

Cross-sectional Study of Menstrual Irregularities in Patients Receiving Antipsychotic Medications

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Abstract

background: A significant percentage of women taking antipsychotic medication may be suffering from menstrual irregularities during their treatment.

Aims: This study was aimed at studying the relationship between the use of antipsychotic medication and type frequency of menstrual irregularities in women of reproductive age group.

Setting: Psychiatric outpatient department (OPD) in general hospital.

Materials and Methods: The study of women of reproductive age group on neuroleptic medications attending the psychiatric OPD was questioned about the menstrual pattern, duration of treatment along with diagnosis, current medications, and age.

Results: A total of 96 patients were enrolled in the study after taking informed consent. 48.95% patients showed menstrual irregularities. Among those patients who had menstrual irregularities, 35% had amenorrhea, and 65% suffered from oligomenorrhea. Among the medications, equal frequency was seen between atypical and typical antipsychotic medications.

Conclusion: A substantial proportion of the patients on antipsychotic medications suffers from menstrual irregularities. The patients, hence, need to be explained about these side effects and the psychiatrist should actively lookout for these symptoms as the majority are not reported. It is believed that typical antipsychotics have more side effects compared to atypicals, but when it came to menstrual irregularities, we found equal prevalence between the two groups.

Key words: Amenorrhea, Antipsychotics, Menstruation, Neuroleptics

INTRODUCTION

Menstrual irregularities are among the most neglected of the side effects in the patients receiving antipsychotics medications.^[1] Relative frequency of the patients reporting these irregularities varies from 18% to 75%.^[1] Majority of the studies are carried in western population, and hence, data pertaining to the Indian population

largely remains obscure. The significance of studying menstrual irregularities lies in the fact that it serves as a marker for serum prolactin and elevated prolactin levels are associated with adverse effects on multiple systems in the body, namely menstrual irregularities in women,^[2,3] galactorrhea,^[2,4] sexual dysfunction,^[5] and osteoporosis.^[6,7,8]

Aims and Objectives

The objectives of this study are as follows:

1. To study the prevalence of menstrual irregularities in women of reproductive age group receiving antipsychotic medications.
2. To compare the relative frequency of menstrual irregularities in patients receiving typical and atypical antipsychotics.

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MATERIALS AND METHODS

Inclusion Criterion

The following criteria are included in the study:

1. All the patients willing to participate in the study and giving informed consent.
2. All the women in reproductive age group (15–45 years) receiving antipsychotics for at least 2-month duration.
3. All patients receiving single antipsychotic drug (monotherapy).

Exclusion Criterion

The following criteria are excluded from the study:

1. All patients unable to give information due to underlying psychiatric illness or any other reason.
2. All patients suffering from medical or neurological condition likely to affect menstruation.
3. Patients on multiple or on combination of antipsychotic drugs.

Procedure

Each patient in the current sample when came to psychiatric outpatient department was interviewed with set of questions regarding details of menstrual pattern, antipsychotic medications currently taking, total duration of treatment, and diagnosis. Amenorrhea was defined as the absence of menstruation for 6 consecutive months, and oligomenorrhea was defined as menstrual cycle lasting for more than 35 days.

Statistical Analysis

All the collected data were tabulated and analyzed using appropriate statistical methods.

RESULTS

All 96 patients who followed within 12 months were enrolled in the study. The mean age of the patients was 32.14 years (range 17–46). Total 47 (48.95% ± 5% absolute precision) of 96 patients showed menstrual irregularities. Among those patients who had menstrual irregularities, 16 (34.04%) had amenorrhea, which was defined as the absence of menstruation for a consecutive period of 6 months and 31 (65.95%) suffered from oligomenorrhea, which was defined as menstrual cycle lasting for more than 35 days. Majority of the patients had the diagnosis of schizophrenia 63 (65.62%), while 15 (15.62%) had bipolar mood disorder and 18 (18.75%) had diagnosis of other psychiatric disorders.

Table 1 summarizes all the patients receiving single medication from all age groups and shows that maximum patients were from 25 to 35 age group.^[9]

Table 2 summarizes all the patients who are distributed according to disease. Patients receiving single medication show that maximum patients were from schizophrenia but with equal frequencies of oligomenorrhea and amenorrhea. The frequency of oligomenorrhea was 67.7% and 70% for schizophrenia and bipolar mood disorder, respectively.^[9] Similarly, the relative frequency of amenorrhea was 32.2% and 30% for schizophrenia and bipolar mood disorder, respectively.^[9]

Table 3 summarizes the patients who were exclusively on the first-generation antipsychotics and the second-generation antipsychotics. The frequency of oligomenorrhea was 66.6% and 33.3% for the first-generation and second-generation antipsychotics, respectively.^[9] Similarly, the relative frequency of amenorrhea was 64.3% and 35.71% for the first-generation and second-generation antipsychotics, respectively.^[9]

DISCUSSION

In the available literature, around 30–40% of the patients suffer from menstrual irregularities when receiving antipsychotics medications.^[10] Results found in our study are in congruence with the previous studies in this respect. Among menstrual irregularities, oligomenorrhea was found to be more common than amenorrhea.

Contrary to popular belief that typical antipsychotics have greater propensity to cause menstrual side effects compared to atypical antipsychotics,^[11] we found equal incidence between the two groups. Although clozapine is considered to have less side effects in terms of menstrual disturbances.^[12] Menstrual irregularities are secondary to raised prolactin levels and as measuring serum prolactin is

Table 1: Age wise distribution

Age	n (%)			
	Total	Oligomenorrhea	Amenorrhea	Normal
Up to 25 years	29 (30.2)	09 (64.28)	5 (35.71)	15 (51.72)
25–35 years	34 (35.45)	10 (62.5)	6 (37.5)	18 (52.94)
35–45 years	33 (34.3)	10 (62.5)	6 (37.5)	17 (51.51)

Table 2: Disease wise distribution

Disease	n (%)			
	Total	Oligomenorrhea	Amenorrhea	Normal
Schizophrenia	64 (66.66)	21 (67.74)	10 (32.25)	33 (51.56)
Bipolar mood disorder	21 (21.87)	7 (70)	3 (30)	11 (52.38)

Table 3: Type wise distribution

Type of neuroleptics	n (%)			
	Total	Normal menstruation	Oligomenorrhea	Amenorrhea
First-generation antipsychotics	39 (40.62)	21 (53.84)	12 (66.66)	6 (33.33)
Second-generation antipsychotics	57 (59.37)	29 (50.87)	18 (64.28)	10 (35.71)

expensive, menstrual irregularities are gateway for raised prolactin.

The intervention which could be tried includes decreasing the dose of the antipsychotic, switching to another medication with less effect on prolactin, or using a dopamine agonist, for example, bromocriptine or amantadine.^[13,9]

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