

HEMORRHAGIC SYNDROME AND ACUTE RENAL FAILURE IN A PREGNANT WOMAN AFTER CONTACT WITH *Lonomia* CATERPILLARS: A CASE REPORT

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SUMMARY

A case of a 37-week pregnant woman who developed a hemorrhagic syndrome and acute renal failure after contact with *Lonomia* caterpillars is reported. The accident also initiated labour and the patient gave birth to an alive child. Some pathophysiological aspects of the genital bleeding and of the acute renal failure are discussed.

KEYWORDS: *Lonomia* caterpillars; Hemorrhagic syndrome; Pregnancy; Acute renal failure, Mogi das Cruzes

INTRODUCTION

A hemorrhagic syndrome after contact with caterpillars of the Saturniidae family (*Lonomia achelous*) was described in five patients by AROCHA-PINANGO (1967) and AROCHA-PINANGO & LAYRISSE (1969) in Venezuela^{1,2}. FRAIHA et al. (1986)⁷ described similar cases (*Lonomia achelous*) in northern Brazil, and DUARTE et al. (1990)⁴ reported some other cases (*Lonomia obliqua*) in southern Brazil. The syndrome is characterized by intense fibrinolytic activity and, probably, by varying degrees of disseminated intravascular coagulation. The symptoms usually begin with a burning sensation at the site of contact, followed by erythema, edema and heat. Headache, general discomfort, nausea and vomit may occur. The bleeding phenomena may start 1 to 12 h after contact, and include ecchymoses and hematomas of variable intensity, and profuse bleeding from many sites (nose, gums, gut, genitourinary tract, and even from healing scars). Polyarthralgia was also described in the first 24h. Laboratory tests show prolonged PT, APTT and thrombin time, as well as hypofibrinogenemia and normal or slightly low platelet count^{4,5,8}. Acute renal failure (ARF) following this accidents was initially described by DUARTE et al. (1990)⁴. Renal biopsy was performed for the first time by BURDMANN et al. (1996)³, which disclosed slight alterations more suggestive of ischemic lesion than nephrotoxicity.

CASE REPORT

A 37-year old, white, 37-week pregnant woman had an accidental contact with *Lonomia obliqua* caterpillars in her right forearm, in the city council of Mogi das Cruzes, nearby the city of São Paulo. Immediately after the accident there was a burning pain and an erythema at the site of contact. After a few minutes the patient had a severe frontal headache, nausea, vomits, dyspnea and general discomfort. Five to six hours after the accident she developed anuria and started bleeding from her gums for about 2 hours; the bleeding stopped spontaneously. After approximately 24 hours she developed genital bleeding of moderate intensity and lower abdominal pain, after which she went to an emergency service. She had an initial diagnosis of abruptio placentae and gave birth to a slightly hypoxic child (who left the hospital well after 2 days); she, then, developed post delivery hemorrhage and hypovolemic shock. She had confluent ecchymotic areas in her upper extremities. The laboratory tests performed on the third day after the accident disclosed prolonged PT (INR = 1.5 and prothrombin activity of 63%) and APTT (46s), slightly low platelet count (140,000/mm³), low hemoglobin (6.8g/dl) and leukocytosis (15,000/mm³, with 84% neutrophils). The coagulation tests were normal by the 5th day. An assay for plasma fibrinogen was performed only on the 9th day, showing a normal level. The patient developed ARF with a serum creatinine level rising from 4.0 mg/dl approximately 25h after the accident to 10.1mg/dl on the

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4th day after the accident, despite the treatment of the hypovolemic shock; she had also rising serum potassium levels (3.9mEq/l to 5.7meq/l) and urea levels (41 mg/dl to 169 mg/dl). She started hemodialysis on the 5th day after the accident for about 3 weeks. She remained oliguric for about 2 weeks (on the 16th day she voided 500 ml/24h and on the 30th day, 200ml/24h). Her serum creatinine level dropped to 3.8mg/dl on the 36th day and she recovered her renal function completely. On the 27th day after the accident a renal biopsy was performed, and showed aspects compatible with tubular acute necrosis in regeneration.

DISCUSSION

There are no cases of such accidents with pregnant woman described in the literature. Four cases of snakebite (fibrinolytic venom) in pregnancy were reported by PARRISH & KHAN (1966)⁹, one of which resulted in abortion. These authors concluded that, at least three pathophysiologic mechanisms, or a combination of these, could account for the abortion: (1) anoxia associated with hemorrhagic shock; (2) hemorrhages into the placenta and uterine wall, resulting from the action of hemorrhagic and proteolytic fractions of snake venoms; and (3) uterine contractions (which some venoms are capable of initiating). A case of abruptio placentae after a snakebite was reported by ZUGAIB et al. (1985)¹⁰ in a 25-year old woman with a 32-week pregnancy. It's possible that our patient have had an abruptio placentae due to bleeding into the placenta. DUNNIHOO et al. (1992)⁶, in a review of the literature (50 cases of snakebite in pregnancy), found a fetal mortality rate of 43% and a maternal mortality rate of 10%.

The cause of ARF in these patients remains unclear, however some situations could have a pathophysiologic role: (1) the hemorrhagic diathesis could be accompanied by deposition of microthrombi in glomeruli; (2) there could be a direct nephrotoxic action of the venom; and (3) shock following the hemorrhagic syndrome could cause ischemic renal lesions. In our case it seems very probable that the patient developed an acute tubular necrosis following the hemorrhagic shock. Even though she had been anuric for nearly 24 hours before the genital bleeding started. There is, however, a report of a patient who was never hypotensive and developed ARF after contact with these caterpillars². It is important that doctors be aware of this syndrome, and that pregnancy may be complicated by the contact with this type of caterpillars.

RESUMO

Síndrome hemorrágica e insuficiência renal aguda numa gestante após contato com lagartas do gênero *Lonomia*: relato de um caso

Um caso de uma gestante de 37 semanas que desen-volveu uma síndrome hemorrágica e insuficiência renal aguda após

contato com lagartas do gênero *Lonomia* é relatado. O acidente desencadeou trabalho de parto prematuro e a paciente deu à luz a um recém nascido vivo. Alguns aspectos fisiopatológicos do sangramento genital e da insuficiência renal aguda são discutidos.

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