



Clinical Update

For Telephone Triage Nurses

September—October 2008

Page 1 of 2

In this Issue:

- Hives

Causes of Hives

- Infections 58% (UTIs, Strep throat, viral infections)
 - Drugs 5%
 - Foods 3%
 - Idiopathic 34%
 - Bee stings or insect bites
 - Pollen
 - Animal dander
- [Sackeson 2004]

Hives

Dear Nursing Colleague:

In this issue I would like to answer some questions about widespread hives (urticaria).

Hives: How to recognize? (see photo)

Diagnosis of hives by telephone is difficult unless the caller has seen hives before.

Minimal findings are the following:

- ◆ Widespread pink rash (not localized rash)
- ◆ Generally similar on both sides of the body (symmetrical)
- ◆ Raised (bumpy) rash that the caller can feel with eyes closed
- ◆ Itchy rash
- ◆ Sometimes hives are misdiagnosed even after being examined in the emergency department or office.

Why do we worry so much about Hives?

Hives are IgE mediated. Anaphylaxis is also IgE mediated. Hence we worry that hives might progress to life-threatening symptoms. The prevalence of anaphylactic reactions in the general population is less than 1% (more in adults than children).

The two main clues to hives that could progress to anaphylaxis are

- ◆ The onset within 2 hours of allergen exposure AND
- ◆ The suspected allergen is a High Risk one for anaphylaxis. To keep this in perspective, less than 10% of hives are due to food, drug or bee sting allergies (the main triggers for anaphylaxis).



This photograph shows the abdomen of a 4 year old child with pink itchy rash from hives.



This photograph shows the back of a 40 year old male with widespread hives.

Clinical Update

For Telephone Triage Nurses

Page 2 of 2

September—October 2008



Hives (Continued)

Better Triage for Calls about Acute Onset of Widespread Hives

Call 911 Now

- ◆ Previous anaphylactic reaction to similar substance
- ◆ Hives with life-threatening symptoms (e.g. wheezing, stridor, respiratory distress, fainted or can't stand because of dizziness, drooling or difficulty swallowing)

Go to ED Now (by car)

- ◆ Hives alone start within 2 hours following High Risk food (e.g. peanuts, tree nuts, fish, shellfish such as shrimp, eggs and cow's milk)
- ◆ Hives alone start within 2 hours following a High Risk drug (e.g. antibiotics). Note: hives do not progress to anaphylaxis unless they follow the first dose in a series.
- ◆ Hives alone start within 2 hours following a sting that contains venom (e.g. bees, yellow jackets, fire ants)

See Physician within 24 hours

- ◆ Hives start more than 2 hours after a drug or any other drug rash. Reason: need to see the rash and determine whether or not the rash is due to a drug allergy. Over 90% of drug-associated rashes are not allergic.
- ◆ Hives with Fever. Reason: need to rule out underlying bacterial infection (e.g., Strep pharyngitis)

See PCP within 3 days in Office

- ◆ Hives start more than 2 hours after a High Risk Food OR at anytime after a Low Risk food (one that generally is not associated with anaphylaxis)
- ◆ Hives start more than 2 hours following a Sting that contains venom.

Home Care

- ◆ Hives occur in 20% of children (often with a URI) and usually last 1 to 3 days.
- ◆ Over 90% of children who develop hives can be treated at home.
- ◆ Antihistamines are useful for relieving the itch and reducing the hives. Because the hives return (or flare-up) whenever the Benadryl level falls, we need to encourage parents to give it at regular intervals (every 6 to 8 hours) until they disappear.
- ◆ The 2nd generation antihistamines (e.g. OTC cetirizine) are equally effective and have the advantage of lasting up to 24 hours.

Regards, Bart Schmitt, M.D.

Schmitt-Thompson
Clinical Content

References:

1. Plumb J, et al.. Exposure and outcomes of children with urticaria seen in a pediatric practice-based research network. Arch Pediatr Adolesc Med. 2001;155:1017-1021.
2. Sackesen C, et al. The etiology of different forms of urticaria in childhood. Pediatr Dermatol. 2004;21:102-108.

Copyright 2008.
Barton Schmitt, M.D.
David Thompson, M.D.