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Pseudocyesis in peri- and postmenopausal women

Case Report

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Abstract: Pseudocyesis or delusion of pregnancy is a rare psychopathological syndrome described in humans and higher mammals. We describe and discuss two cases of this rare syndrome in a 46-year perimenopausal and a 59-year old postmenopausal woman. Gynecologic, ultrasound examination, and biochemistry testing (β-HCG) confirm the diagnosis of nonexistent clinical and biochemical pregnancy. These examinations have the potential to confirm abdominal tumors, while psychiatric examinations generally reveal the psychic basis of the disease; which should be treated through team approach by both the psychiatrist and gynecologist. Additionally, special reference should be given to long-term psychiatric follow-up and management of the current mental stress and emotional problems by a combination of antipsychotics and psychotherapy, depending on each individual clinical picture.

Keywords: *Pseudocyesis • Postmenopausis • Psychopathology*

1. Introduction

Pseudocyesis (delusion of pregnancy, spurious pregnancy, fr. *grossesse nerveuse*, lat. *graviditas immaginata*) is a rare psychopathological syndrome described in humans and higher mammals. It is most commonly encountered in elderly, fertile, menopausal women, less frequently in postmenopausal women [1-8], and even more infrequently in adolescence and childhood [9]. According to DSM IV (The Diagnostic and Statistical Manual of Mental Disorders) classification, pseudocyesis is categorized as a "somatoform disorder not otherwise specified" [10]. Psychopathologically, the syndrome is mostly underlain by schizophrenia, dissociative states of anxious disorders, progressive palsy, mood disorders, conversion neurosis, and psychosis with a strong auto suggestive compulsion for two reasons, fear from pregnancy or, more frequently, a strong wish for pregnancy. The syndrome rarely develops without such a psychopathological basis, occasionally in the period of climacterium [1,3,11,12]. Hippocrates described 12 cases of pseudocyesis. Mary Tudor, queen of England (1516-1558), suffered from this syndrome ("phantom pregnancy"). In the USA, some 250 cases of pseudocyesis were reported in 1940, whereas the current incidence of the syndrome is 1-6 cases *per* 22,000 deliveries, at the age range of 6.5 to 79 (mean 33) years [13,14]. We describe and discuss two cases of this rare syndrome in a perimenopausal and a postmenopausal woman.

2. Case Reports

2.1. Case 1

A 59-year-old woman presented to emergency gynecology clinic, accompanied by her sister, stating she had labor pains and was going to *"give birth to little Jesus"*. She had been in postmenopause for 8 years, never got pregnant nor given birth to a child; suffered from mild mental retardation but had never received psychiatric treatment or psychopharmaceuticals. She was single, living with her sister's family in the country, of middle socioeconomic status, frequently going to church, showing marked religious fanaticism. Her breasts were enlarged and tumescent wide gait due to the large, prominent abdomen. Therefore,

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transabdominal ultrasound study was performed, revealing a dilated, overfilled urinary bladder, before and after urination, uterus and ovaries of normal postmenopausal size and echostructure, and thin, linear endometrium; no pathological intrabdominal neoplasms or ascites. The patient was explained that she was not pregnant and would not give birth to a child, an idea she refused to accept, repetitively stating she was pregnant and was going to *"give birth to little Jesus".* She was referred to a psychiatrist, who made a diagnosis of delusional pregnancy and prescribed antipsychotic therapy. Hormone testing indicated hyperprolactinemia (prolactin, 782.09 μmol), the levels of estradiol, progesterone, FSH, LH and TSH were within the reference postmenopausal range, and β-HCG was negative. The hemogram, blood biochemistry tests and urine tests were within the reference values. Magnetic resonance imaging (MRI) of the pituitary gland was not performed for the patient's fear from this mode of examination. The patient did not present for control examination for some two months; then she came to produce normal serum prolactin finding, stating she had been pregnant and had lost her child several months before. She was treated by a psychiatrist and received antipsychotic therapy.

2.2. Case 2

A 46-year-old unmarried woman was admitted to emergency gynecology clinic for "abdominal pain" and absence of menstruation for six months. She had never given birth to a child, yet now she *"was pregnant with dwarf-twins, each of them longitudinally positioned on the lateral sides of her belly, kicking her stomach"*, therefore she presented to the surgery. Otherwise, she *"had been taking neuropharmaceuticals for years";* she brought no documentation along, and no heterohistory data was available. She was frightened, weeping, worried, and histrionically demanding *"urgent examination and admission to the ward, in order not to abort her dwarfies"* for which she had already chosen names. Gynecologic examination showed normal palpatory finding for a perimenopausal woman, morphologically normal US finding of pelvic organs, normal hormone test results except for elevated levels of LH, and negative β-HCG. During the studies, the patient worried about the children and wanted to call her psychiatrist to prescribe her some sedative that would not harm her children. She was referred to the department of psychiatry without confirmation of pregnancy, where she was hospitalized for treatment. The next day, she came to our department to inform us that *"the dwarfies died within her body and that her friend midwife would come to take them out".* The psychiatrist reported it was the first episode of spurious pregnancy in her psychiatric history, which revealed she had for years been treated from paranoid schizophrenia by antipsychotic agents.

3. Discussion

The etiopathogenesis of delusional pregnancy has a psychoneuroendocrine basis and includes corticovisceral, i.e. psychosomatic polymorphic manifestations inducing symptoms characteristic of pregnancy (the woman feels fetal movements in the uterus, her belly and breasts are enlarged, with the appearance of colostrum). Laboratory testing shows hyperprolactinemia and high LH levels [15], with consequential amenorrhea. Persisting luteinization of the ovaries produces changes specific for pregnancy such as meteorism and intestinal distention, enlargement of the abdominal adipose tissue ("belly enlargement") in 63%-97%, intestinal peristalsis or contractions of abdominal musculature ("fetal movements") in 48%-75%, irregular menstruation in 56%-98%, gestational changes of the breast in 59%, infertility in history in 59%, galactorrhea in 56%, weight gain in 44%, uterine enlargement in 25%, and initiation of false delivery in 1% of cases. Polydipsia associated with the syndrome of spurious pregnancy has been described in a schizoid 23-year-old patient [16]. Some authors consider that pseudocyesis is underlain by prolactin hypersensitivity with consequential immunoreactivity [1,4,6,7,11-14], whereas others believe that some neuroleptics can induce galactorrhea and the consequential symptoms of spurious pregnancy [17]. Griengl describes pseudocyesis in a patient with primary sterility without organic cerebral pathology and previous psychiatric disorders [6]. The most common symptoms of pseudocyesis in schizophrenic patients are illusions and hallucinations, the phenomena of depersonalization, derealization and personality transformation, as shown in our case 2 of a menopausal woman. Very rarely, these phenomena may also involve the spouse, when men present with bizarre symptoms of pseudocyesis [18]. In manic patients, the symptoms include grandiose ideas and thoughts, whereas in depressive patients they manifest as postpartum psychosis and pseudohallucinations. In individuals suffering from anxiety disorders, illusions of pregnancy may develop due to prolonged stress with dissociative reactions, depersonalization and derealization phenomena induced by fear from or wish for pregnancy [11,12], as in adolescents after prolonged use of contraceptives (e.g., gestagen depot) who develop illusions of pregnancy upon the stoppage of menstruation or have an underlying depressive syndrome [9].

In elderly and lonely women, the syndrome may occur as a mechanism of defense against unbearable reality, with hallucinations or illusions, whereby the environmental sociocultural factors play a major role, as shown in our case 1 of postmenopausal single woman with pronounced religious fanatism, whereas in case 2 the first ever episode of pseudocyesis occurred during the course of paranoid schizophrenic disorder [5,11,12]. Banchi-Demicheli *et al.* [8] describe pseudocyesis in a menopausal woman ten years after an abortion and sterilization.

Great caution is needed for informing the patient on the nonexistence of pregnancy because it may induce a variety of responses such as (attempted) suicide, slander, physical attack or charges against physicians. Cases of newborn steal, blackmail, deception and even homicide have been reported in individuals with anxious disorders, schizophrenia, mania or mental insufficiency. There are cases of artificial "abortions in delusional pregnancies", associated with numerous complications and forensic implications of the procedure; it may also be the reason for suspicion or accusation of abortion or infanticide when there is no overt causation of pseudocyesis [19]. Pseudocyesis should be differentiated from false pregnancy, the latter implying deliberate simulation of pregnancy without mental retardation, motivated by socioeconomic reasons and entailing considerable legal implications [20].

Gynecologic examination, US study and biochemistry testing (β-HCG) confirm the diagnosis of nonexisting clinical and biochemical pregnancy or of abdominal tumor (fast-growing giant tumors of the uterus or ovaries), while psychiatric examination generally reveals the psychic basis of the disease which should be treated through team approach by both the psychiatrist and gynecologist, with special reference to long-term psychiatric follow-up and management of the current mental stress and emotional problems by a combination of antipsychotics and psychotherapy, depending on each individual clinical picture.

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