 6.2% quoted by Hemphill in 1952. Toxic delirium occurred in 11 cases and the mildest of all the types of psychosis, confusion, occurred in 4 cases.

**Treatment:** In days gone by, various types of drugs were given with a view to make the patient quiet and sedate her. These drugs included morphine, barbiturates, chloral hydrate, and paraldehyde. Of these only paraldehyde is used liberally today. Chlorpromazine group of drugs were introduced in 1952 and since then are widely used in the treatment of psychosis. This group of drugs induce their primary calming and antipsychotic effect by depressing the central nervous system in a manner which differs from depression produced by hypnotics, in that no unconsciousness results. This group has a selective action on the ascending reticular activating system in the brain. In all 55 cases were given one or the other combination of these drugs. Of these combination chlorpromazine and Eskazine were given in 42 cases. Along with the above Pacitane (trihexiphenidyl hydrochloride) was given to counteract extrapyramidal side effects likely

to be caused by the above drugs. In addition to the above drugs meprobamate, Equanil, was given in 10 cases. Also Imipramine (Tofranil) was given in 15 cases of depression.

**E.C.T.:** All patients of schizophrenia manic depressive psychosis were given E.C.T. as soon as they were admitted. In 12 out of 15 cases of depression, 6 out of 11 cases of neurosis and one case of confusion, E.C.T. was also given. In all E.C.T. was given in 71 out of 98 cases. In all mild cases it was given three times a week. On an average 20 E.C.T.'s were required for clinical improvement. In severe cases atleast 50 ECT's were required. One month time is taken as the time for immediate response. Of the 71 cases of E.C.T. initial improvement occurred in 63 (88.7%) cases. Of these only 38 came for follow-up and 28 showed clinical improvement and improved psychologically. Hemphill reported 73% response and improvement after ECT.

**Psychotherapy:** Along with the other lines of treatment psychotherapy was given. The aim of psychotherapy is to bring about such a state that the conscious ego with its reason, logic and critical abilities may assume control when it is confronted with unrealistic pleasure seeking infantile demands that cannot be satisfied, by reality. In neurotic patients there is over anxiety and when the repressed material approaches consciousness the patient comes out with whatever problems or difficulties she has. This helps the therapist to gain insight into the problems of the patient and helps the patient to face the situation. In short, the patient develops confidence in her doctor and the physician in turn helps in giving understandable, realistic and uncomplicated explanation for her distress.

TABLE IV  
Results of Treatment

Treatment	Type of Cases	Total No. of cases	Initial response		Follow-up	
			Improved	Not improved	Cases	Relapse
Drugs alone	Mild depression neurosis, toxic delirium and confusion	27	27 (100%)	-	27	-
E.C.T. Drugs	M.D.P. schizophrenia severe cases of depression neurosis and confusion	71	63 (88.7%)	8 (21.3%)	28 (73.5%)	10 (26.5%)

### Summary and Conclusion

1. Ninety-eight cases of post partum psychosis have been studied.
2. 49.3% belonged to the age group of 16 to 25 years.
3. There were 37 primigravidas and rest were multiparas.
4. Seventy-one (71.3%) belonged to the low socio economic group.
5. Maximum number of cases i.e. 61 came within first month after delivery.
6. Twenty-six cases suffered from M.D.P. and 16 (16.3%) from schizophrenia, 15 (15.4%) from depression, 11 cases from neurosis 11 from toxic delirium and 4 from confusion.
7. Anaemia was found in 75 out of 98 cases. There were 17 cases of toxæmia and 10 cases of puerperal sepsis who developed psychosis. Obstetrical operation contributed to 26.3%.
8. Seventy-one out of 98 cases were given ECT along with drug treatment and immediate response occurred in 63 (i.e. 88.7%) cases.
9. Only 38 came for follow-up and 28 (73.6%) showed clinical improvement.
10. Eleven cases showed relapse giving a relapse rate of 26.4%.
11. Combination of ECT and drugs formed the treatment of choice in most of the cases of post partum psychosis.

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