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Department of Health Research
Ministry of Health and Family Welfare, Government of India

Standard Treatment Workflow (STW)

URTICARIA AND ANGIOEDEMA

ICD-10-L50.9

URTICARIA-CLINICAL APPEARANCE

- **Urticaria** -sudden appearance of wheals, angioedema, or both
- **A wheal**- A sharply circumscribed superficial central swelling of variable size and shape, surrounded by reflex erythema
  - Associated with itching / burning sensation and of fleeting nature- resolves within 1–24 hours
  - Chronic urticaria implies duration for more than 6 weeks
- **Angioedema**
  - Sudden, pronounced, erythematous or skin-colored swelling of lower dermis and subcutis with frequent involvement of mucous membranes
  - Associated pain, rather than itching /resolution is slower and can take up to 72 hours

CLASSIFICATION OF CHRONIC URTICARIA SUBTYPES
(presenting with wheals, angioedema, or both)

Chronic spontaneous	Inducible (mostly physical)
• Spontaneous appearance of wheals, angioedema, or both for ≥6 weeks	• Symptomatic dermographism • Delayed pressure urticaria • Cholinergic urticaria • Cold/Heat urticaria • Solar urticaria • Aquagenic urticaria • Contact urticaria

HISTORY

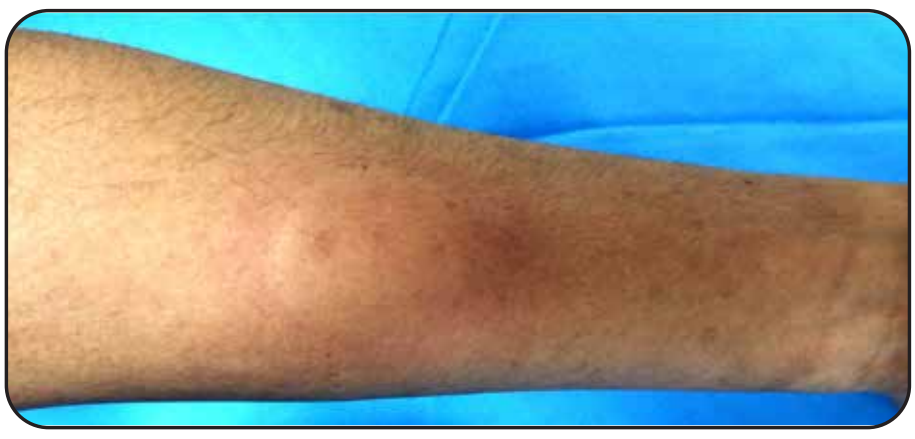
- Time to onset
- Frequency / duration
- Diurnal variation
- Associated angioedema
- Associated pain, itch
- Induction by physical agents or exercise
- Family history
- Previous allergies
- Surgical implantations
- Gastric / intestinal problem
- Drug history
- Correlation with food
- Correlation with menses
- Smoking
- Work profile
- Hobbies
- Stress
- Quality of life impact
- Response to therapy

EXAMINATION

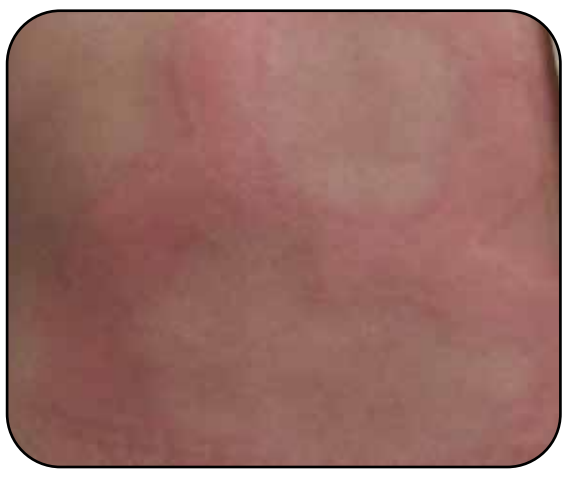
- Due to evanescent nature the examination may not show any lesions
- Presence of wheals of various sizes and shapes
- The lesions are non-scaly but show an intense erythema and a trailing clearing region in older areas which may lead to a target configuration in expanding plaques

DIFFERENTIAL DIAGNOSES OF URTICARIA

- Insect /Bedbug bites
- Urticarial vasculitis- painful, persist for 24-48 hours and fade to leave bruising; ± fever and arthralgia
- Pre bullous phase of bullous pemphigoid
- Maculopapular drug/ viral rash



URTICARIA



URTICARIAL VASCULITIS

INVESTIGATIONS

INVESTIGATIONS

Generally, no investigations are needed to confirm the diagnosis

- Skin biopsy may be indicated if other diagnoses are being suspected
- C4 and C1 inhibitor quantitation to detect C1 inhibitor deficiency may be done in suspected hereditary angioedema (Angioedema without urticaria)
- Tests for current or past viral, bacterial or parasitic infections should be guided by history and clinical findings
- Lab tests may be needed if patient is planned for immunosuppressive treatment
- **Certain investigations that are often ordered, but are of limited utility**
  - Thyroid function tests and antithyroid peroxidase (TPO) antibodies
  - Autologous serum skin test (ASST)
  - Skin prick / specific IgE test

GENERAL PRINCIPLES

- Reassure -remits spontaneously in 12-24 months in ~50% patients
- Treat with antihistamines. Reassure that prolonged treatment with long-acting, non-sedating antihistamines is not harmful
- Non-sedating antihistamines (e.g. Cetirizine 10mg, Levocetirizine 5mg, Loratadine 10mg, or Fexofenadine 180mg once daily) mainstay of treatment. Dose can be increased 4-fold safely if needed
- Long-term first generation antihistamines e.g. Chlorphenamine, Hydroxyzine avoided if possible due to risk of sedation and psychomotor impairment
- Avoid triggers including drugs such as NSAIDs, PCM, ACE inhibitors if history is suggestive of drug induced or exacerbated urticaria/ angioedema

TREATMENT

TREATMENT OF URTICARIA/ANGIOEDEMA* AT PRIMARY CARE LEVEL

First Line:
2nd generation non-sedating antihistamines

↓ *If symptoms persist after 2 weeks*

Second Line:
Increase dosage (upto fourfold) of 2nd generation antihistamines

↓ *If symptoms persist after 2–4 further weeks*

Refer to higher centre

- Severe urticaria with respiratory distress- maintain airway; injectable Hydrocortisone and Pheniramine (Avil) may be required
- Intra-muscular Adrenaline of 1:1000 dilution (1 mg in 1 mL), 0.2 to 0.5 mg (0.01 mg/kg in children; maximum dose: 0.3 mg) administered intramuscularly every 5 to 15 minutes if choking/respiratory distress/shock

** Angioedema with respiratory or laryngeal symptom requires emergency management -refer to higher center after vital stabilization; oral Prednisolone may be initiated to take care of biphasic response*

REFER TO A HIGHER CENTRE

- Patients whose urticaria is difficult to control with antihistamines despite fourfold higher dosage than the licensed doses of Cetirizine, Levocetirizine or Fexofenadine
- Patients with polypharmacy
- Unusual urticaria e.g. long lasting lesions >24-48 hours with bruising
- Associate angioedema that is unresponsive or presents with choking/ dyspnoea
- Investigations not available

MANAGEMENT AT SECONDARY CARE LEVEL

First Line:
2nd generation antihistamines

↓ *If symptoms persist after 2 weeks*

Second Line:
Increase dosage (upto fourfold) of 2nd generation antihistamines

↓ *If symptoms persist after 2–4 further weeks*

Add third line on to second line:
Cyclosporine A (3-5 mg/Kg) or Montelukast (10 mg HS)
Short course (max 10 days) of corticosteroids
(Prednisolone-0.3-0.5 mg/kg)#

MANAGEMENT AT TERTIARY CARE LEVEL

First Line:
2nd generation antihistamines

↓ *If symptoms persist after 2 weeks*

Second Line:
Increase dosage (upto fourfold) of 2nd generation antihistamines

↓ *If symptoms persist after 2–4 further weeks*

Third line:
Add on to second line Omalizumab (300mg s/c every 4 weeks)
or Cyclosporine A or Montelukast
Short course (max 10 days) of corticosteroids #

#Oral or injectable conticosteroids are generally not used, except in uncontrolled disease or with associated respiratory symtoms

URTICARIA TREATMENT GOAL IS DISEASE REMISSION-NOT CURE

This STW has been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory, and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit the website of DHR for more information: (**stw.icmr.org.in**) for more information.