Pseudocyesis is rare but it is a concern in remote areas based on sociocultural factors: A case report

Faiz Kassim¹, Meskerem Abebe¹, Muluken Wassihun¹, and Surafel Worku Megersa¹
¹St Paul's Hospital Millennium Medical College

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Pseudocyesis is rare but it is a concern in remote areas based on sociocultural factors:

A short review with a case report

Faiz Mohammed Kassim (Ph.D, Psychopharmacologist)-Faiz.mohammed@sphmmc.edu.et

Muluken Tesfaye Wasihun (MD, Assistant professor of psychiatry)- Mulathea18@gmail.com/

Meskerem Abebe Jimma (MD, Assistant professor of psychiatry)- Meskiahadu@gmail.com /

Surafel Worku Megersa * (Corresponding author) (MD, Assistant professor of psychiatry)- Surilanka1@gmail.com / Surafel.worku@sphmmc.edu.et

Affiliations:

Department of Psychiatry, St. Paul's Hospital Millennium Medical College

Swaziland Street, Gulele Sub-City P.O. Box 1271, Addis Ababa, Ethiopia

Abstract

False pregnancy, or pseudocyesis, is a rare "psychoneuroendocrine" condition in which a non-pregnant has a strong conviction of being pregnant. In the absence of a fetus, the patient illustrates several objective signs and symptoms of conception that resemble true pregnancy. Little is known about the psychopathology of pseudocyesis but the complex interactions of psychological, sociocultural and endocrine factors may play crucial roles. Although there are some studies or reports in Africa, pseudocyesis is neglected or rarely reported in Ethiopia and other developing countries. Here, we narrate the literature of pseudocyesis by a presenting a case of a 40-years-old woman with pseudocyesis in the setting of major depressive disorder. Overall, the condition needs a collaborative approach of gynaecologists and psychiatrists in the diagnosis and management of pseudocyesis.

Context

A fantasy of pregnancy manifested as pseudocyesis is one of the earliest medical conditions recorded in history, dating back to the time of Hippocrates. Pseudocyesis or false pregnancy is "a false belief of being pregnant that is associated with objective signs and reported symptoms of pregnancy" (1). To describe the psychopathology, additional terminologies such as pseudopregnancy, false pregnancy, imaginary pregnancy, simulated pregnancy, spurious pregnancy, or phantom pregnancy has been used interchangeably (2, 3). Symptoms that most frequently observed during pseudocyesis include amenorrhea, morning sickness, abdominal distention, feeling of fetal movement, enlargement of the breasts, areolar pigmentation, secretion of milk, softening of the cervix, lordotic posture on walking or weight gain (2, 4).

The prevalence of pseudocyesis has decreased during the last 70 or 80 years, probably due to a number of sociocultural, family and medical factor s (5). It is expected that pseudocyesis is found more commonly in developing countries because of less medical facilities and psychosocial factors (3, 6, 7). However, the case is rarely studied or reported in Africa (8-13) and other developing countries or remote areas. Pseudocyesis is also neglected in Ethiopia. The following pseudocyesis case in a 40-years-old woman with major depressive disorder (MDD) helps to discuss the topic.

Issue

An elementary school dropout a 40-year-old housewife, who leaves at a rural part of Adama town, in Ethiopia presented to psychiatric out-patient clinic with a main compliant of abdominal distension for 4 years. She is also a Para v abortion II lady. She gave birth to five children but two of them died. She was orthodox Christian but converted to Islam after her marriage. Prior to her current presentation, she was diagnosed with MDD and was on follow up for five months. She was taking sertraline 100 mg/day and was showing mild progress. Currently, she reported absence of menses and she is occasionally experiencing nausea and vomiting, mostly occurring in the morning. The two symptoms were accompanied by abdominal swelling that was initially small in size, and then progressively increased to attain its current size. She also reported that she has significant weight gain. After five months of the onset of the symptoms, she began to feel 'fetal kick' on a daily basis.

She visited more than 18 healthcare facilities to check her pregnancy status. Although all of her tests were negative and she was consistently informed that she is not pregnant, she was not convinced. Then, she visited a traditional birth attendant who described the condition as "ya'athenete leje" (in local language, literally it means "the baby of a bone"). "The baby of a bone" is a cultural explanation for a pregnant women having vaginal bleeding during multiple occasions, but it was believed that she subsequently could give birth over the duration longer than expected for other pregnancies. Hence the society gives explanation that the baby is has no blood and is only made of bones.

She expressed that her father cursed her because of her conversion to Islam. She believes that the curse resulted in the death of her first and second-born around their age of six-months-old. She also had two induced-abortions five and seven years ago for a reason of unplanned pregnancy. Currently, the remaining three children are alive.

On mental state exam, she had dysphoric, constricted affect. She was preoccupaied with the idea of being pregnant and had no perceptual disturbance. Pertinent physical findings include that she looks older than her stated age. She had symmetrically enlarged breasts, and her abdomen was grossly distended and moves with respiration. She had a lordotic posture. There is moderate abdominal tenderness over the right lower quadrant and had no palpable mass. There was normoactive bowel sound with no appreciable fetal heartbeat, had soft to firm consistency, and no shifting dullness or fluid thrill.

Investigation results of complete blood count, renal, liver and thyroid function fasting serum glucose and lipid profile tests were in the normal range. Urine and serum HCG were negative, but serum follicle stimulating hormone (FSH), was three times elevated than the normal lab range. In addition, abdominal ultrasound was unremarkable and did not show presence of fetus.

Olanzapine (5 mg day, then 10 mg/day) was added to sertraline. She took the olanzapine for four months. Supportive psychotherapy was initiated but the patient was lost to follow-up for unexplained reason.

Lessons learned

The present case demonstrated pseudocyesis in adult female with MDD. Studies suggested that most female with pseudocyesis might have mild to moderate affective disorders, including MDD (3, 5, 14). It has been suggested that depression plays important role in the aetiology of pseudocyesis (4), which might explain the present case. To the best of our knowledge, this is the first case report of pseudocyesis in Ethiopia.

In consistent with previous reports, the current patient had amenorrhea, nausea and vomiting, abdominal

distention, enlargement of the breasts, areolar pigmentation, lordotic posture on walking, and weight gain (2, 4). However, urine and serum HCG were negative, and abdominal ultrasound did not show presence of fetus, which confirmed our pseudocyesis diagnosis. As all or most patients would have the difficulty of accepting the objective laboratory results/reality (7), our current patient was visiting dozens of clinics wishing to hear the news that "she is pregnant!." We helped the patient to recognize the condition and we psychoeducated her, although she was lost to follow up after a few months.

Our patient was a 40 years old woman with galactorrhea. However, a diagnosis of pseudocyesis without galactorrhea may be common in older than younger woman (15). It has been reported that pseudocyesis commonly occur in females who are in the reproductive age group between 20 and 44 (16), mainly the late 30s. However, there are some reports that the problem was observed in female teenagers (15, 17-21) and, surprisingly in a pre-teen (22) and six years old girls (14, 23). The case was also observed in a in males (24-27), though most of the cases in male would not be categorized under pseudocyesis based on the latest standards (5). It looks the current patient has psychological and/or sociocultural factors that she has a strong conviction with the "curse" of her father that persistently stressed her. Her low level of education and unemployment could also play a role.

Moreover, low socioeconomic status and poor or absence of family support are important factors for pseudocyesis (28). Pseudocyesis commonly occurs in women who have threat of menopause or who want to preserve their esteem in front of their husband or his families (6), those who had abortion history, who have lost one or more children, or who excessively fear that they may lose their children in the future (5, 16, 29). More or less, these factors use to explain the psychological understanding of our patient.

Although little is known about the pathophysiology of pseudocyesis, the complex interactions of psychological, sociocultural and endocrine factors may play crucial roles (4-7, 16, 17). The psychological and/ or social factors may impact the hypothalamic-pituitary-ovarian axis. It has been suggested that endocrine traits may be a linking pathway between pseudocyesis pathophysiology and MDD (3), the excess desire for pregnancy or stress may stimulate the release of pituitary hormones, gonadotropin-releasing hormone (GnRH) (29). The increased level of FSH in the present patient or other patients might be because of reduced steroid-dependent negative feedback mechanisms on GnRH (3, 4). Importantly, dysregulation of monoaminergic pathway in the central nerves system causing deficit in dopamine and noradrenaline, and increased autonomic activities because of noradrenaline turnover may play key role (see 3 for review). The present review paper shows that pseudocyesis is a rare psychiatric condition, and it is often associated with affective disorder. The presented case of a woman with pseudocyesis, with comorbid depressive disorder also indicates that pseudocyesis is not uncommon. We suggest a collaborative approach of Obstetrics/gynecologists and psychiatrists in the diagnosis and management of pseudocyesis with or without other comorbid disorders.

Keywords: Pseudocyesis, False pregnancy, Depression, Abdominal distention, Ethiopia

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References

- 1. APA. Diagnostic and Statistical Manual of Mental Disorders, Text Revision. Fifth ed. Washington, DC.: American Psychiatric Association; 2022.
- 2. Drife JO. Phantom pregnancy. Br Med J (Clin Res Ed). 1985;291(6497):687-8.

- 3. Tarín JJ, Hermenegildo C, García-Pérez MA, Cano A. Endocrinology and physiology of pseudocyesis. Reprod Biol Endocrinol. 2013;11:39.
- 4. Brown E, Barglow P. Pseudocyesis. A paradigm for psychophysiological interactions. Arch Gen Psychiatry. 1971;24(3):221-9.
- 5. Whelan CI, Stewart DE. Pseudocyesis—A Review and Report of Six Cases. The International Journal of Psychiatry in Medicine. 1990;20(1):97-108.
- 6. Ibekwe PC, Achor JU. Psychosocial and cultural aspects of pseudocyesis. Indian J Psychiatry. 2008;50(2):112-6.
- 7. Seeman MV. Pseudocyesis, delusional pregnancy, and psychosis: The birth of a delusion. World J Clin Cases. 2014;2(8):338-44.
- 8. Ouj U. Pseudocyesis in a rural southeast Nigerian community. Journal of Obstetrics and Gynaecology Research. 2009;35(4):660-5.
- 9. Dafallah SE. Pseudocyesis and infertility. Saudi Med J. 2004;25(7):964-5.
- 10. Ndosi NK, Lema RS. Phantom pregnancy at Muhimbili. East Afr Med J. 1992;69(9):539-41.
- 11. Bolakale AS, Ibrahim A, Amusa A. Pseudocyesis Vera in a Health Institution, North Western Nigeria. J Public Health Afr. 2015;6(2):532.
- 12. Murewanhema G, Ziruma A, Nyakanda M, Madziyire M. Hope or desperation? A pseudocyesis in advanced maternal age in a woman with recurrent miscarriages: a case report and literature review. PAMJ Clinical Medicine. 2021;6(18).
- 13. Abrache M, Ennazk S, Adali I, Manoudi F. Pseudocyesis and a Maternity Delirium: A Case Report. Scholars Journal of Medical Case Reports. 2021;9(3):234-5.
- 14. Brooks JG. Pseudocyesis in a 6-Year-Old Girl: Follow-up Report at 23. Journal of the American Academy of Child Psychiatry. 1985;24(3):359-62.
- 15. Osotimehin BO, Ladipo OA, Adejuwon CA, Otolorin EO. Pituitary and placental hormone levels in pseudocyesis. Int J Gynaecol Obstet. 1981;19(5):399-402.
- 16. Azizi M, Elyasi F. Biopsychosocial view to pseudocyesis: A narrative review. Int J Reprod Biomed. 2017;15(9):535-42.
- 17. Del Pizzo J, Posey-Bahar L, Jimenez R. Pseudocyesis in a teenager with bipolar disorder. Clin Pediatr (Phila). 2011;50(2):169-71.
- 18. Ayakannu T, Wordsworth S, Smith R, Raghunandan R, Vine S. Pseudocyesis in a teenager using long-term contraception. Journal of Obstetrics and Gynaecology. 2007;27(3):322-3.
- 19. Rosenberg HK, Coleman BG, Croop J, Granowetter L, Evans AE. Pseudocyesis in an Adolescent Patient: Case Report and Radiologic Analysis. Clinical Pediatrics. 1983;22(10):708-12.
- 20. Silber TJ, Abdalla W. Pseudocyesis in adolescent females. Journal of Adolescent Health Care. 1983;4(2):109-12.
- 21. Škrabić V, Vlastelica Ž, Vučinović Z. Pseudocyesis as a cause of abdomen enlargement in a female adolescent. Open Medicine. 2011;6(6):720-2.
- 22. Mendhekar D, Lohia D, Jiloha RC. Pseudocyesis in a pre-pubertal girl. The Indian Journal of Pediatrics. 2010;77(2):216-7.
- 23. Selzer JG. Pseudocyesis in a six-year-old girl. Journal of the American Academy of Child Psychiatry. 1968;7:693-720.

- 24. Evans DL, Seely TJ. Pseudocyesis in the male. J Nerv Ment Dis. 1984;172(1):37-40.
- 25. Evans WN. Simulated pregnancy in a male. Psychoanal Q. 1951;20(2):165-78.
- 26. Knight JA. False Pregnancy in a Male. Psychosomatic Medicine. 1960;22(4).
- 27. Novotný V, Mayer A. [A case of male pseudopregnancy]. Cesk Psychiatr. 1989;85(6):398-401.
- 28. Trivedi AN, Singh S. Pseudocyesis and its modern perspective. Aust N Z J Obstet Gynaecol. 1998;38(4):466-8.
- 29. Sultana K, Nazneen R, Ara I. Pseudocyesis: A Case Report on False Pregnancy. Journal of Dhaka Medical College. 2013;21(2):235-7.

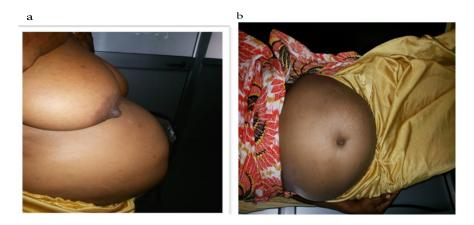


Figure 1: The abdominal and/or breast picture of the patient: standing (a) and lateral view (b)