



Urticaria

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WHAT IS URTICARIA ?

1. URTICARIA IS A SUDDEN APPEARANCE OF WHEELS (HIVES) AND IT USUALLY RESOLVES WITHIN 24 HOURS.

2. IT IS CHARACTERIZED BY WEALS OR ANGIOEDEMA (10%) OR BOTH (40%).

3. DERIVED FROM THE PLANT URTICA DIOICA(STINGING NETTLE)





WHAT IS THE WEAL ?

- A WEAL IS A RAISED, SUPERFICIAL, SKIN-COLOURED OR PALE SKIN SWELLING, USUALLY SURROUNDED BY ERYTHEMA (REDNESS) THAT LASTS FROM A FEW MINUTES TO 24 HRS.

- USUALLY VERY ITCHY, IT MAY HAVE A BURNING SENSATION



WHAT IS ANGIOEDEMA ?

- ANGIOEDEMA IS DEEPER SWELLING WITHIN THE SKIN OR MUCOUS MEMBRANES AND CAN BE SKIN COLORED OR RED .**
- IT RESOLVES WITHIN 72 HOURS .**
- MAYBE ITCHY OR PAINFUL BUT OFTEN ASYMPTOMATIC .**

WHO GETS URTICARIA ?

- **ONE IN FIVE CHILDREN OR ADULTS HAS HAD AN EPISODE OF ACUTE URTICARIA DURING THEIR LIFETIME .**
- **ITS MORE COMMON IN ATOPICS**
- **CHRONIC SPONTANEOUS URTICARIA AFFECTS 0.5-2% OF THE POPULATION .**
- **THERE ARE GENETIC AND AUTOIMMUNE ASSOCIATIONS .**



WHAT CAUSES URTICARIA ?

- **WEALS** ARE DUE TO RELEASE OF CHEMICAL MEDIATORS FROM TISSUE MAST CELLS AND CIRCULATING BASOPHILS .
 - THESE CHEMICAL MEDIATORS INCLUDE HISTAMINE, PLATELETE-ACTIVATING FACTOR, AND CYTOKINES .
 - THESE MEDIATORS ACTIVATE SENSORY NERVES, CAUSE VD AND LEAKAGE OF FLUID INTO SURROUNDING TISSUES.
- **ANGIOEDEMA** IS BRADYKININ MEDIATED, NOT HISTAMINE MEDIATED !!

CLASSIFICATION OF URTICARIA :

• URTICARIA IS CLASSIFIED ACCORDING TO ITS DURATION :

ACUTE URTICARIA : LESS THAN 6 WEEKS OF DURATION, AND OFTEN GONE WITHIN HOURS TO DAYS .

CHRONIC URTICARIA : MORE THAN 6 WEEKS OF DURATION, WITH DAILY OR EPISODIC WEALS .

- CHRONIC URTICARIA MAY BE SPONTANEOUS OR INDUCED.

ACUTE URTICARIA

• ACUTE URTICARIA CAN BE INDUCED BY THE FOLLOWING FACTORS, BUT THE CAUSE IS NOT ALWAYS IDENTIFIED.

1) ACUTE VIRAL INFECTION – URTI .

2) ACUTE BACTERIAL INFECTION – DENTAL ABSCESS, SINUSITIS .

3) FOOD ALLERGY (IgE MEDIATED) – USUALLY MILK, EGG, PEANUT SHELLFISH ...

4) DRUG ALLERGY (IgE MEDIATED DRUG INDUCED URTICARIA) – OFTEN ANTIBIOTICS .

4) DRUG INDUCED URTICARIA DUE TO PSEUDOALLERGY – ASPIRIN, NON-SELECTIVE NSAIDs, RADIOCONTRAST MEDIA, THESE CAUSE URTICARIA WITHOUT IMMUNE ACTIVATION .

6) VACCINATIONS .

7) BEE OR WASP STINGS .

CHRONIC SPONTANEOUS URTICARIA:

CHRONIC SPONTANEOUS URTICARIA IS MAINLY IDIOPATHIC, AN AUTOIMMUNE CAUSE IS LIKELY .

CHRONIC SPONTANEOUS URTICARIA HAS ALSO BEEN ASSOCIATED WITH : CHRONIC UNDERLYING INFECTION SUCH AS HEPATITIS, BRUCELLOSIS, H.PYLORI, BOWEL PARASITES, AND CHRONIC AUTOIMMUNE DISEASES .

| FEATURE | ACUTE URTICARIA | CHRONIC URTICARIA |
|----------------------------------|---|--|
| DURATION | LESS THAN 6 WEEKS | MORE THAN 6 WEEKS |
| ONSET | SUDDEN | CAN BE GRADUAL OR INTERMITTENT |
| CAUSE | OFTEN IDENTIFIABLE (E.G. DRUGS, FOOD) | OFTEN IDIOPATHIC OR AUTOIMMUNE |
| WEALS/ANGIOEDEMA | COMMON | COMMON, MAY BE ASSOCIATED WITH ANGIOEDEMA |
| TRIGGERING FACTORS | CLEAR EXTERNAL TRIGGERS | MAY BE SPONTANEOUS OR TRIGGERED |
| ASSOCIATED CONDITIONS | OFTEN WITH RECENT ILLNESS OR ALLERGEN EXPOSURE | AUTOIMMUNE DISEASE (THYROID DISEASE) |
| PROGNOSIS | USUALLY SELF-LIMITING AND RESOLVE QUICKLY | MAY PERSIST FOR MONTHS TO YEARS |

SUBTYPES OF INDUCED URTICARIA

1. SYMPTOMATIC DERMOGRAPHISM .
2. COLD URTICARIA .
3. CHOLINERGIC URTICARIA .
4. CONTACT URTICARIA .
5. DELAYED PRESSURE URTICARIA .
6. SOLAR URTICARIA .
7. AQUAGENIC URTICARIA .





SYMPTOMATIC DERMOGRAPHISM

- IS THE MOST COMMON FORM OF PHYSICAL URTICARIA WITH A PREVALANCE OF UP TO 5-7% .
- IT IS CHARACTERIZED BY ITCHY WEALS THAT OCCUR IN RESPONSE TO FRICTION, FOR EXAMPLE AFTER RUBBING OR SCRATCHING THE SKIN .
- USUALLY LASTS FOR 1 TO 2 HOURS .



SYMPTOMATIC DERMOGRAPHISM



COLD URTICARIA

- A SKIN CONDITION WHERE RED, ITCHY WEALS APPEAR ON SKIN EXPOSED TO COLD TEMPERATURES.
- THESE HIVES ARE REACTION TO COLD AND CAN BE ACCOMPANIED BY SWELLING AND ITCHINESS, SOMETIMES AFFECTING HANDS, FEET, AND OTHER BODY PARTS .
- OFTEN MEDIUM TO LARGE WEALS, AND CAN BE LOCALIZED OR DIFFUSE .

COLD URTICARIA





CHOLINERGIC URTICARIA

- CHOLINERGIC URTICARIA IS A COMMON CHRONIC INDUCIBLE URTICARIA THAT IS CAUSED BY SWEATING.
 - IT IS SOMETIMES REFERRED TO AS HEAT BUMPS .
 - PRESENTED WITH A VERY SMALL (1-4 MM) RED, ITCHY WEALS SURROUNDED BY BRIGHT RED FLARES .
 - USUALLY OCCURS ON THE UPPER CHEST, NECK, AND ARMS BUT IT CAN BE GENERALIZED .
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CHOLINERGIC URTICARIA

- COMMON TRIGGERS :

1. EXERCISE

2. HOT BATHS / SHOWERS (MORE LIKELY DUE TO CHOLINERGIC URTICARIA THAN IT IS AQUAGENIC URTICARIA)

3. FEVER

4. OCCLUSIVE DRESSINGS

5. EATING SPICY FOOD

6. EMOTIONAL STRESS

CHOLINERGIC URTICARIA





CONTACT URTICARIA

- IS AN IMMEDIATE BUT TRANSIENT LOCALIZED SWELLING AND REDNESS THAT OCCURS ON THE SKIN AFTER DIRECT CONTACT WITH AN OFFENDING SUBSTANCE .
- SHOULD BE DISTINGUISHED FROM CONTACT DERMATITIS WHERE DERMATITIS DEVELOPS HOURS TO DAYS AFTER CONTACT WITH THE OFFENDING AGENT !!
- CONTACT URTICARIA IS DIFFERENTIATED FROM ECZEMA IN THAT URTICARIA PRESENTS WITH WEALS WHILE ECZEMA (CONTACT DERMATITIS) PRESENTS WITH SCALES .

CONTACT URTICARIA





DELAYED PRESSURE URTICARIA

- IS A PHYSICAL URTICARIA WHERE ERYTHEMATOUS, OFTEN PAINFUL SWELLINGS OCCUR AT SITES OF SUSTAINED PRESSURE ON THE SKIN, AFTER A DELAY OF SEVERAL HOURS .
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- IT IS PRESENT IN UP TO 40% OF PATIENTS WITH ORDINARY CHRONIC "IDIOPATHIC URTICARIA" TO A VARYING DEGREE .



DELAYED PRESSURE URTICARIA





SOLAR URTICARIA

- IS A RARE CONDITION IN WHICH CAUSED DUE TO EXPOSURE TO ULTRAVIOLET RADIATION (SUN), OR SOMETIMES EVEN VISIBLE LIGHT .
- HIVES CAN APPEAR IN BOTH COVERED AND UNCOVERED AREAS OF THE SKIN .

SOLAR URTICARIA



AQUAGENIC URTICARIA

- VERY RARE.
- ITCHY RASH FROM CONTACT WITH WATER .
- WATER RELATED URTICARIA IS MORE COMMONLY DUE TO CHOLINERGIC URTICARIA, BUT AQUAGENIC URTICARIA IS DISTINCT AND RARELY DIAGNOSED .



CLINICAL FEATURES

- IN CHRONIC INDUCIBLE URTICARIA, WEALS APPEAR ABOUT 5 MINUTES AFTER THE STIMULUS AND LAST A FEW MINUTES OR UP TO ONE HOUR .
- THE WEALS ARE MORE PERSISTENT IN CHRONIC SPONTANEOUS URTICARIA, BUT EACH HAS GONE OR HAS ALTERED IN SHAPE WITHIN 24 HOURS .
- THEY MAY OCCUR AT CERTAIN TIMES OF THE DAY .

CLINICAL FEATURES

- CHARACTERISTICALLY, WEALS ARE :
 - 1.LINEAR IN SYMPTOMATIC DERMOGHRAPHISM.
 - 2.TINY IN CHOLINERGIC URTICARIA .
 - 3.CONFINED TO CONTACT AREAS IN CONTACT URTICARIA .
 - 4.DIFFUSE IN COLD URTICARIA .

How is Urticaria diagnosed ?

- **History and physical examination**

Essential for identifying potential triggers (e.g., drugs, foods, environmental factors)

.Look for systemic symptoms (e.g., fever, joint pain, or malaise)

- **Diagnostic test :**

Suspected Drug or Food Allergy:

- Perform **skin prick tests** or **RAST/CAP** fluoroimmunoassays.

- **Chronic Spontaneous Urticaria**

There is No Routine diagnostic test

Limited to CBC and CRP unless an underlying disorder is suspected .

- **Inducible Urticaria**

Confirmed by provoking the reaction (e.g., scratching the skin or applying an ice cube)

- **Systemic investigation:**

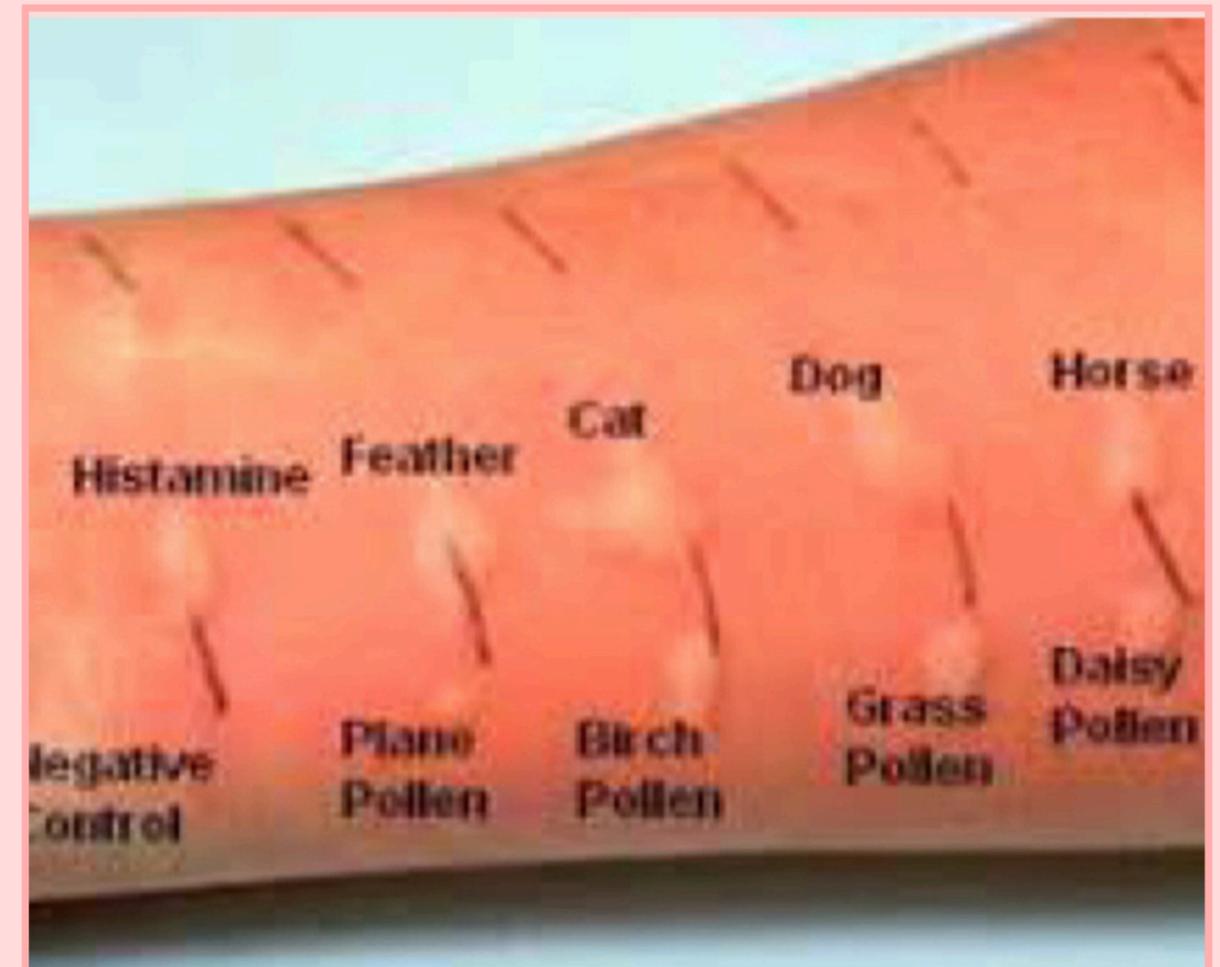
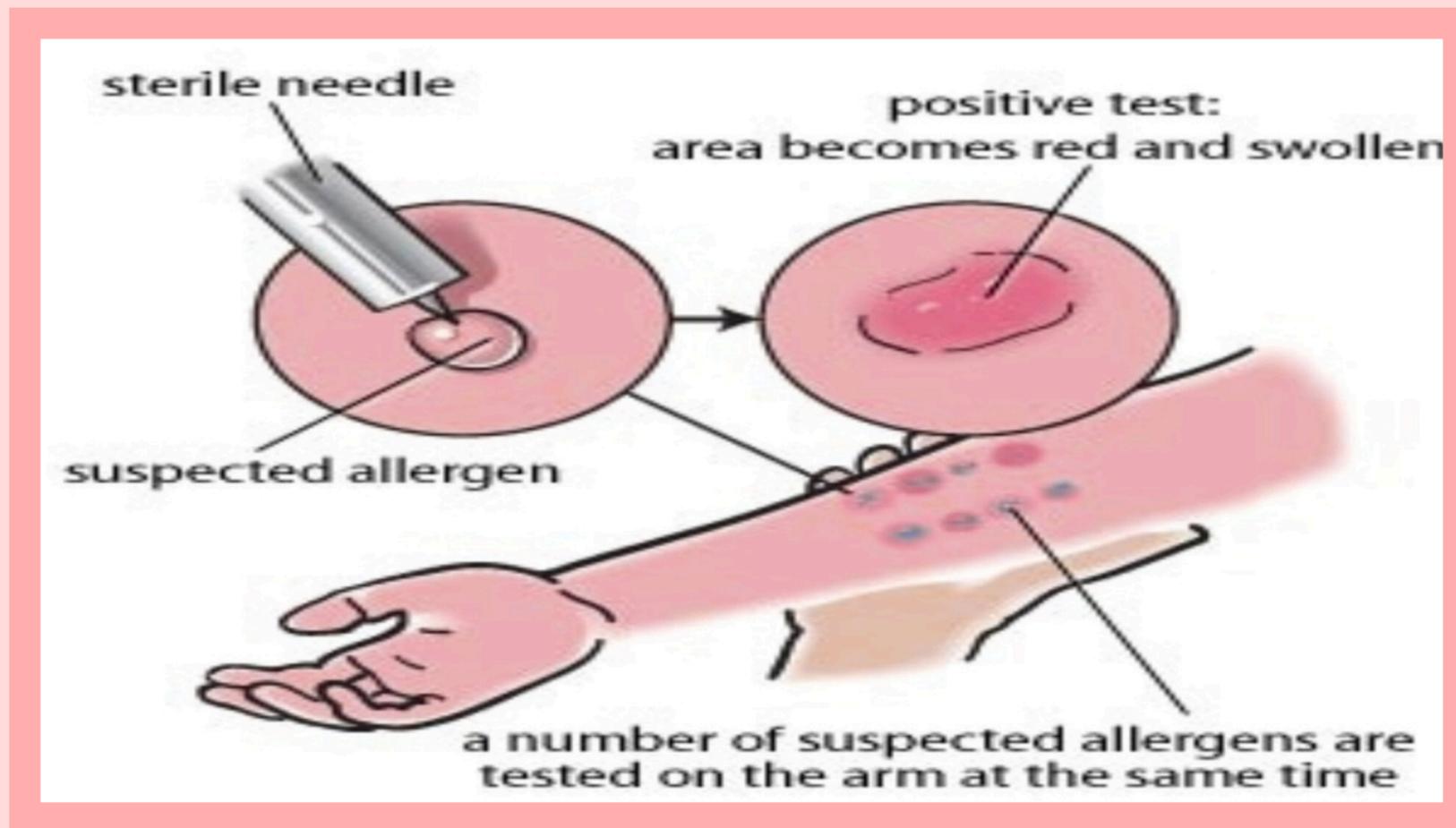
In patients with systemic symptoms (e.g., fever, joint pain), evaluate for systemic
.diseases

How is Urticaria diagnosed?

PATIENTS WITH ANGIOEDEMA WITHOUT WEALS SHOULD BE ASKED IF THEY TAKE ACEI DRUGS AND TESTED FOR COMPLEMENT C4;C1-INH LEVELS, FUNCTION AND ANTIBODIES; AND C1q

BIOPSY OF URTICARIA CAN BE NON-SPECIFIC AND DIFFICULT TO INTERPRET, THE PATHOLOGY SHOWS EDEMA IN THE DERMIS AND VD, WITH A VARIABLE MIXED INFLAMMATORY INFILTRATES

Skin prick test



What is the treatment for urticaria ?

- The main treatment of all forms of urticaria in adults and children is with an oral second-generation anti-histamine (**Long acting**)
 - If the standard dose (eg 10 mg for cetirizine) is not effective, the dose can be increased up to fourfold (eg, 40 mg cetirizine daily)
- They are stopped when the acute urticaria has settled down.
- Conventional first-generation antihistamines such as promethazine or chlorpheniramine are no longer recommended for urticaria: They are short-lasting (allerfin) . They have sedative and anticholinergic side effects. They impair sleep, learning and performance .They cause drowsiness in nursing infants if taken by the mother.

Treatment of acute refractory urticaria

- **If non-sedating antihistamines are not effective, a 4 to 5-day course of oral prednisone (prednisolone) may be warranted in severe acute urticaria.**
- **Intramuscular injection of adrenaline (epinephrine) is reserved for life-threatening anaphylaxis or swelling of the throat.**
- **Long-term systemic corticosteroids are NOT recommended, as high doses are required to reduce symptoms of urticaria and they have inevitable adverse effects that can be serious.**

Indication for admission of Urticarial case :

- **Anaphylaxis**
- **Angioedema threatening the Airway**
- **Systemic involvement / Urticarial Vasculitis**
- **Significant comorbidity**

Differential Diagnosis of urticaria

1- Papular Urticaria



- Chronic hypersensitivity to (insect bites)
- central punctum



2- Mastocytosis



- (*Urticaria pigmentosa*)
- Itchy brown patches or freckles on the skin are due to abnormal collections of mast cells.

3- Urticarial vasculitis

Causes of Urticarial Vasculitis

- Systemic Lupus Erythematosus
- Rheumatoid Arthritis
- Systemic Vasculitis Syndrome
- Reaction to certain groups of drugs
- Cancer
- Infections or viruses
- Glandular issues

For More Information,
Visit: www.epainassist.com



Hidden disease

Urticaria vasculitis :

painful

persist > 24 h

VS

Other Urticaria :

painless

persist < 24h

SAVE
GAZA



{وَمَا كَانَ رَبُّكَ نَسِيًّا}