Postpartum Depressive Disorder and Postpartum Psychosis

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- **Postpartum period :**
  - The first 12 months after birth
- **Puerperium period :**
  - **DSM5:** first 4 weeks following childbirth
  - **ICD10:** within 6 weeks of delivery
  - **Others:** 3-12 months following a live birth

Postpartum Blues
(baby blues)

Pathogenesis :

unknown

Perhaps hormonal changs at parturition

85%(10-15%PPD&0.1%-0.2%PPP)

Clinical feature

- Mild depressive symptoms:

  (Dysphoria / sadness /tear fullness/ irritability/anxiety)

  (Insomnia /decreased concentration)

- in 40-80% women
- Within 2 or 3 days of delivery (some:5day)
- Resolve within 2 weeks

Risk factors

- Antepartum depressive symptoms
- Stress around child care
- Psychosocial impairment
- History of premenstrual mood changes, or oral contraceptive use that is associated with mood changes
- Depressive syndromes predating pregnancy
- Family history of depression

- **DSM5:** Adjustment disorder with depressed mood

- Increase risk of developing postpartum minor depression or major depression

Management postpartum blues

- **conservative management :**
  - reassurance
  - support for the woman and her family
  - Adequate time for the patient to sleep and rest is essential
  - recruiting someone else to care for the baby at night(manage insomnia).
- **if insomnia persists**
  - cognitive behavioral therapy
  - pharmacotherapy
  - both may be indicated.

- worsen or symptoms persistency beyond two weeks
- suicidal ideation

  - **the patient should be evaluated for postpartum depression**

Postpartum Depression

- **Often do not recognize**
- **Overlapping complaints**

  (fatigue difficulty sleeping, low libido)

- Reluctance to complains (social expectation)

Risk factors

- Past history of depression (prepregnancy, antepartum, or postpartum) **major risk factor**
- History of physical or sexual abuse
- Current subsyndromal depressive symptoms
- Young age
- Immigrant status
- Unplanned pregnancy
- Thoughts of terminating the pregnancy
- Stressful life events (eg, marital conflict) during the 12 months prior to delivery
- Lack of social and financial support
- Living without a partner

Risk factors continued

- Intimate partner violence
- Unemployment for either the mother (no job to return to) or the head of household
- Sick leave during pregnancy
- High number of visits to prenatal clinic
- Pregestational or gestational diabetes
- Congenital malformation in the infant
- Not breastfeeding
- Childcare-related stressors such as inconsolable infant crying
- Personality traits (high neuroticism and high introversion)
- Positive family psychiatric history
- Poor relationship between the patient and her mother

Pathogenesis

- **Unknown , may be :**
  - Hormonal changes
  - Genetic susceptibility
  - Major life events

Clinical manifestation

- Changes in somatic functions

  (Sleep –Energy – appetite –weight- libido)

- Anxiety and panic attacks
- Irritability and anger
- Feeling inadequate, overwhelmed, or unable to care for the baby
- Feelings of shame, guilt, and having failed as a mother
- Rumination about harming oneself or baby
  - scary thoughts
  - ego dystonic
- should be evaluate for psychotic symptoms also normal expectation

Course of illness

- Onset occurs before or during pregnancy roughly 50%
- ↑ the risk for future episode of major depression both puerperal and nonpuerperal
- **Untreated PDD :**
  - resolve spontaneously
  - Persistent (chronic) depressive disorder

Adverse outcomes

- Impaired bonding
- Impaired infant and child development
- Marital discord ($\leftrightarrow$)
- Suicide
- infanticide

Initial evaluation

- Similar to that of non- postpartum individuals
- Assessment should address suicidality and psychosis
- Postpartum blue may represent that initial phase of major depression

Screening

- Even in pregnancy
- Routine screening for depression at the first postpartum obstetrical visit and the six-week postpartum visit

If positive →clinical interviews and treatment

Alternatively

Surveillance for maternal depression can be performed at pediatric visit in the first 12 month postpartum

Screening tools

- EPDS: Edinburgh Postpartum Depression Scale
- MDQ

Ask question such as

- During the past month, have you often been bothered by feeling down, depressed, or hopeless?" and "During the past month, have you often been bothered by having little interest or pleasure in doing things?”
- Intrusive thoughts about harming herself or baby

Paternal Postpartum Depression

- Moderate , Positive correlation between the incidence of paternal and maternal PDD
- ↑risk of marital discord (after controlling of maternal depression)
- Adversely affect an child development
  - Behavioral problems /Hyperactivity/ ODD/Conduct /Anxiety disorder

Risk factors

- Prenatal anxiety or depression
- Lifetime history of severe depression
- Marital discord
- Maternal prenatal depression
- Other children in the family

Management

- Exclude medical cause for mood disturbance :

Thyroid dysfunction Anemia

Earlier initiation of treatment →better prognosis

prophylaxis

- **Euthymic, postpartum patients:** a prior history of depression with successfully treated with antidepressants in the past

  prophylaxis with →the previously used antidepressants

- Alternatives:
  - interpersonal psychotherapy
  - psychosocial interventions
  - watchful waiting (clinical interviews every one to four weeks, depending upon clinical urgency)

prophylaxis

- **Euthymic, postpartum patients:** a prior history of depression without successfully treated with antidepressants in the past

→prophylaxis with:

- interpersonal psychotherapy
- psychosocial interventions.

Alternative :

- pharmacotherapy
- watchful waiting

prophylaxis

- For women who discontinued successful maintenance pharmacotherapy for depression before or during pregnancy:
  - resume the previous regimen after delivery when patients are medically stable, particularly for patients with prodromal symptoms
  - Doses typically are titrated up
- **Alternative :**
  - resume antidepressants in the third trimester.
  - Higher doses are often required in the third trimester (expanded plasma volume, hepatic enzyme induction, and increased drug clearance)

- Omega-3 fatty acids administered during pregnancy do not appear to prevent postnatal depression
- Treatment of insomnia in the third trimester of pregnancy reduce rates of PPD.
  - Screening & treatment of sleep disturbance

TREATING POSTPARTUM MAJOR DEPRESSION

- Obstetricians may initiate treatment
- **patients with suicidal or homicidal ideation:** by both a psychiatrist and obstetrician.
- **should bear in mind :** patients may be reluctant to follow through with referrals because of fear, shame, and hopelessness.

Mild to moderate major depression

- Either no suicidal or homicidal ideation or behavior, or ideation that does not pose an imminent risk (thoughts that family members would be better off if the patient was dead; or fleeting thoughts of killing oneself, with nonexistent or vague plans to commit suicide and no intent)
- No psychotic features
- Little to no aggressiveness
- Intact judgement such that the patient or others are not at imminent risk of being harmed

- outpatient clinic or partial (day) hospital program.
- psychotherapy . (specially lactating patients)
- **Alternatives :**
  - pharmacotherapy is a reasonable if psychotherapy is not successful, /declined or not available /if the patient has previously responded to antidepressants.
- involving the partner and other family members may help in treating women with postpartum depression

Severe major depression

- **Suicidal or homicidal ideation or behavior**
- **Aggressive behavior**
- **Psychotic features**
- **Catatonia**
- **Poor judgment that places patients or others at imminent risk of harm**
- **Grossly impaired functioning**

- hospitalization
- First-line : pharmacotherapy(SSRI)
  - Patients not breastfeeding
    - similar to the choice in non-postpartum patients.
  - Breastfeeding patients
    - Anti depressant：1.prior treatment history 2.potional adverse effects
- **Continuation treatment** is generally indicated for patients who respond to acute treatment of unipolar major depression, and additional **maintenance treatment** is indicated for patients with an increased risk of recurrence.(6-12month if first episode)
- Hormonal therapy is generally avoided

- **Direct assessment of infant exposure :** infant serum concentration
- A ratio of infant to maternal serum drug concentration >10% may be clinically significant
- **Lactating patient :** not be discourage from breast feeding

- All psychotropic medications are transferred to breast milk in vary amounts .(fatty milk)
- Important choosing cost and benefit
- Low birth weight , sick , premature infants

Postpartum psychosis

- Postpartum psychosis is the severest form of mental illness in that category characterized by:
  - extreme confusion
  - loss of touch with reality
  - paranoia
  - delusions
  - disorganized thought process
  - hallucinations
- It affects around 1-2 /1000 females of childbearing age and usually happens immediately within days to the first six weeks after birth.
- Estimated global prevalence of 0.089 to 2.6 per 1000 births, (low incidence rate but harmfull)

Etiology

- Complex multifactorial origin.

- Risk factors include:
  - single most important risk factor
    - A history of bipolar disorder
    - History of postpartum psychosis in a previous pregnancy
  - Family history of psychosis or bipolar disorder
  - History of schizoaffective disorder or schizophrenia
  - Discontinuation of psychiatric medications during pregnancy.

Other factors:

- Like advanced maternal age
- Low birth weight of the baby (less than one hundred fifty grams)

  Maternal diabetes and high birth weight of the baby (more than 4500 gr) appear to be protective against puerperal psychosis in first-time mothers during the first ninety days.
- Negative pregnancy birthing outcomes like congenital malformations
- Preterm birth (less than 32 weeks)
- Fetal/infant death

- Lack of sleep and hormonal fluctuations after birth, especially the rapidly falling levels of estrogen.

- In one study conducted on parous women with bipolar disorder, sleep loss triggering episodes of mania was considered to be an essential marker to determine predisposition to developing postpartum psychosis. The conclusion was that women who reported sleep deprivation leading to manic episodes were twice as likely to have experienced an episode of postpartum psychosis at some point in their lives.

- Careful and thorough history and neuropsychiatric evaluation is required

- The clinician should note whether the patient with a psychiatric history who was previously stable on psychiatric medications was compliant with her prescribed psychiatric medications throughout the pregnancy as often medications are discontinued before or during pregnancy.

- Postpartum psychosis has been underdiagnosed and underreported because there are no standard screening procedures in place during the prenatal and postnatal period.

- Directly assessing patient's mood and feelings of well being throughout pregnancy and postpartum (identify signs of depression mania):
  - EPDS (Edinburgh postnatal depression scale)
  - MDQ (mood disorder questionnaire) are quick

Following a thorough history and complete physical examination, the following initial labs help identify organic causes of psychosis.

- A complete blood count(CBC)
- Electrolytes
- Blood urea nitrogen (BUN)
- Blood glucose
- Creatinine
- Vitamin B12
- Folate
- Thiamine
- Calcium
- Thyroid function tests
- Liver function tests or LFTs
- Urinalysis
- Urine drug screen
- Urine/blood cultures for patients with fever
- CT/ MRI brain

Differential Diagnosis

- The psychiatric differential may include:
- Bipolar 1 relapse (current and past history of low and high moods plus family history)
- Unipolar major depression with psychotic features with postpartum onset
- OCD and schizophrenia or schizophreniform disorder (past treatment history and medication non-compliance)
- Hyperthyroidism-thyroid storm as in Graves disease (thyroid function tests)
- Fever due to these conditions: infections such as sepsis, meningitis, encephalitis, (complete blood count/ESR /differential, lumbar puncture)
- Diabetic ketoacidosis (fasting blood glucose, HbA1C, history of glucose tolerance during pregnancy)
- Substance misuse (drug screen for drugs of abuse)
- Uremia (kidney function tests, BUN, creatinine)
- Hepatic encephalopathy (LFTs, AST, ALT, hepatitis screen if a history of exposure or disease, alkaline phosphatase, bilirubin direct/indirect, lipase)
- Vitamin B12 deficiency
- Thiamine deficiency
- Hypercalcemia
- Pregnancy-induced hypertension and stroke due to preeclampsia or eclampsia (CT/MRI to rule out stroke)
- Metabolic or nutritional causes (electrolytes)
- Immunological causes like SLE

- Certain drugs like:
  - Corticosteroids
  - Antivirals (acyclovir and interferon)
  - Antibiotics (gentamicin, vancomycin, isoniazid)
  - Anticholinergic medicines like atropine, benztropine
  - Sympathomimetic stimulants like amphetamine, ephedrine
  - Theophylline.

- Substance abuse, medication history, and a history of any other recent major stressors or traumatic events merit attention.
- The care team should also evaluate the patient's social support network, including the role and responsibilities of her partner and other available caregivers in the family.

- Safety of the patient and newborn is of utmost importance, and thus, immediate hospitalization is warranted if there is a risk of harm to either one.

Prognosis

- The proper identification of risk markers would enhance the ability to prevent and manage the condition.
- Having one episode of postpartum psychosis predisposes the patient to another episode with a future pregnancy.
- Patients with a history of bipolar disorder are predisposed to developing a relapse during and after pregnancy and should be carefully evaluated and counseled regarding the risk in future pregnancies.

Deterrence and Patient Education

- Postpartum psychosis not only affects the mother and the infant but has an equal impact on families and caregivers. It is crucial for the treatment team to be able to understand the magnitude of physical and emotional stress the partner and other family members are going through and address all their questions and concerns in an empathetic manner.

- Patients should be screened for signs of mental illness during pregnancy and after childbirth.

Treatment / Management

- Postpartum psychosis usually has a sudden onset but is a brief and limited illness which responds rapidly to treatment. Mothers who are at risk for harm to themselves or the baby require immediate hospitalization. There are no current guidelines to manage postpartum psychosis, and the management depends on the cause.

- Once organic causes have been ruled out, medications to control acute psychosis may be started. These include mood stabilizers, atypical antipsychotics, and antiepileptic drugs.

- Common drugs from these classes include lithium, sodium valproate, lamotrigine, carbamazepine, benzodiazepines, quetiapine, olanzapine, etc.

Treatment / Management

- For women with a previous history of postpartum psychosis, the recommendation is high therapeutic target level lithium prophylaxis (0.8 – 1 mmol/liter) to prevent future episodes. In that case, lithium blood levels should be obtained twice a week for at least the first two weeks postpartum. Women should abstain from breastfeeding.

- Not only does breastfeeding lead to lack of sleep and exhaustion to the mother (which can further exaggerate her symptoms) but, oxytocin, the hormone that regulates breastfeeding, also causes insomnia in breastfeeding mothers. That is why it is important to discuss the pros and cons of breastfeeding with the patient and her family.

Treatment / Management

- Electroconvulsive therapy (ECT) is recognized as a means of treatment with a tremendous benefit in patients with psychosis related to schizophrenia and schizoaffective disorder refractory to antipsychotic pharmacotherapy.
- ECT is also considered a safe and effective intervention in patients with acute relapse or exacerbation of psychosis in the postpartum period with the risk of minimal complications.

- prophylactic treatment for women with bipolar disorder throughout pregnancy is a recommendation for women at high risk of relapse, benefits and risks merit careful discussion.
- Use of lithium during pregnancy is controversial
- The patient and the family must make an informed decision, carefully weighing the risks and benefits of medication management during pregnancy.(lithium has a 2.8% rate of causing major congenital malformations, valproate is highest at 5 to 8%, and carbamazepine 2 to 6%).
- As for atypical and typical antipsychotics, unclear as there are no significant studies during pregnancy.

- Non-pharmacologic treatment like psychotherapy is a good adjuvant treatment alongside psychopharmacology and ECT has a track record as a safe and effective means of treating an acute episode during pregnancy alongside or without psychiatric medications.

- When a patient seeks prenatal or postnatal care, primary care providers should pay attention to the entire bio-psycho-social model and not just the patient's physical and medical issues related to pregnancy.

- Uptrend in distress and psychiatric symptomatology in pregnant women during the coronavirus disease 2019 pandemic

Nicolas Berthelot, Roxanne Lemieux, Julia Garon-Bissonnette, Christine Drouin-Maziade, Élodie Martel, Michel Maziade First published: 25 May 2020

- The Effect of COVID-19 Pandemic and Social Restrictions on Depression Rates and Maternal Attachment in Immediate Postpartum Women: a Preliminary Study

Z. Asli Oskovi-Kaplan1 & Gül Nihal Buyuk1 & A. Seval Ozgu-Erdinc1 & H. Levent Keskin1 & Alper Ozbas1 & Ozlem Moraloglu Tekin1 Accepted: 30 August 2020/ # Springer Science+Business Media, LLC, part of Springer Nature 2020

- **Postpartum depression and associated factors among postpartum women in Ethiopia: a systematic review and meta-analysis, 2020**
- The overall pooled magnitude of postpartum depression was 22.89% with the lowest (12.20%) and highest (33.82%) in the Southern nations region.

- Statistically significant association with postpartum depression:
  - Unplanned pregnancy
  - Domestic violence
  - Lack of social support
  - Previous history of depression
  - Infant loss
  - Dissatisfaction in marriage

- **Mother-to-Infant Bonding in Women with Postpartum Psychosis and Severe Postpartum Depression: A Clinical Cohort Study (2020)**

- Participants completed (PBQ), (EPDS) and (YMRS) weekly during admission.
- At admission, 57.1% of women with PD had impaired bonding, compared to only 17.6% of women with PP.
- At discharge, only 18.2% of women with PD and 5.9% of women with PP still experienced impaired bonding . There was a strong association between decrease of depressive and manic symptoms and improved bonding over an eight-week admission period. In a small group of women (5.7%) impaired bonding persisted despite being in remission of their psychiatric disorder.
- The results from our study show that impaired bonding is a more present and evidently severe problem in postpartum depression but not so much in postpartum psychosis.
- Treatment of depressive symptoms will improve bonding in almost all women, but clinicians should assess if impaired bonding is still present after remission because for a small group special care and treatment focused on bonding might be required.