

# REACTIVE ERYTHEMA and URTICARIA

**Erythema** : reddness of the skin due to dilatation of superficial blood vessels near surface of skin & it can be blanched by pressure

Types :

1- **Erythema Multiforme** :

It is a self limiting , usually mild, relapsing allergic reaction of the skin, clinically characterized by :

- target shaped maculopapules ,
- frequently there is mucous membrane involvement

Aetiology :

1- Infection : mostly due to :

A - Viral most commonly due to HSV & Orf

B - Bacterial infection : mycoplasmal infection

C - Parasitic e.g : Leishmaniasis

2- Drug reaction

3- Pregnancy

4- food & food additives

5- Carcinoma, lymphoma and leukemia

### *Clinical pictures :*

In addition to the target lesion ( iris - shaped ) ,other lesions may be macular, papular, vesiculo-papular , purpuric, bullous .

( which is usually preceded by HSV 7- 9 days ago )

Site : acral, upper face, upper trunk. and the mucous membrane are often involved mildly & it is called ***EM minor*** .

If more than one mucous membrane are involved & severely involved & > 10% body & there is no typical target lesion and the patient is toxic & the skin is scalded & easily sloughed ( i.e.

Nikolisky sign is positive )

- Mortality rate here is high
- the cause is usually drugs
- the latter is called ***EM major*** ( Stevens - Johnsons)



DOIA

(c) University Erlangen,  
Department of Dermatology  
Phone: (+49) 9131- 85 - 2727



DOIA

(c) University Erlangen,  
Department of Dermatology  
Phone: [+49] 9131-85-2727





DOIA

(c) University Erlangen,  
Department of Dermatology  
Phone: [+49] 91 31 - 85 - 2727





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## ERYTHEMA MULTIFORME MINOR

- ↳ Milder condition
- ↳ Almost always triggered by preceding infection
- ↳ Causes targetoid lesions on palms & soles
- ↳ Lesions are symmetric & spread → trunk
- ↳ Only 1 type of mucosa (usually oral) invo

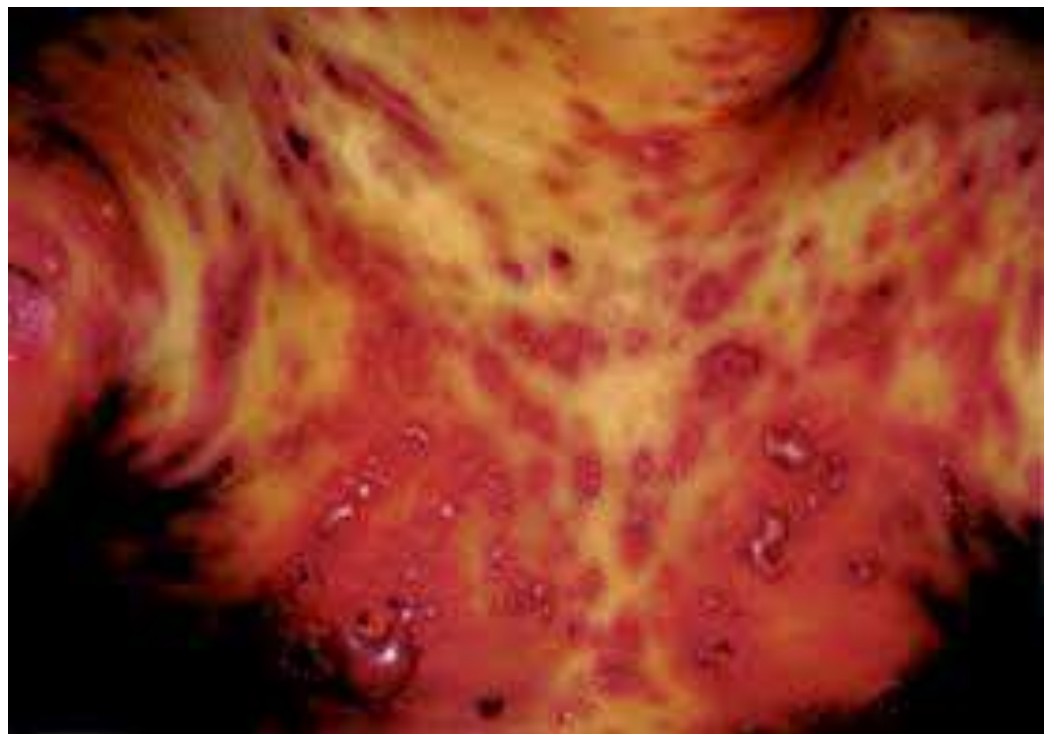


If - more than one mucous membrane are involved & severely involved & > 10% body & there is no typical target lesion and the patient is toxic & the skin is scalded & easily sloughed ( i.e. Nikolyksi sign is positive )

- Mortality rate here is high
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Rx: of EM minor :

- 1- Rx of underlying condition
- 2- systemic steroids
- 3- antihistamines





## Erythema multiforme



- < 10% TBSA
- Most common on hands/forearms
- Target lesions
- Oral lesions (50%)

## Stevens-Johnson syndrome



- <10% TBSA
- Most common in children
- URI-like prodrome
- Most due to drug reactions
- $\geq 2$  mucosal sites
- Admit to Burn Center

## Toxic epidermal necrolysis



- > 30% TBSA
- Most common in elderly
- HIV individuals with increased risk
- Abrupt onset
- Positive Nikolsky sign
- Mucous membrane involvement
- Admit to Burn Center

## **Erythema Nodosum :**

it is a reactive cutaneous disorder characterized by bilateral, reddish , tender nodules on the shins & sometimes forearms

### **Aetiology :**

It is a septal panniculitis reactive to many problems :

- 1- Infection: streptococcol , TB
- 2- pregnancy
- 3- Drug reaction. CCP , sulfa,,, etc
- 4- Inflammatory bowel disease
- 5- Carcinoma , leukemia

- Rx
- 1- of underlying abnormality
  - 2- NSAID especially indomethacin
  - 3- steroids ( systemic ) prednisolone 20 - 40 mg
  - 4- Dapsone, colchicine .





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# Urticaria :

It is a vascular reaction of the skin characterized by the appearance of **wheals** which is elevated ,erythematous, oedematous plaques, associated with severe itching or pricking sensation of various shapes & sizes, involving any site of the body & each lesion usually **lasting less than 24 hours** .

We have 2 types :

1- **Acute** : disease duration < one month

2- **Chronic** : disease duration > one month

**Aetiology** : many in's :

infection , infestation , ingestion ( food ) , injection ( drug)

inhalation , insectation

## **TREATMENT :**

1- Rx of underlying problem

2- Anti histamine : either

    First generation ( Sedative) e.g. chlorpheniramine

    second generation ( low sedation ) e.g. Loratidine, cetirizine

3 - steroids ( systemic)

4- local antipruritic e.g. calamine lotion

Urticaria may be associated with angioedema

Variants of urticaria : ( ***physical*** urticaria ) :

1- **Dermographism**: it is a wheals ( linear) caused by strocking the skin i.e. Red Dermographism .

2- **Cholinergic Urticaria** : characterized by minute highly pricking pruritic points involving any site of the body & sometime associated with small erythematous papules lasting 30 - 90 min .  
Induced by stress, excersize , change in the temperature

3- **Cold Urticaria** :  
development of of wheals mainly in exposed site to cold exposure

4- **Pressure Urticaria** :  
after being subjected to pressure e.g. at the site of e tight belts , stockings etc .



# Angioedema :

it is acute , deep diffuse oedema affecting the most distensible tissues e.g. eyelids, lips .mouth, genitalia .. etc there is a risk of laryngeal oedema

We have several types : -

-- **Allergic anigoedema** : considered a deep form of urticaria may be alone or in combination with urticaria and pruritus is a significant feature.

-- **Complement angioedema** : is not found not associated with urticaria &r due to C1 esterase inhibitor deficiency and we have 2 types :

Hereditary

Acquired

-- Drug induced e.g. ACE-1 inhibitors and it is due increased level of bradykinin

Rx : . replacement with fresh frozen Plasma, Tranxamic acid



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DOIA

(c) University Erlangen,  
Department of Dermatology  
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Figure 15-4 Cholinergic urticaria Small urticarial papules on red skin (axon reflex erythema) occurring on the neck within 30 minutes of vigorous exercise.





(c) University Erlangen,  
Department of Dermatology  
Phone: [+49] 9131-85-2727





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# Angioedema

↪ Edema of cutaneous and subcutaneous tissue secondary to capillary dilation



## Clinical

- Painless, nonpruritic, nonpitting edema of skin
- May affect abdominal organs and upper airway

## Types of Angioedema

<b>Hereditary</b>	Deficiency or dysfunction of C1-esterase inhibitor	Replace C1-esterase inhibitor*
<b>Acquired</b>	Deficiency or dysfunction of C1-esterase inhibitor	Replace C1-esterase inhibitor*
<b>Drug-induced (ACE-I, ARB)**</b>	Increased levels of bradykinin	Supportive care

\*Fresh frozen plasma or other recombinant formulations

\*\*ACE-I (angiotensin converting enzyme inhibitor), ARB (angiotensin receptor blocker)

## Management

- Supportive, prophylactic airway management
- Administer standard anaphylaxis therapy (unlikely to be effective)
- Fresh frozen plasma (to replace C1 esterase)