Pseudocyesis

Paul M. Paulman, MD, and Abdul Sadat, MD
Omaha, Nebraska

Pseudocyesis has been known since antiquity. Hippocrates wrote of 12 women who "believed they were pregnant" in 300 BC.[1] Mary Tudor, Queen of England in the 16th century, thought herself to be pregnant. When she found out she was not, she embarked on the persecutions that made her reign infamous.[2]

Several names have been given to this condition including spurious pregnancy, feigned pregnancy, imaginary pregnancy, hysterical pregnancy, wind in the bowels, and grosses nerveuse. John Mason Good coined the term *pseudocyesis* from the Greek words *pseudes* (false) and *kyesis* (pregnancy) in 1923.[3] Flanders Dunbar defined pseudocyesis in 1938 as "a condition in which a woman firmly believes herself to be pregnant and develops objective pregnancy signs in the absence of pregnancy."[1] Although pseudocyesis is occasionally reported in men as well as in women, this definition holds true today.

ILLUSTRATIVE CASE

A 30-year-old single woman came to the University of Nebraska Family Practice Clinic for a prenatal evaluation. The patient stated that she was 13.5 weeks pregnant, had abdominal distension, and had felt fetal movements.

The patient's mental status examination was felt to be within normal limits. Physical examination revealed a 12-cm well-healed vertical midline lower abdominal scar. The patient's abdomen was slightly distended. Pelvic examination revealed the cervix and uterus to be absent. A urine test for human chorionic gonadotrophin was negative, and ultrasound of the pelvis revealed absence of the uterus. Past surgical and obstetric records (obtained later) showed the patient had two spontaneous abortions at 3 and 4 weeks' gestation, respectively, and no full-term pregnancies. Two years before the clinic visit, the patient had undergone an abdominal hysterectomy. The patient had been informed of the examination, laboratory, and ultrasound findings and appeared to accept them. A follow-up visit had been scheduled but the patient was lost to follow-up despite numerous telephone calls and letters.

BRIEF LITERATURE REVIEW

Etiology

There are several theories regarding the cause of pseudocyesis, the following of which are the most widely accepted:

1. *Conflict theory*. A desire for or fear of pregnancy creates an internal conflict and causes endocrine changes to explain the signs, symptoms, and laboratory findings in pseudocyesis.
2. *Wish-fulfillment theory*. Minor body changes initiate the false belief in pregnancy in susceptible individuals.
3. *Depression theory*. Pseudocyesis may be initiated by the neuroendocrine changes associated with a major depressive disorder.

There is evidence in the literature to support all of these theories, and one or more may be simultaneously appropriate for patients with pseudocyesis. Pseudocyesis is considered a heterogeneous disorder without a unifying cause. Research to discover the underlying cause of pseudocyesis has been hampered by the relatively low numbers of patients with the illness.

Epidemiology

Pseudocyesis occurs at a frequency of 1 to 6 cases per 22,000 births.[4] The peak incidence of case reporting was between 1890 and 1910, when 156 cases were reported in the English literature; in contrast, only 42 cases were reported between 1959 and 1979. The age range of patients with pseudocyesis is 6 1/2 to 79 years (with an average age of 33 years). Eighty percent of women with pseydocyesis are married, 14.6% are unmarried, and 2.3% are wid-

Submitted, revised, February 6, 1990.

From the University of Nebraska Medical Center, Department of Family Practice, Omaha, Nebraska. At the time this paper was written, Dr Sadat was a third-year resident in family practice. Requests for reprints should be addressed to Paul Paulman, MD, Department of Family Practice, University of Nebraska Medical Center, 600 South 42nd St, Omaha, NE 68198-3075.

TABLE 1. SIGNS AND SYMPTOMS OF PSEUDOCYESIS	
Signs or Symptoms	**Percentage of Patients**
Abdominal enlargement	63
Menstrual irregularities	56
Sensation of fetal movements	48
Gastrointestinal symptoms	41
Breast changes or secretions	40
Labor pains	28
Uterine enlargement	9
Cervical softening	6

From Small.[5]

owed. Pseudocyesis is more common in women during their second marriage than during their first marriage. Thirty-seven percent of women with pseudocyesis have been pregnant at least once. Symptoms usually last 9 months but can last for a few months or up to several years. There have been over 500 cases of pseudocyesis reported in women and at least three cases reported in men.

Signs and Symptoms

Almost every symptom and sign of pregnancy except for true fetal heart tones, fetal parts seen by imaging techniques, and delivery of the fetus, have been documented in patients with pseudocyesis (Table 1).[5]

The most common sign of pseudocyesis, abdominal distension, is thought to be due to excess fat, gaseous distension, fecal and urinary retention, and an exaggerated lumbar lordosis causing forward displacement of the abdominal viscera. The abdominal distension often resolves under general anesthesia.

Laboratory Findings

Laboratory findings in patients with pseudocyesis show variable results. Estrogen and progesterone values can be high, low, or normal; prolactin tends to be elevated, and follicle stimulating hormone (FSH) tends to be low. There has been a documented case of a persistent corpus luteum in pseudocyesis.[6]

Positive pregnancy tests have been documented in patients with pseudocyesis.[5] Elevated prolactin levels have been implicated as the cause for many of the signs of pseudocyesis. Fischer[7] reported a patient with albuminuria, hypertension, and pedal edema who was treated for toxemia.

Diagnosis

A distended abdomen with an inverted umbilicus is felt to be diagnostic of pseudocyesis.[1] Abdominal ultrasound can confirm and document the absence of fetus and placenta. The differential diagnosis of pseudocyesis includes pregnancy, ectopic pregnancy, molar pregnancy, corpus luteum cyst, pituitary tumor, and pelvic tumor.

Treatment

Because pseudocyesis is a heterogeneous condition with no one unifying cause, there is no one universally accepted therapy. Opiods, purgatives, hypnosis, endometrial curettage, and massage have all been tried with varying degrees of success.[5] The most successful (and least invasive) forms of therapy currently used seem to be revealing to the patient that she or he is not pregnant by an abdominal imaging technique, counseling and educating the patient, and treating any underlying depression. Fried and associates[8] defined successful treatment as a 6-month symptom-free period. Symptoms can persist for months to years. At least one patient has been cured by experiencing "hysterical childbirth" at the end of 9 months of symptoms.[9] There are no good data available on treatment effectiveness, cure, or recurrence rates.

Pseudocyesis is an uncommon disorder with no single underlying cause. Family physicians can help these patients by recognition of the illness, education and counseling, treating depression if present, and providing support during recovery.

References

1. Murray JL, Abraham EG: Pseudocyesis, a review. Obstet Gynecol 1978; 51;627–631
2. Aldrich CK: A case of recurrent pseudocyesis. Perspect Biol Med 1972; 16:11–21
3. Barglow P, Brown E: Pseudocyesis. In Howells JC (ed): Modern Perspectives in Psycho-Obstetrics. New York, Brunner/Mazel, 1972, pp 53–76
4. Cohen LM: A current perspective of pseudocyesis. Am J Psychiatry 1982; 139:1140–1144
5. Small GW: Pseudocyesis: An overview. Am J Psychiatry 1986; 31:452–457
6. Moulton R: The psychosomatic implications of pseudocyesis. Psychosom Med 1962; 4:376–389
7. Fischer IC: Hypothalamic amenorrhea: Pseudocyesis. In Kroger WAS(ed): Psychosomatic Obstetrics, Gynecology and Endocrinology. Springfield, Ill, Charles C Thomas, 1962, pp 291–297
8. Fried PH, Rakoff AE, Schopbach RR, et al: Pseudocyesis: A psychosomatic study in gynecology. JAMA 1951; 145:1329–1335
9. Abraham HS: Pseudocyesis followed by true pregnancy in the termination phase of an analysis. Br J Med Psychol 1969; 42:255–262