Pseudolabor: A New Conversion Disorder Subtype? A Case Presentation and Literature Review

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Pseudolabor is not a recognized conversion disorder subtype. The diagnosis of conversion disorder is suspected when a patient presents with symptoms under voluntary control that mimic a neurologic or medical condition. The term *pseudolabor* was first used in 1994 to describe a patient who presented at 27 weeks' gestation with monitored contraction activity and no palpable uterine contractions. A second case is presented herein. Both patients were initially managed as though they had preterm labor or uterine irritability with minimal cervical changes. The diagnosis was suspected only after each patient failed to respond to aggressive tocolysis. On external tocodynamometry, contractions were abrupt in onset and abrupt in descent. Only after palpating abdominal contractions and not uterine contractions did the attending physicians make the correct diagnosis. The development of pseudolabor in a patient with previously diagnosed pseudoseizures suggests that the condition was conversion disorder. The prevalence of pseudolabor is unknown and may be underestimated: electronic fetal monitoring has minimized the need to palpate uterine contractions in the laboring patient. The diagnosis of pseudolabor as a subtype of conversion disorder should be considered in any patient who presents with recurrent preterm uterine contractions, no (or minimal) cervical changes, and an atypical contraction pattern.

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External tocodynamometry records the involuntary uterine contractions of a woman in labor. In high-risk pregnancies, the tocodynamometer can record the uterine contractions of early preterm labor. However, the specificity of these findings is low: the patient who presents with preterm uterine contractions and subtle cervical changes may be falsely diagnosed with preterm labor 40% of the time.[1] Two newer tests (fetal fibronectin, transvaginal cervical sonography) when used together have a high negative predictive value and permit the physician to safely withhold tocolytics.[1] However, these tests are widely unavailable. Most clinicians continue to diagnose premature labor when persistent monitored uterine contractions are accompanied by progressive cervical dilatation and effacement.[1]

The diagnosis of conversion disorder is suspected when a patient presents with voluntary motor and/or sensory symptoms that mimic a neurologic or medical condition. The 6 diagnostic criteria for code 300.11 DSM-IV-TR conversion disorder are as follows (abstracted from DSM-IV-TR, p. 498)[2]:

1. At least 1 symptom suggests a neurologic or medical condition affecting motor or sensory function normally under voluntary control.
2. The symptom is preceded by or associated with significant stressors.
3. The condition is not contrived, as with malingerers who stage a factitious illness.
4. No medical condition can explain the deficit. The symptom is neither drug induced nor part of a cultural experience or tradition.
5. The symptom causes genuine concern or distress, interferes with normal life functioning, and requires a medical evaluation.
6. The symptom is more than pain or sexual dysfunction and does not present as a somatization disorder or other psychiatric condition.

Pseudolabor is not described in the DSM-IV-TR. The patient discussed below presented with monitored uterine contractions and subtle cervical changes suggestive of preterm labor. She was aggressively treated for a perceived clinical risk of preterm delivery until the correct diagnosis of conversion disorder was suspected.

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CASE: PSEUDOLABOR

A young gravida 4, para 1 woman presented to labor and delivery at 30 weeks' gestation complaining of labor pains. At admission, no contractions were palpated or recorded, the fetal monitor tracing was reassuring, and her cervix was not dilated. She returned at 32 weeks' gestation in apparent active labor. The house officer who had previously examined her thought that the cervix was now 2 cm dilated. Urinalysis was negative for infection, and cervical and vaginal cultures were obtained. An obstetric ultrasound was normal, and cervical length was thought to be within normal limits. The patient received intravenous fluids and 2 doses of nifedipine, an oral tocolytic, with no change in the frequency or intensity of monitored contractions. Her abnormal labor pattern was reassessed: the monitor was recording high amplitude contractions abrupt in onset, abrupt in descent, and occurring every 2 to 3 minutes. The possibility of artifactual labor, or pseudolabor, was entertained. The patient was reexamined with one hand palpating her uterus and the other hand resting on her abdomen. Abdominal muscles were noted to contract with each contraction recorded on the monitor. She was then asked to relax her abdominal muscles each time she felt a contraction. The contractions disappeared immediately (Figure 1). She had no explanation for her dramatic improvement and wanted to leave the hospital immediately with her husband.

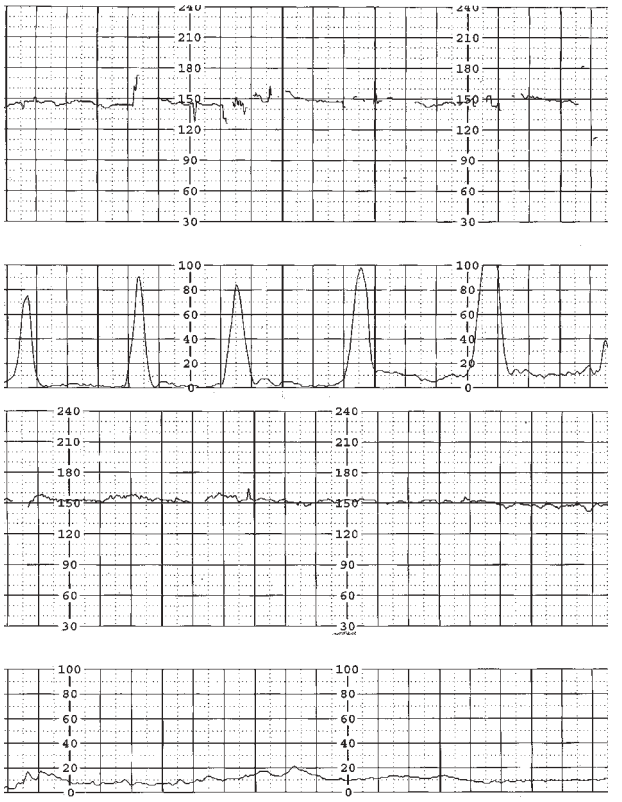
Before discharge, the patient's old hospital records were retrieved. Her first pregnancy had been complicated by recurrent admissions for preterm labor, maintenance oral tocolytics, and delivery at term. Archived labor tracings recorded a similar (although less dramatic) pattern of contractions that were abrupt in onset and abrupt in descent, suggesting that pseudolabor may have complicated her first pregnancy as well. She was subsequently hospitalized for new-onset seizures refractory to medical management. During the admission, the patient was observed to have a normal electroencephalogram (EEG) while actively seizing. The consulting psychiatrist alluded to a prior medical history of recurrent atrial tachycardia, a troubled marriage, and underlying anxiety as significant contributors to her presentation. Both neurology and psychiatry concurred with the diagnosis of pseudoseizures and anticonvulsants were discontinued.

The patient was discharged to outpatient follow-up and required no further visits to labor and delivery. She eventually delivered a healthy baby at term.

LITERATURE REVIEW

Using the word *pseudolabor*, a MEDLINE review of the English literature from January 1980 to June 2003 found a single article that discussed the subject. Bayer-Zwirello and colleagues[3] in 1994 described a patient with

Figure 1. Electronic Fetal Monitor Tracing: Resolution of Pseudolabor During Counseling



regular contractions of abrupt onset with a flat top and an abrupt descent on the monitor tracings. The diagnosis of pseudolabor was proposed after uterine activity recorded on the monitor could not be palpated. The authors attributed these mock contractions to repetitive Valsalva maneuvers under the voluntary control of the patient. Tocolytics were discontinued, and the patient was referred for psychotherapy with the diagnosis of posttraumatic stress disorder (PTSD). Her physicians could not determine whether she had conversion disorder, Munchausen syndrome, factitious contractions, or an anxiety disorder.[3] The authors did suggest that total reliance on the external tocodynamometer to diagnose preterm uterine contractions and failing to palpate the abdomen could lead to the wrong diagnosis and inappropriate treatment.[3]

Using the term *factitious labor*, a MEDLINE review of the English literature from January 1980 to June 2003 found a single article. Goodlin[4] in 1985 attributed 2 cases of factitious labor to Munchausen syndrome. One patient developed pulmonary edema from terbutaline, and the other (after numerous hospital admissions) underwent an unnecessary cervical cerclage. The actual fetal monitoring tracings were not published. Unfortunately, the author failed to reference the *Diagnostic and Statistical Manual*

of Mental Disorders (DSM) used by psychiatrists to diagnose Munchausen syndrome in 1985. Only 10% of patients with a factitious disorder actually have Munchausen syndrome.[5] Implied in the diagnosis is wandering from one hospital to another, complex pathological lying, quarreling with staff when the factitious nature of the patient's illness is revealed, and a desire to "assume the sick role."[5]

DISCUSSION

Our patient with pseudolabor had been previously diagnosed with pseudoseizures, a diagnostic feature of conversion disorder. Differentiating new conversion symptoms from a true medical illness may be challenging. Symptoms of conversion disorder first appear in early adulthood[6]—also an age when many women conceive. The emergence of new symptoms (i.e., pseudolabor) is not unusual when patients are followed over a period of time.[6] The previous diagnosis of conversion disorder in a patient who presents with new, unexplained symptoms makes it less likely that she has a true disease.[6] Other psychiatric diagnoses might explain our patient's presentation but are unlikely. Although a new conversion symptom can arise in the context of somatization disorder, the patient with somatization disorder typically presents with multiple symptoms in different organ systems.[6]

Is pseudolabor a form of Munchausen syndrome, the classic factitious disorder? Our patient was given potentially toxic medications for both pseudoseizures (anticonvulsants) and pseudolabor (nifedipine). She also endured many vaginal examinations that were both uncomfortable and unnecessary, although she voiced no complaints when discharged. In a factitious disorder such as Munchausen syndrome, external motives for the behavior are absent: the only motivation for the behavior is to "assume the sick role."[5]

According to Wiley,[7] patients with a factitious disorder present with a factitious history only, a feigned illness, or a true illness created by the patient. The patient with a factitious history has no actual findings when examined. A feigned illness has findings manipulated by the patient, such as the patient who adds a drop of blood to a urine sample and claims to have renal colic. A true illness fabricated by the patient requires a degree of medical sophistication. Schwartz and Xenakis[8] described a patient with Munchausen syndrome who self-injected beta-human chorionic gonadotropin (hCG) and convinced multiple surgeons to operate for ectopic pregnancy symptoms. Although some Munchausen patients may present with pseudolabor, our patient did not have the level of deception and manipulation required to diagnose a factitious disorder.[5]

Is pseudolabor an unrecognized consequence of our increasing dependence upon electronic fetal monitoring? Neither the physical examination nor the external tocodynamometer can distinguish between the uterine contractions of true labor and the contractions of false labor.[9] However, repetitive abdominal wall muscular contractions under the voluntary control of our patient were easily palpated, despite a monitored pattern that appeared to be uterine in origin (Figure 1). The contraction pattern of our patient shared important similarities with the contractions recorded by Bayer-Zwirello and colleagues[3] in 1994. Both patients had contractions that were abrupt in onset and descent, although their patient's waveform was flattened at its peak (they called it a "plateau" pattern)[3] and our patient's contractions were "spiked" (Figure 1).

It is difficult to withhold tocolysis from an actively contracting preterm labor patient who presents with subtle cervical changes. Although frequent uterine contractions in early pregnancy may predict a preterm delivery, aggressive contraction suppression does not prevent preterm birth.[1,9–11] Had we recognized initially that uterine contractions were absent, our search for subtle cervical changes might have been more objective and less urgent. Physicians are taught to follow the cervical examination of each woman who presents with preterm uterine contractions; the recommendation to palpate her abdomen and uterus is less clear. For this reason, the true prevalence of pseudolabor is unknown and may be underestimated.

TREATMENT

The MEDLINE literature review of pseudolabor or factitious labor found no evidenced-based recommendations upon which to base treatment. Pseudolabor may be treated as conversion disorder, as was done with our patient. Direct confrontation and accusations were avoided. Relaxation and reassurance were provided to our patient in a nonthreatening manner. These are also effective techniques for treating the patient who has any conversion symptoms.[5] When treating conversion disorder, reassurance from the psychiatrist is less important than reassurance from the attending physician.[5] Once true disease has been excluded, the patient with conversion symptoms has a good prognosis. One half of all patients admitted to a general hospital with conversion symptoms are asymptomatic upon discharge.[5] The remaining patients require extensive counseling to address the stressors or trauma that precipitated their symptoms.[12] Successful behavioral techniques include providing a safe environment with reassurance that a complete medical workup found no permanent damage and that a full recovery is to be expected. Patients are taught relaxation techniques such as biofeedback or relaxation training. Resistant cases may benefit from narcoanalysis (pharmacologically facilitated interviews) or hypnosis.[12] The goal in treatment is not to remove the symptoms but to allow the patient to better control the effects of emotions and stress on bodily functions.

The prognosis for the patient with pseudolabor is unclear, although our patient delivered at term twice.

SUMMARY

In summary, a patient with a history of preterm labor and pseudoseizures presented at 32 weeks' gestation in apparent labor with new cervical changes. She was aggressively treated for suspected preterm labor until the clinicians realized that the tocodynamometer was recording repetitive contractions of the patient's abdominal wall muscles. The most reasonable psychodynamic explanation for this presentation was pseudolabor, a new manifestation of her conversion disorder. The use of descriptive terms *mock*, *false*, or *factitious* preterm labor should be discarded in favor of the term *pseudolabor* as first used by Bayer-Zwirello et al.[3] in 1994. Pseudolabor in the preterm patient may be suspected if the tocodynamometer records a pattern of contractions abrupt in both onset and descent. However, the diagnosis of conversion disorder can only be confirmed when true uterine contractions are excluded by simultaneously palpating the abdomen and uterus while watching the monitor. The prevalence of pseudolabor as a new subtype of conversion disorder is unknown. The condition may be mistaken for uterine irritability or preterm labor in the patient who eventually delivers at term.

Drug names: nifedipine (Procardia, Adalat CC, and others), terbutaline (Brethine and others).

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