

THE BETRAYING HONEY: A RARE CASE OF ALLERGY TO HONEYDEW AND WILDFLOWER HONEY

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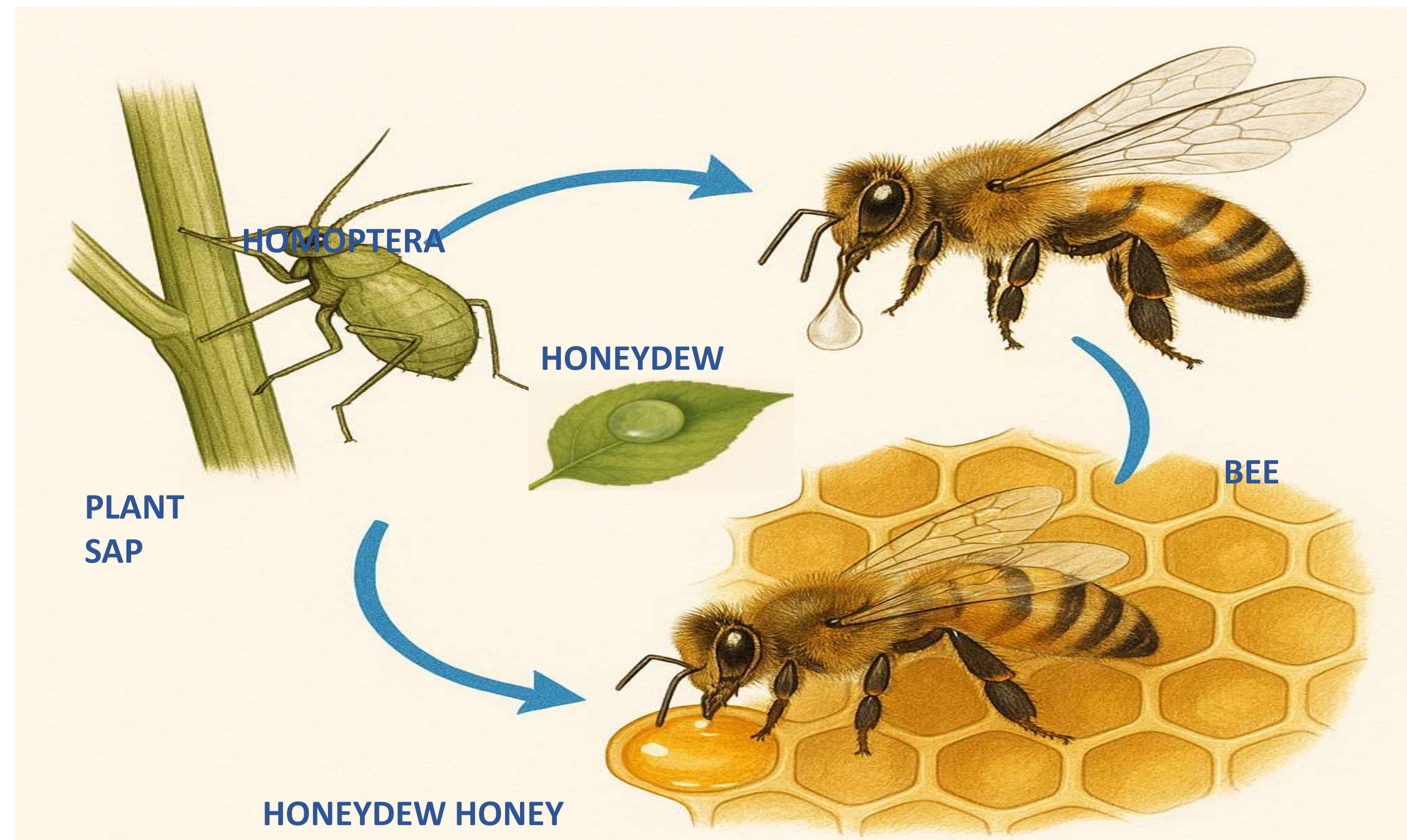
Introduction

Honey allergy is rare, with an estimated incidence about 0.001%.
"Classic" honey contains two components:

- directly derived from bees (**glandular secretions and wax**)
- linked to foraging (**flower nectar and pollen**).

Wildflower honey is produced by bees foraging mainly on *Compositae* plants.

Honeydew honey (also known as "forest honey") is darker and less sweet than traditional flower honey and it's made from bees that collect and process honeydew. The honeydew is a sugary fluid produced by *Homoptera* (such as aphids and mealybugs), after feeding on plant sap, deposited on leaves, branches and tree trunks.



Methods

8 year old girl with history of allergic rhinoconjunctivitis and recurrent bronchospasm

September 2024 (7 y.o.)

Ingestion of a spoon of
honeydew honey



5 MIN.

- Facial angioedema
- Urticaria
- Stridor and hoarseness



EMERGENCY
DEPARTMENT

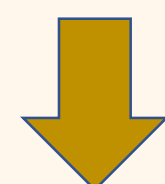
Treatment:

- IV methylprednisolone
- Oral cetirizine
- Nebulized epinephrine

The girl kept on
consuming not
honeydew honey
with no adverse
reactions.

Follow-up visit October 2024

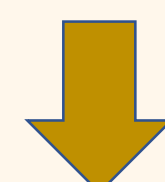
Allergy Unit of Bambino Gesù
Pediatric Hospital



Positive SPTs:
- DP, DF
- Birch
- Alternaria
- Olive
- Plantain



Positive PbP:
- Honeydew
honey



A honeydew-free diet was
recommended and injectable
epinephrine was prescribed.

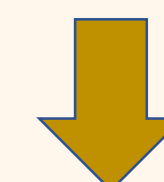
March 2025

Ingestion of **wildflower honey**



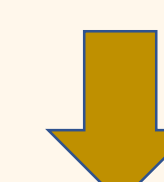
10 MIN.

- Cough and throat constriction
- Facial angioedema



HOME

Treatment: oral cetirizine and CCS



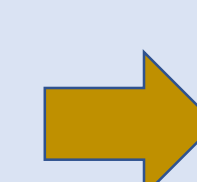
EMERGENCY
DEPARTMENT

Observation only and discharge.

Follow-up visit April 2025

After the last episode (march 2025):

- ★ She tolerated biscuits containing honey
- ★ PbP positive for wildflower honey and chestnut
- ★ SPTs for new inhalants (mugwort, *Poa pratensis*, hazel and cypress) were positive
- ★ Recombinant-allergens test for bee venom allergy resulted negative.



STRICT HONEY-FREE DIET
EPINEPHRINE

Results

The agents involved in honey allergy appear to be pollen proteins (especially *Compositae* family) and bee glandular proteins. The patient experienced anaphylaxis first to honeydew honey, then to wildflower honey, which she had previously tolerated.

This is the first case report in the literature of allergy to honeydew honey.

Given her previous tolerance to wildflower honey and the negative results of molecular testing for bee venom allergy, the triggering agent was unidentified. Between the two episodes, the patient sensitized to new inhalant allergens, including Mugwort (*Compositae*), likely responsible for the second anaphylactic reaction to wildflower honey.

A larger case series would be necessary to get useful data for a better characterization of this type of allergy and to develop an appropriate diagnostic and therapeutic flowchart.