Management of Schizophrenia in Breastfeeding Mothers: A Case Report

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Abstract. The primary age of onset for schizophrenia in women is from 25 to 35 years, which is also a childbearing period in most women. About 50–60% will become pregnant and breastfeed their babies, and 50% of these pregnancies are unplanned or unwanted. Discontinuation of medication during pregnancy or breastfeeding is likely to cause disease recurrence. Studies on the safety of psychotropic drugs during pregnancy and lactation are limited. Therefore, it is necessary to look for recommended treatment based on the existing studies. A 33-year-old woman with a 2-month-old child, was diagnosed with schizophrenia 5 years ago. She regularly took medication before giving birth and the baby was breastfed. Proper medication was administered exclusively for her. The safety profile of antipsychotic medications is not widely understood, and more information is required. Psychological support is strongly required to motivate wom en with schizophrenia to nurse and provide the greatest care for their infants. Antipsychotic drug use in newborns remains a clinical concern. Therefore, data are needed to create evidence-based recommendations.

Keywords: Schizophrenia · breastfeeding · management · antipsychotics

1 Introduction

Schizophrenic patients have the same urge to have children as regular women. However, in the past, they were discouraged to bear children as this topic was often ignored by their doctors. Pregnancy planning is rarely discussed as therapeutic management is fundamental in managing psychotic symptoms. The recommended approach of treatment in the community promotes more interaction with others. Many psychosocial problems that are faced by pregnant and breastfeeding women with schizophrenia need to be addressed by physicians [1, 2].

Second-generation antipsychotics (SGAs) such as clozapine, quetiapine, and aripiprazole are known to not increase prolactin. Olanzapine is less likely to diminish female fertility since they do not elevate prolactin. When switching from one medication to another, doctors should talk to patients about contraception as well as the normalization of their fertility and the potential for an unexpected pregnancy. In the other hand, risperidone is known to cause the pituitary gland to release more prolactin, thus, reducing fertility [1, 3, 4].

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There isn't much information available about the breastfeeding practices of women with psychiatric problems, especially those who are taking antipsychotic medications. Given the well-established nutritional, immunological, somatic, physical, neurodevelopmental, and psychological advantages, the American Academy of Pediatrics (AAP) advised exclusive breastfeeding for the first six months of life. Around 84 percent of babies in the US are breastfed, according to the CDC's 2020 Breastfeeding Report Card. At three months, just 46.9 percent of infants are exclusively breastfed, and at six months, only 25 percent are. Nowadays, the majority of American women choose to start nursing. For those who are receiving treatment for or at risk for mental health illnesses, particularly during nursing periods when there is an increased risk of developing or reoccurring mood disorders, anxiety disorders, and psychotic disorders, choosing most appropriate medication may be challenging. Women with a pre-existing psychiatric diagnosis, such as a schizophrenia, are at risk for relapse. Euthymia is often maintained using a dose of an antipsychotic medication adjusted for their condition while breastfeeding their babies [5, 6].

Very limited information is available concerning the use of antipsychotics in breastfeeding mothers. However, during breastfeeding, babies may be exposed to clinically significant medication doses, although it is unknown how long this exposure may last. This means that the potential advantages and disadvantages of breast-feeding in the context of a collaborative decision-making process should be weighed carefully, and the monitoring of the infant's development and general health by pediatricians and psychiatrists are required [7, 8].

2 Case Report

Mrs. CS, a 33-year-old married woman with a 2-month-old child, complained of re-experiencing auditory hallucinations and delusions of suspicion. This complaint worsened since she stopped taking antipsychotic drugs after giving birth 2 months ago. The patient was diagnosed with schizophrenia 5 years ago and regularly received antipsychotic medication. After giving birth, she did not have time for consultation and stopped taking antipsychotics due to exclusive breastfeeding. About 1 month ago, the schizophrenia symptoms appeared, she began becoming overly suspicious of the husband, hearing whispers, and becoming difficult to sleep. The child's birth history was normal at term, and the child's weight was normal. For a family history of disease, the patient had a schizophrenic uncle who had been diagnosed 5 years earlier. Meanwhile, the history of substance use was denied, and the patient did not have any law-related problems. The economic condition was quite stable because the husband was a successful businessman.

The neurological examination was still within normal limits, and the current consciousness was compos mentis. Patient appeared dysphoric throughout the psychiatric interview, and her affect was inappropriate. Furthermore, there was no disturbances in orientation, memory, abstract thinking, as well judgment. Suspicious delusions and auditory hallucinations were identified.

The patient was given olanzapine 2.5 mg/day, 5 mg/day, and 10 mg/day in weeks 1, 2 and 6, respectively. There were no side effects to the baby or mother's milk, and the family had also been informed about the risks of antipsychotic treatment. However, the family refused to replace exclusive breastfeeding with formula milk (Table 1).

Table 1. Treatment Evaluation

No.	Description	Date			
		Week 1	Week 2	Week 6	Week 10
1	Main complaint	Trouble sleeping, suspicious	Reduced sleeplessness, suspicious↓	Suspicious↓↓	Suspicious (−)
2	General description Appearance	Normal posture; untidy manner of dress; healthy physique	Normal posture; unti- dy manner of dress; healthy OS physique	Normal posture; tidy manner of dress; healthy OS physique	Normal posture; tidy manner of dress; healthy OS physique
	Psychomotor behavior and activity	Normoactive	Normoactive	Normoactive	Normoactive
	Attitude towards examiner	Cooperative	Cooperative	Cooperative	Cooperative
3	Side effects on the baby	Drowsiness (−), irritability (−), tremor (−), and insomnia (−)	Drowsiness (−), irritability (−), tremor (−), and insomnia (−)	Drowsiness (−), irritability (−), tremor (−), and insomnia (−)	Drowsiness (−), irritability (−), tremor (−), and insomnia (−)
4.	Talks	Normal flow, normal tone of voice, sufficient productivity, sufficient treasury	Normal flow, normal tone of voice, sufficient productivity, sufficient treasury	Normal flow, normal tone of voice, sufficient productivity, sufficient treasury	Normal flow, normal tone of voice, sufficient productivity, sufficient treasury
5.	Affect Mood	Inappropriate Dysphoric	Inappropriate Dysphoric	Appropriate Eutymic	Appropriate Eutymic
6.	Thought -Thought disorder	Interrupted RTA Psychosis (+)	Interrupted RTA Psychosis (+)	Interrupted RTA Psychosis (+)	Interrupted RTA Psychosis (+)
	-Specific disorder of thought content	Persecutory delusions(+) Reference delusions (+)	Decreased persecutory delusions (+) Decreased reference delusions (+)	Persecutory delusions (−) Decreased reference delusions (+)	Reference delusions (−)
7.	Perception	Auditory hallucinations (+)	Auditory hallucinations (+)	Auditory hallucinations (+)↓	Auditory hallucinations (+), reduced frequency
8	Dreams and Fanta sy	Not found	Not found	Not found	Not found
9.	Sensorium Alertness	Compos Mentis	Compos Mentis	Compos Mentis	Compos Mentis
	Orientation				
	-Time -Place Personal	Good Good Good	Good Good Good	Good Good Good	Good Good Good

(*continued*)

Table 1. (*continued*)

No.	Description	Date			
		Week 1	Week 2	Week 6	Week 10
	Concentra-	Disturbed	Disturbed	Disturbed	Good
	-Remote memory	Good	Good	Good	Good
	-Long	Good	Good	Good	Good
	-Recent	Good	Good	Good	Good
	-Immediate memory	Disturbed	Disturbed	Disturbed	Good
	General knowledge	Good	Good	Good	Good
	Abstract Thoughts	Disturbed	Disturbed	Good	Good
10.	Insight	Degree I	Degree II	Degree IV	Degree IV
	Judgement				
11.	- Social	Disturbed	Disturbed	Good	Good
	- Test	Good	Good	Good	Good
12.	Impulse Control	Disturbed	Good	Good	Good
	Diagnosis -Axis I -Axis II -Axis III -Axis IV -Axis Vss	Paranoid Schizophrenia No Diagnosis Schizoid personality traits Delayed Problems of divorce with husband GAF scale 40–31	Paranoid Schizophrenia No Diagnosis Schizoid personality traits Delayed Problems of divorce with husband GAF scale 40–31	Paranoid Schizophrenia No Diagnosis Schizoid personality traits Delayed Problems of divorce with husband GAF scale 50-41	Paranoid Schizophrenia No Diagnosis Schizoid personality traits Delayed Problems of divorce with husband GAF scale 60–51
13.	PANSS score	Total Score: 96 P scale : 27 N scale : 27 G scale : 42	Total Score: 79 P scale: 21 N scale:	Total Score: 54 P scale: 15 N scale:	Total Score: 46 P scale: 12 N scale:
14.	Management	Olanzapine 1 × 2.5 mg/orally/day, evening administration	Olanzapine 1 × 5 mg/orally/day, evening administration	Olanzapine 1 × 10 mg/orally/day, evening administration	Olanzapine 1 × 10 mg/orally/day, evening administration

Before taking the antipsychotic drug, it is recommended to undertake a breast pumping session in the afternoon.

3 Discussion

Compared to any other time in a woman's life, the postpartum period—which also happens to be the time when breastfeeding occurs—has a higher frequency of psychotic disorders. As a result, information on the safety of antipsychotic use is crucial. According to

lactation studies that consistently reported these medications' safety, the first-generation antipsychotic agent phenothiazines appeared to be safe. Ten papers in total, involving 28 infants who were given antipsychotic drugs through breast milk, generally reported no negative effects. In order to treat Tourette's syndrome and schizophrenia, haloperidol is frequently utilized. According to reports, a small proportion is absorbed into breast milk. Recent findings have shown that newer atypical antipsychotics might be a better option for nursing women, however there is currently insufficient knowledge regarding these medications. For instance, low amounts of aripiprazole are excreted in breast milk, with levels peaking and stabilizing between 3 and 12 h after the mother takes the medication. Aripiprazole, however, may lower prolactin levels and lessen milk production, according to current research. In comparison to olanzapine, risperidone levels were likewise fairly low, and no sedation in breastfeeding infants was noted. Contrarily, clozapine reaches quite high amounts in the serum of infants and breast milk. Clozapine is normally prohibited during breastfeeding due to reports of agranulocytosis and drowsiness in breastfed newborns [2].

According to recommendations from the National Institute for Care and Health Excellence (NICE), women with schizophrenia are currently encouraged to breastfeed unless they take clozapine, despite the fact that breastfeeding offers obvious advantages for immunity and bonding. Even though all antipsychotics are excreted in breast milk, the amount of active component that is transferred to the newborn is little. A systematic evaluation of 49 research revealed that amisulpride had the highest penetration ratio, followed by clozapine and haloperidol. According to anecdotal data, clozapine has noticeable amounts in breast milk, a risk of agranulocytosis, and a small chance of speech development delays. Positive safety results for olanzapine are the most reliable, according to the most recent research. Other popular antipsychotics are rarely linked to adverse effects, although due to the scant data, monitoring of neuro-development and motor abnormalities is necessary. It might be challenging to choose the optimal feeding technique and antipsychotic at the same time; this choice should be made in conjunction with the family and the pediatrician [3, 9].

This is in line with The American Psychiatric Association's (APA) Practice Guideline for the management of schizophrenia patients, which notes that there is still very little knowledge about breastfeeding. However, the long-term effects of such exposure to drugs are unknown and infants may be exposed to clinically substantial drug levels in breast milk. When making a decision to breastfeed, mothers should weigh the potential advantages and disadvantages, and consult with their baby's pediatrician to monitor the baby's growth and development [7] The safety of antipsychotic medications during breastfeeding is also largely unknown, and more information is required on this crucial topic, according to the Royal Australian and New Zealand College of Psychiatrists' (RANZCP) clinical practice guidelines for managing schizophrenia and related disorders. With new mothers, the majority of doctors discuss breastfeeding concerns. The desire of a new mother to breastfeed and give her child the best start possible is a powerful drive. Antipsychotic drug use in newborns, however, is a clinical issue that calls for data in order to make evidence-based recommendations [1].

Babies have little benefit from exposure to drugs through breast milk. There are several methods that enable mothers to continue breastfeeding while taking specific drugs, such as:

1. For 4 to 6 h after drug use, refrain from nursing in order to prevent peak drug concentrations through pumping and exhaling;
2. When the risk or dosage of the medicine is particularly high, the use of formula and breast milk together; and
3. Returning to breastfeeding after discontinuing the medicine and pumping and releasing milk during therapy.

Some medications cause elevated concentrations to appear in breast milk, while others cause considerably lower levels. Changing to alternative medicine with a better safety profile is another tactic. Each case should be evaluated taking into account the significance of the treatment, the timing of therapy, the medication choice, the mode of action, drug tolerance, the overall toxicity, and the significance of continuing breastfeeding the infant [2].

No adverse effects on the infant or decrease in breast milk were seen when olanzapine was administered up to 10 mg. Some studies stated that babies receiving olanzapine 10 mg/day orally have serum levels of about one-third of their mothers. They were breastfed and had undetectable serum levels (<2 μcg/L) at 2 and 6 weeks of age. The babies were breastfed for 2 months provided the mother took olanzapine 10 mg/day. During the 11-month follow-up period, no anomalies in growth and development were discovered.10 Babies were advised to be breastfed before and after taking the drug, and pumps were recommended to avoid peak concentrations of the antipsychotic drug. The concentrations reached 6–8 h after drug consumption.

Therefore, When the medication content in breast milk is lowest before or after taking the drug, breastfeeding may be restricted [11].

4 Conclusion

The safety profile of antipsychotic medications is not widely understood, and more information is required. Psychological support is strongly required to motivate women with schizophrenia to nurse and provide the greatest care for their infants, antipsychotic drug use in newborns remains a clinical concern. Therefore, data are needed to create evidence-based recommendations.

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