

Case Report

Delusion of Pregnancy in a Patient Treated with Atypical Antipsychotics

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ABSTRACT

Delusion of Pregnancy (DP) is defined as the belief of being pregnant despite factual evidence to the contrary. Both pseudocyesis and delusional pregnancy are said to be common in developing countries but available evidence is scanty. A distinction has been made between the two syndromes, but the line of demarcation is blurred. Delusion of Pregnancy (DP) can occur as a primary psychiatric disorder or as a part of other medical disorders. Antipsychotic induce hyperprolactinemia & metabolic syndrome can contribute or act as a maintaining factor in patients with DP.

Key words: Delusion of Pregnancy, Anti-psychotic induced, Heterogenous symptom

INTRODUCTION

False pregnancy or delusional pregnancy is the condition of believing one is pregnant despite factual evidence to the contrary. ⁽¹⁾ Delusion of pregnancy (DP) is an aetiologically heterogeneous phenomenon. Both biological and psychological factors have been implicated in the causation of this symptom. ⁽²⁾ According to Conrad, the birth & development of the delusion occurs in several stages. The first stage, “das trema” is a general feeling of non-specific apprehension. This can be a result of familial and societal pressures or personal aspirations to become pregnant despite obstacles such as infertility, old age, spinsterhood, ill health, poor marital relationship, or inadequate socioeconomic conditions. The general apprehension during this first stage may follow the loss of a child, or loss of status, or loss of a love relationship. The second stage of delusion formation is a sensory perception, such as weight gain, or vaginal spotting, or abdominal movement, or frequency of

urination. The same sensory perception may have occurred many times before but, this time around, as the person searches for what it might mean, it suddenly acquires extraordinary significance. This is the third stage, where meaning is attached to an otherwise neutral sensation. How a person then deals with this momentous information depends on personal factors (health, education, reasoning ability, cognitive biases) and on situational factors (family, socioeconomics, culture, religion). ^(3,3)

The symptom can present as a part of another disorder or can present in isolation. When present independently, Delusion of Pregnancy is described as somatic type of delusional disorder according to Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), within the realms of schizophrenia spectrum and other psychotic disorders. ⁽⁵⁾ It should be distinguished from four additional conditions imitating pregnancy:

1. Pseudocyesis: Development of the classic symptoms of pregnancy - amenorrhea,

nausea, breast enlargement and pigmentation, abdominal distension, and labour pains-occurs in a nonpregnant woman.

2. Pseudopregnancy: A somatic state resembling pregnancy. It is triggered by organic factors (e.g. physical symptoms caused by endocrine tumours).

3. Simulated pregnancy: When a woman admits to be pregnant, although she is aware that she is not. ⁽⁶⁾

4. Couvade syndrome: Where the father develops a variety of somatic symptoms before, during, or after the birth of the child. His behaviour can resemble that of pregnant women although he knows that he is not pregnant. ^(7,8)

Manjunatha *et al*, described Delusional Procreation Syndrome (DPS) that consists of sequential delusions in every possible stage of procreation such as having spouse/partner, getting pregnant, having delivered a child (labour and childbirth), becoming parents/grand-parents and so on. ⁽⁹⁾

The most common diagnoses in patients with Delusion of pregnancy include schizophrenia (35.7%), bipolar disorders (16.7%) and depression (9.5%). ⁽¹⁰⁾ Biologically DP has been described in schizophrenia, schizoaffective disorder, delusional disorder, mental retardation, senile dementia, psychotic depression, hyperprolactinemia, drug-induced lactation, postpartum thyroiditis, metabolic syndrome, polydipsia, FTLT/MND. ⁽⁸⁾

Delusion of Pregnancy is said to be more common in a developing country, the literature about delusion of pregnancy from India is meager. ⁽⁸⁾ We hereby present a case of DP which occurred during the remission phase & on maintenance therapy, perpetuated by multiple factors.

CASE ILLUSTRATION

A 31 year old female, educated up to 5th Standard, married for 13months presented to the Psychiatry Out-patient Department on 24th June, 2019, with a history of suspiciousness & demanding

family members to search for her lost child since 10months. On detailed evaluation, history taking & reviewing her past records, we found that, the patient was diagnosed to have Paranoid schizophrenia (in view of 3rd person auditory hallucinations, delusion of persecution & reference) & was on treatment with risperidone & olanzapine for the same since the past 7 years (2012). Patient had attained complete remission, 2years back (2017) & the dosage of olanzapine was tapered (5mg) & risperidone 8mg was continued. During this period, patient was functioning adequately & got married (March 2018). However, patient had menstrual irregularities & weight gain on treatment. Post-wedding, drug compliance was questionable, though patient claimed to be adherent to treatment. She also had the pressure to conceive soon after her marriage (owing to her late age of marriage).

General Physical & Systemic examination were within normal limits (Per abdomen had no evidence of striae). Investigations including neuroimaging, electrocardiogram, haemogram, renal, liver, thyroid, lipid & sugar profile were normal. Serum prolactin was also normal. Her menstrual cycles were regular.

We admitted the patient for detailed evaluation & management. Patient & her family members were interviewed. On probing for further details, we found that, one month after her wedding (May 2018), patient reported to her husband that she was already five months pregnant. She disclosed to him that 5months back, 2 strangers entered her house during the night & she was unable to remember the events that occurred there by, as she was drowsy because of the medications. She also reported of amenorrhoea for a period of 7 months & nausea and vomiting, which was present throughout the pregnancy, but reduced after the third month. In addition to this, patient claimed she gained 5-6kgs of weight & her abdominal girth was increasing. She also apprised her in-laws that she could feel the foetus move around

in her abdomen since the 5th month. She started coercing her husband to take her to the hospital for her antenatal check-up. Patient was seen by a obstetrician, who conducted a physical examination & advised urine pregnancy test (UPT), both of which were negative for pregnancy. Hence, she was advised an Obstetric scan, which was normal & there was no evidence of a gestational sac/foetal pole. In spite of evidence contrary to her claims, patient continued to strongly believe that she was pregnant. She complained of feeling lethargic, attributing it to her pregnant state. She refused to perform most of her household chores. In July 2018, patient also complained of pain & engorgement in her breasts & claiming that she has started producing breast milk which she would express twice daily. She stopped the prescribed medications, claiming it to be harmful to the foetus. In August 2018, in view of her persistent belief that she was pregnant, she was taken to her treating psychiatrist. Repeat UPT was negative but Serum prolactin was found to be high. Patient was started on aripiprazole, a prolactin -sparing drug. She also complained of severe back pain, which increased in intensity & declared she is in labour. Ultrasound abdomen & pelvis showed? Pelvic Inflammatory disease (PID) & was treated symptomatically in a local hospital. However, soon after the cessation of treatment, patient recounted that she lost her consciousness due to the excruciating pain & during that period, she delivered a baby boy. She would claim that the baby went missing immediately after birth and she didn't have the chance to even see the baby. She would assert that her persecutors have taken away the child & started demanding family members to go in search of the child. When family members & the hospital staff tried to convince her that her belief & assertion were untrue, patient would be irritable. However, patient continued the prescribed medications, but no improvement was seen & hence referred to our tertiary care centre.

During the interview, patient held on to this belief & when tried to reason, claimed that she had amenorrhea for >9months, weight gain & abdominal enlargement, when on treatment. These were the signs of pregnancy. She would also point on to a particular spot on her ultrasound report, claiming it to be her foetus & another scan done later without the spot, indicative of delivery. Patient was started on olanzapine & was noticed to improve gradually both clinically as well as on the PANSS score.

DISCUSSION

This is the first case report in which a patient in remission for >1year & on maintenance treatment developed a Delusion of Pregnancy. Patient misinterpreted the side effect profile of the medication as a sign of pregnancy. However, it could also be the part of the primary disorder itself, suggestive of relapse. Treatment with Aripiprazole, a prolactin sparing drug was also found to be ineffective. This is in contrast with another study which showed that patients who had erroneous ideas of being pregnant (four delusional and two non-delusional) temporally associated with hyperprolactinemia, resolved as prolactin levels returned to normal. ⁽¹³⁾ In our case, the delusion was precipitated by the side effect profile of the drug & non-compliance on treatment, possible Pelvic inflammatory disease & pressure to conceive served as perpetuating factors.

In women suffering from psychosis, delusional pregnancy is not uncommon, especially since the advent of antipsychotic medications, which, by virtue of inhibiting dopamine secretion, raise prolactin levels to produce amenorrhea, breast swelling/tenderness, and galactorrhea-akin to the somatic experience of pregnancy. ⁽¹¹⁾ Moreover, antipsychotic drugs are associated with considerable weight gain, distending the abdomen and adding to a misperception of pregnancy. Even when there has been no prior sexual activity,

fantasy-prone women can find ways of convincing themselves that they are pregnant. They imagine the implantation occurring by magic or through the wizardry of advanced reproductive technology. Distinction has been drawn between pseudocyesis, where signs of pregnancy are demonstrably present (abdominal swelling, menstrual disturbance, spotting, the report of quickening, breast tenderness and engorgement, weight gain, galactorrhea) and delusions of pregnancy, where there may be cessation of menstrual periods and abdominal distension, but no other outward signs. ⁽¹²⁾ The first is said to be a somatoform disorder while the second is a symptom of psychosis. Delusions of pregnancy have been noticed to disappear soon after a change to a relatively prolactin-sparing antipsychotic. ⁽¹³⁾

The psychological antecedents such as ambivalence about pregnancy, relationship issues, and loss are very frequently associated with pseudocyesis/delusional pregnancy, especially in a married couple who are infertile and living in a pronatalist society. The infertility causes substantial distress and discrimination. When antipsychotic medication were used to treat psychotic symptoms in these women, it led to high prolactin levels and apparent manifestations of pregnancy, such as amenorrhea and galactorrhea, thus reinforcing a false conviction of pregnancy. ⁽¹⁰⁾

Though delusion of pregnancy can be primary, it can appear in the context of medical conditions that cause abdominal distension such as fibroids, urinary retention, polydipsia, metabolic syndrome, tubal cyst or abdominal pain such as cholecystitis. ^(11,14-18)

CONCLUSION

The case highlights that delusion of pregnancy can emerge during the remission phase of the psychotic illness. Use of non-prolactin sparing antipsychotics (especially risperidone) can significantly contribute in its germination as well as act as a

maintaining factor. It is a heterogeneous symptom with social, psychological and biological determinants to its genesis. Detailed evaluation & exclusion of the other differential diagnoses is imperative. The treatment response can be considered good in about half of the patients, and pharmacology remains the mainstay of treatment.

Declaration of Patient Consent

The authors certify that they have obtained all required patient consent forms. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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