

Kissing Bug Bites



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The Case

- Man in 60s suddenly wakes up early in the AM
- Immediately experiences the following symptoms:
 - N&V
 - Sweating
 - Palpitations
 - Redness and swelling at L elbow
- Upon standing, pt immediately had a syncopal episode
- Pt taken immediately to the ER and intubated

What's the Big Deal?

- Chaga's disease from kissing bug bites is quite rare in the US
 - Despite a large proportion of bugs carrying *T.cruzi*
- Far more commonly, subjects may experience localized reactions
 - Not always, as many individuals may not know they were bitten
- In some instances, this can start as or later become anaphylaxis
- Not unusual to be missed by diagnosticians

Kissing Bug Study Quote

“Scepticism on the part of family, friends and physicians is common. We have encountered instances where lack of cooperation and misidentification of the bug have prolonged patients' discomfort and placed them in a life-threatening situation. Victims of hymenopteran stings are immediate recipients of concern and consolation, while for many victims of *Triatoma* bites the onus is solely their own.”

Who is At Risk

- 5 *Triatoma* species of chief interest:
 - *T.rubida*
 - *T.protracta*
 - *T.gerstaeckeri*
 - *T.sanguisuga*
 - *T.rubrofasciata*
- These species are the most likely to lead to allergic reactions

Typical Local Symptoms/Presentation

- Itching/tenderness at site
- Edematous
- Reddish/purple in appearance
- Duration may be anywhere from 1-2 weeks



More Concerning Symptoms

- Prolonged reactions
- NVD
- Vaginal bleeding
- Angioedema
- Hypotension
- Stridor
- Wheezing
- Awoken from sleep

Differential Diagnoses

- Easy to mistake for other stinging/biting insects
- Shingles
- Contact dermatitis
- SSTIs

Characteristics of Bite Victims

Table 1. Characteristics of victims and their homes.

| BITE VICTIM CHARACTERISTICS (n = 10) | RESULT |
|---|--------------------------------|
| Age of house | 37 years (range 8–77 years) |
| Screens on windows | 80% |
| Outside night lights | 50% |
| Pets in house | 90% |
| Homeowner saw bugs in house within past month | 90% |
| History of allergy to kissing bug bite | 50% |
| Local skin reaction to bite | 100% |
| Local erythema and itching | 90% |
| Sought medical care for bite | 30% |
| Dizziness after bite | 40% |
| Breathing difficulty after bite | 20% |

Note: Individuals called the Arizona Poison and Drug Information Center following a kissing bug bite in 2015.

Concerns for the Future

- Repeat bites increases odds of an anaphylactic response
- What was the initial cause, if previously unknown?
 - Patients/families should search for the bug or signs of it if suspected
 - May require professional help to identify/eliminate
- How to respond to an emergency situation
 - Patients at risk of a severe reaction should be given IM epinephrine
 - Product should be kept at bedside

Immunotherapy

- Really doesn't exist for this issue
- Some attempts have been made:
 - Two publications in the 80s suggest possible successes
 - Both used antigen preparations for *T.protracta* anaphylaxis
 - Cumulatively looked at 6 patients
- 4 patients had no reaction upon rechallenge
 - One had mild welts that did not appear at a later rechallenge
 - The other continued to have a reaction though milder

Case Conclusion

- Serum tryptase obtained, suggested anaphylactic reaction
- A bug was found in pt's bed and identified as *T.rubida*
- Primary treatments administered:
 - IV fluids
 - Diphenhydramine
 - IM epinephrine
- Pt recovered well and was discharged w/ IM epinephrine

Overall Conclusions

- Allergic reactions/anaphylaxis to kissing bugs easy to miss
- Key symptoms, timing, and findings can guide suspicion
 - Particularly for individuals awoken from sleep with symptoms
- Best treatment is immediate administration of epinephrine
- For systemic reactions, provide IM epinephrine for the future