

LATRODECTUS MACTANS (BLACK WIDOW SPIDER) ENVENOMATION: AN UNUSUAL CAUSE FOR ABDOMINAL PAIN IN PREGNANCY

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Background: The differential diagnosis of abdominal pain in pregnancy is extensive. An important consideration in endemic areas is a bite by a black widow spider.

Case: A 30-year-old woman at 30 weeks' gestation presented with acute abdominal pain following an insect bite. We based the diagnosis on classic symptomatology in an area endemic for *Latrodectus mactans*. Treatment consisted of supportive therapy and observation. Symptoms resolved over 48 hours and did not recur. The patient delivered a healthy child at 40 weeks' gestation.

Conclusion: In endemic areas, black widow spider envenomation should be part of the differential diagnosis of abdominal pain in pregnancy. (*Obstet Gynecol* 1994;83: 830-1)

The evaluation and treatment of abdominal pain in pregnancy is a common and often perplexing problem. The differential diagnosis in the third trimester includes pregnancy-related illnesses; gastrointestinal, hepatobiliary, and renal causes; psychiatric and drug-related sources; and myriad unusual etiologies. In endemic areas, arthropod envenomation must be considered. We report a case of *Latrodectus mactans* envenomation presenting initially as abdominal pain. We are aware of only one other case report in the international literature of black widow spider bite in pregnancy.¹

Case Report

A 30-year-old Native American woman, gravida 3, para 2, presented at 30 weeks and 6 days' gestation with complaints of abdominal cramps and upper thigh pain. Her symptoms had awoken her from sleep, which had been undisturbed except for an "insect bite" behind her right knee some hours earlier. Specifically, the patient denied nausea, anorexia, vomiting, diarrhea, fever, chills, dysuria, hematuria, vaginal bleeding, recent travel or illness, unusual food intake, trauma, and drug, alcohol, or medication use. No other family members at home were ill. Her prenatal care had been uncomplicated, with normal antepartum blood pressure and

normal glucose tolerance testing. Her past medical history was notable only for two spontaneous vaginal deliveries at term, a history of syphilis 6 years earlier (treated and with negative serology), and the smoking of three cigarettes per week.

Physical examination demonstrated a writhing, anxious, obese woman who appeared moderately ill. Her blood pressure was 139/73 mmHg and pulse was 63 beats per minute. She was afebrile. Her general physical examination was unremarkable. Her abdomen was soft, with normal bowel sounds and mild diffuse tenderness, but without signs of peritoneal irritation. There was no uterine tenderness or palpable contractions. Behind her right knee, there was a barely discernible pinpoint lesion without erythema, tenderness, or swelling. Her cervix was long, closed, and posterior. The fetal heart rate was 130-140 beats per minute and reactive. Ultrasound revealed a singleton, breech fetus, appropriate for gestational age, with normal amniotic fluid volume and without retroplacental pathology.

Initial laboratory values revealed a normal complete blood count, electrolytes, renal function tests, bilirubin, and liver enzymes. A urinalysis was negative, and a right upper-quadrant ultrasound showed no cholelithiasis.

Initial therapy included intravenous hydration and observation. Several hours later, the patient's symptoms and examination results were unchanged, and an enema had had no effect. Ten milliliters of 10% calcium gluconate was given intravenously with little effect. The patient was unable to sleep, complained of leg cramps, and moved constantly in her bed. About 15 hours after admission, she began complaining of severe paresthesias, with "burning" of the soles of her feet. Notably, no practitioner had inquired about this specific complaint. Over the next 24 hours, she had gradual resolution of her symptoms and mild hypertension, and was discharged on hospital day 2.

At 40 weeks and 1 day of gestation, the patient went into spontaneous labor and delivered a healthy male infant weighing 4380 g, with Apgar scores of 7 and 9 at 1 and 5 minutes, respectively.

Discussion

Latrodectus mactans, the black widow spider, is found in every state except Alaska. Envenomation is more common in the southwest, where the arid climate promotes the species habitat. The female is shiny black, usually less than 2.5 cm, with an hourglass-shaped red-to-yellow marking on her abdomen. The male is small, brown, and not venomous.² The bite is often overlooked and the site is usually unremarkable. The presence of a skin lesion at the location of the black widow bite is rare. A small red papule may be noted, but usually without swelling or pain. Therefore, the diagnosis of black widow spider bite is always presumptive, unless the victim brings the spider with her.

Latrodectus venom has no local inflammagens and is primarily a neurotoxin, altering the structure and function of nerve terminals.³ It is unknown whether the venom crosses the placenta or has direct fetal effects.

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Maternal mortality from black widow spider bite can be as high as 5%.

Characteristically, within a few hours of being bitten, the victim experiences muscle spasms and abdominal cramps. The pain can be intense and produce a high degree of anxiety. Paresthesias, often described as a burning sensation, can affect any part of the body, but is usually worst on the soles of the feet. Numerous less-common findings have been reported, including nausea and vomiting, ptosis, sialorrhea, and low-grade fever. The most serious complications are severe hypertension and seizures. Severe envenomation can produce albuminuria and hyperreflexia, mimicking eclampsia.⁴ Abdominal and truncal rigidity can lead to surgical intervention.

Treatment is supportive and symptomatic. Muscle spasms, headaches, and vomiting respond to 5–10 mL of 10% calcium gluconate, but this treatment has little effect on abdominal pain. An antivenin exists, but carries a marked risk of serum sickness and anaphylaxis.² Indications for antivenin in pregnancy include uncontrolled seizures and severe hypertension. Skin testing is mandatory before administration.

Abdominal pain of the severity seen in this case must prompt an immediate and thorough evaluation. Our patient was not believed to have an acute abdomen, premature labor, preeclampsia, or placental abruption. No evidence for infection or ongoing hemorrhage was present. Renal or biliary colic seemed unlikely with a normal urinalysis, liver enzymes, and right upper-quadrant ultrasound. She repeatedly denied drug or medication ingestion. The stable clinical

course of our patient during the first hours of evaluation allowed us to consider more unusual etiologies.

Our patient had the characteristic history of an "insect bite," anxiety, muscle spasms, mild hypertension, abdominal pain, and paresthesias. Although calcium gluconate did not alter her course, her symptoms at the time were primarily abdominal pain, for which calcium has lesser value. Throughout her course, the fetus showed no ill effects, and the mother recovered completely within 36 hours. In endemic areas, black widow spider envenomation should be part of the differential diagnosis of abdominal pain in pregnancy.

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PRIMARY ADENOCARCINOMA OF THE GALLBLADDER PRESENTING AS PRIMARY GYNECOLOGIC MALIGNANCY: A REPORT OF TWO CASES

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Background: Carcinoma metastatic to the uterus from extra-genital sites is rare. Such metastatic disease is typically diagnosed at autopsy or in patients with known primary malignancies. This report discusses two cases of primary

carcinoma of the gallbladder presenting as abnormalities in gynecologic screening procedures.

Cases: A 71-year-old woman presented with postmenopausal bleeding. Uterine curettage revealed poorly differentiated adenocarcinoma of presumed endometrial origin. Intraoperative frozen-section analysis of the uterus showed carcinoma involving the lymphatics, but no primary tumor. Further exploration revealed primary adenocarcinoma of the gallbladder, with widespread metastases. The second case was a 67-year-old asymptomatic woman. Routine cervical cytology showed adenocarcinoma, but tissue studies were negative. She developed jaundice 1 month later. Computed tomography of the upper abdomen revealed a mass in the gallbladder fossa, and needle biopsy of the lesion showed adenocarcinoma.

Conclusions: Metastatic carcinoma of non-genital tract origin may present as primary gynecologic malignancy. The physician should be aware of the implications of both the common and unusual interpretations of screening and diagnostic procedures. When the clinicopathologic presentation is atypical, a thorough knowledge of the differential diagnoses of abnormal test results allows appropriate and expeditious patient management. (*Obstet Gynecol* 1994;83:831-4)

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