

Treatment Challenges in Schizophrenia in The Perinatal Period and Infanticide

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Making decisions about the advisability of pregnancy in a woman suffering from schizophrenia is difficult. Antenatal needs, course of illness during pregnancy and postpartum period, risks of untreated illness to mother and fetus, the outcome of pregnancy, and the risks and benefits of antipsychotic medication use during pregnancy and breastfeeding period must all be taken into consideration (1).

Schizophrenia in pregnancy

Although women with schizophrenia may have lower fertility rates than women in the general population, the majority of women with psychotic disorders do have children (2). They have a higher risk of unplanned and unwanted pregnancies and are more likely to be unmarried and to have limited social support (3).

The severity of schizophrenia over the course of pregnancy varies. Although many women experience a decrease in symptoms, some become more delusional and may try to harm the fetus. Pregnancy usually leads to discontinuation of medications motivated by the wish not to expose the fetus to the medications. This could cause either a recurrence or a subsequent exacerbation of symptoms. No medication regimen is considered completely safe during pregnancy, but the risk is often minimal compared to the dangers of untreated illness

with possible complications of suicide and infanticide. The use of conventional antipsychotics during the first trimester increases the risk of congenital abnormalities by additional four cases per thousand (4). Not enough is known about the safety of the atypical antipsychotic drugs, although they are preferred to the conventional ones due to equal efficacy but better tolerability profile.

The course of schizophrenia during pregnancy is not well studied, but pregnancy should be considered as a high risk factor, both for exacerbation of the existing illness and onset of a new episode (3). Women with schizophrenia tend to receive less prenatal care, have poorer nutrition, and use more tobacco, alcohol, and illicit drugs. The offsprings of women with schizophrenia have increased risks of lower APGAR scores, low birth weight, intrauterine growth retardation, preterm delivery, stillbirth, malformation, and infant death (3,5). However, maternal medication use was not assessed in majority of the studies examining the effects of schizophrenia on pregnancy; furthermore, studies evaluating the effects of medication on the fetus generally did not control for the impact of maternal illness.

Postpartum psychosis

The postpartum period is a vulnerable time for the onset of a psychotic episode. Although postpartum

psychosis generally refers to bipolar disorder in the postpartum period, women with schizophrenic illness do relapse in the absence of careful ongoing monitoring. In one study of women with schizophrenia, %16 was hospitalized with a postpartum psychosis within the first six months (6). Therefore, antipsychotic medication should be resumed immediately after childbirth and even a higher dose may be required for the first six weeks. This illness generally requires hospitalization.

Management of schizophrenia in pregnancy

Although fetal medication exposure is a potential risk to pregnancy outcome, maternal mental illness and its risks to the fetus must also be evaluated when treatment during pregnancy is considered. Psychosis itself appears to be particularly harmful to the fetus. Nilsson et al. found a doubling of adverse pregnancy outcomes in women who experienced a psychotic episode during pregnancy. Significantly increased risks for stillbirth, preterm delivery, and low birthweight were found among the offsprings (7). The risks of fetal medication exposure must be weighed against the risks of no treatment. Stopping medication often leads to relapse.

Psychotropic medication exposure risks are generally congenital malformations associated with the first trimester use, neonatal withdrawal at birth, and possible behavioral teratogenesis. However, there are no blinded or randomized studies on birth outcomes in women taking atypical antipsychotics. There are a one prospective study, several case reports and manufacturers' data collections. Both case reports and manufacturers' data may show a reporting bias that could over represent the rate of adverse outcomes. In the prospective study subjects exposed to olanzapine, risperidone, quetiapine, and clozapine showed no statistical differences in the rates of miscarriage, stillbirth, prematurity, congenital malformations, and perinatal syndromes compared to healthy subjects, except one malformation in a baby exposed to olanzapine (8). There was an increased rate of babies with low birth weight and in the mothers, greater body mass index and more elective abortions. In sixty-one prospectively identified cases of fetal exposure to risperidone, there were no congenital malformations and two reports of normal development up to one year postpartum.

Management of schizophrenia in the postpartum period

In the postpartum period, the risk of relapse of schizophrenia is highest in the first 3 months (9). Within the first few days after delivery, levels of estrogen and progesterone fall to their lowest levels. The loss of estrogen's anti-dopaminergic activity may increase the risk of decompensation. A mother's worsening mental state which can cause disruptions in mother-infant interactions, have impact on the child's cognitive and behavioral development (10) and hamper the child's ability to attach, all of which are clearly dangerous for the baby. Decompensation may even cause infanticide. A woman with schizophrenia is more likely to kill her infant when her psychosis worsens as a result of medication discontinuation or due to stressors during the postpartum period and when her psychosis includes the newborn (11). Several case reports have shown that nursing caused a small fraction of the maternal dose of olanzapine, risperidone, and quetiapine reaching offsprings. There are also case reports of infant exposures to risperidone through lactation with no adverse effects (12).

Summary and recommendations

A prepregnancy consultation is highly recommended in women with history of schizophrenia. This should involve the patient's partner, other family members, and also her obstetrician. The psychiatrist should review the patient's history, treatment, and current level of functioning / support. Discussion with regards to the risk-benefit analysis for medication versus the disease should take place. Because of the high risk of relapse and the effects of psychosis on both mother and fetus, many psychiatrists suggest continuation of medications during pregnancy; this should be monitored throughout each trimester and very closely after childbirth. The importance of prenatal care is critical.

Since many women with schizophrenia are using atypical antipsychotics because of greater tolerability, associated risks of obesity, diabetes, and hypertension should be monitored carefully. An individual's past response to treatment informs the choice of medication. In cases with sustained remission, one may decide not to medicate, at least during the first trimester. However,

the patient's past level of psychosis and risk for relapse should also be considered. Medication maintenance may ultimately prevent fetal exposure both to illness and to higher medication doses. Although rare, there is risk for a neonatal syndrome and newborns should be monitored before discharge. One approach is to taper down before delivery to minimize this risk. Such benefit must be weighed against the patient's risk of relapse during the postpartum period. If medication was tapered before delivery, it should be restarted as soon as the baby is born. Furthermore, doses may need to be increased if there is worsening of symptoms/signs during the postpartum period. Postpartum relapse can impair attachment and lead to neglect, custody loss, and cognitive and behavioral sequelae in the offspring and in the worst cases, infanticide. Supportive care is also

important in the postpartum period. Additional social supports may be particularly helpful in preventing relapse. New mothers with schizophrenia need to be assessed frequently for any change in their psychiatric well-being.

The stresses of childcare are overwhelming for women suffering from schizophrenia. Infanticide can be the ultimate tragic consequence of this disease. In preparation for a healthy pregnancy and optimal mothering, women of childbearing age with a severe ongoing illness such as schizophrenia require more than standard psychiatric care. Strategies for prevention and clinical management of postpartum exacerbations include early identification of women at risk, close monitoring throughout pregnancy, prompt recognition of impending psychosis, and aggressive pharmacotherapy.

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