Kathryn Sims, PGY1
Pediatric Emergency Medicine Conference
September 12, 2014
**Chief Complaint:** A 6 year old boy was brought to the ED after his grandmother noticed a worsening lesion on his right arm.

**HPI:** He had been visiting family in Louisiana and was playing a game of hide-n-seek yesterday when he hid behind a bookshelf in his grandmother’s basement. A few minutes later, he felt a burning sensation on his arm and noticed a rash (A). Four hours later, he started to develop increasing pain of the rash. Grandmother gave him some Benadryl and put him to bed. This evening, grandmother noticed the lesion looked much worse (B) so he was brought to the ED.
Case 1

As the resident in the ED, what would be the appropriate course of action for this patient?

A. Provide local wound care, Administer pain medication as needed, and Administer a dose of Steroids

A. Provide local wound care, Administer pain medication as needed, and Administer a dose of Dapsone

A. Provide local wound care, Administer pain medication as needed, Call Pedi Surgery for excision and/or curettage

A. Administer pain medication as needed and Call Pedi Surgery immediately for excision and/or curettage

A. Administer another dose of Benadryl and send the patient home
## Discussion: Recluse Spiders

<table>
<thead>
<tr>
<th>Geographic Location</th>
<th>Appearance</th>
<th>Typical Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>• United States: Mid-west and Southern states extending westward</td>
<td>• Brown spiders with 3 pairs of eyes (6 total)</td>
<td>• Mostly inside homes: attics, basements, cupboards</td>
</tr>
<tr>
<td>• South America (Brazil, Chile, others)</td>
<td></td>
<td>• Outdoors: in rock piles and under tree bark, <strong>NOT</strong> in live vegetation</td>
</tr>
</tbody>
</table>

![Map showing the distribution of recluse spiders in the United States.](image-url)
Discussion: Presentation of Recluse Spider Bite

- Recluse spiders typically bite humans as a last resort defense mechanism if they are being crushed.
- Bites typically occur on the upper extremities, thighs and trunk. Lesions on the hand or face are rare.
- Initial bite is usually painless, but may have a burning sensation. Two small cutaneous puncture marks with surrounding erythema will develop into a red plaque or papule with central pallor. After 2-8 hours, the pain usually increases.
- Most cases are self-limited, resolving in 1 week. Some cases develop a dark, depressed center over the course of 24-48 hours, culminating in a dry eschar that ulcerates.
- Small children are more susceptible to systemic findings over the next few days
  - Malaise, nausea and vomiting, fever, and myalgias

* Vesiculation may occur around the site.
Discussion: Acute Management of Recluse Spider Bite

- Local wound care:
  - Cleaning the site with mild soap and water
  - Applying cold packs as needed
- Administration of pain medication*
- Administration of antibiotics if there are signs of infection **
- Administration of Dapsone for necrosis ***

* Some children may require opioids
** Dicloxacillin 25-50 mg/kg/day ÷ q6, Clindamycin 20-30 mg/kg/day ÷ q6, or Cephalexin 25-50 mg/kg/day ÷ q6 or q8
*** Should be screened for G6PD before administration
Discussion: Acute Management of Recluse Spider Bite

• Early surgical intervention has been shown to cause painful and recurrent wound breakdown more often.
• Debridement of the wound after it is demarcated and clinically stable has been shown to help with healing.
• The role antihistamines and steroids in treatment has been insufficiently studied and are not advised.
• Antivenoms are available in South America, but not in the United States.
Case 2

**Chief Complaint:** A 5 year old girl presents to the ED with a lesion on her left foot.

**HPI:** She was getting ready to garden with her mother earlier today. She stuck her foot inside of her mother’s gardening boots in the outside storage shed and immediately felt a pinprick sensation. The mother saw a shiny black spider with red markings crawling out of the boot. After about 30 minutes, the child started to sweat. She stated the pain worsened over the next hour, traveling from the foot, up the leg, and to the trunk. She then began to experience generalized muscle pain and muscle spasms. She also endorsed a headache. The child stated that she felt nauseous and complained of generalized abdominal pain. She had one episode of NBNB emesis at that time so her mother brought her to the ED.
Case 2

On arrival to the ED, the patient is tachycardic and hypertensive. You notice a blanched, circular patch with surrounding red perimeter and central punctum on the right foot. You quickly determine that the child is most likely experiencing lactroductism from a spider bite. What is the appropriate course of action?

A. Local wound care, Administer IV Morphine, Lorazepam, Zofran, Administer antivenom immediately
B. Local wound care, Administer IV Morphine, Lorazepam, Zofran, Consult Poison Control about antivenom
C. Local wound care, Administer IV Morphine, Lorazepam, Calcium, Zofran, Consult Poison Control about antivenom
D. Administer IV Morphine, Lorazepam, Zofran and Admit to PICU immediately
E. Administer IV Morphine, Lorazepam, Calcium, Zofran and Admit to PICU immediately
Case 2

On arrival to the ED, the patient is tachycardic and hypertensive. You notice a blanched, circular patch with surrounding red perimeter and central punctum on the right foot. You quickly determine that the child is most likely experiencing lactroductism from a spider bite. What is the appropriate course of action?

A. Local wound care, Administer IV Morphine, Lorazepam, Zofran, Administer antivenom immediately
B. Local wound care, Administer IV Morphine, Lorazepam, Zofran, Consult Poison Control about antivenom
C. Local wound care, Administer IV Morphine, Lorazepam, Calcium, Zofran, Consult Poison Control about antivenom
D. Administer IV Morphine, Lorazepam, Zofran and Admit to PICU immediately
E. Administer IV Morphine, Lorazepam, Calcium, Zofran and Admit to PICU immediately
Discussion: Acute Management of Recluse Spider Bite

• For mild symptoms (localized irritation, spasm, and pain):
  • Local wound care
  • Oral analgesia as needed
  • Oral muscle relaxant

• For moderate (localized pain with diaphoresis) to severe symptoms (pain that is difficult to control or systemic findings):
  • Local wound care
  • IV opioids for pain
  • IV Benzodiazapine to reduce muscle spasms
  • IV antiemetic therapy for nausea and vomiting
  • Consult Poison Control about use of antivenom*

* May give antivenom in cases where symptoms are refractory to opioid and benzodiazapine treatment
References

- “Bites of Recluse Spiders”. UpToDate.com
- “Clinical Manifestations and Diagnosis of Widow Spider Bites”. UpToDate.com
- “Management of Widow Spider Bites”. UpToDate.com