

Eruptive syndrome

Eruptive syndrome

The rash is a **symptom**
correctly interpreted

Rapid diagnosis = > correct
therapeutic conduct

The rash pathogenesis

Mechanisms of the **eruption**:

- Local pathogen multiplication:
Herpes simplex virus infections
- Bacterial toxin effect on the skin:
scarlet fever toxin
- Local inflammatory process
involving neutrophils and
lymphocytes: Staphylococcal
folliculitis
- Vascular obstruction and local
necrosis or vasodilation and
hyperemia
- Extravasation of blood: purple

Important:

The invasion of microorganisms in skin

=>

- Pustular local infectious process
(pyogenic infections) or
- Nodular local infectious process
(**fungal** infection , parasites).

Morphological type

- **The patch** - a splash of color other than the skin (red , pink , amber , white) that are **not palpable**.
Ex : rubella - pink patch patches , round or oval .
- If the injuries confluence = >plague **posters** all flat , but **palpable** .
- **The papule** - a higher area of the skin plane
- If the dimensions are larger, papule becomes **node** (candida sepsis , cryptococcal, atypical tuberculosis).
- **Maculopapular** skin lesions (measles , scarlet fever)



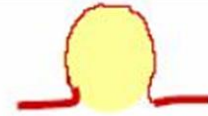
Mácula



Pápula

Morphological type

- **Erythema nodosum** -nodules of variable diameters, up to a few inches, most commonly the front of the legs.
- **The vesicle** is a circumscribed lesion which **projects above the skin**, which has a fluid content .
- > 5 mm = > **bullae(bubble)**. Ex chickenpox, herpes
- **The pustule** is similar in structure to the vesicle but its content is the **purulent exudate(pus)** .
- **Purpura and petechiae** are small lesions containing extravasated blood
- > 3 mm = **bruising(hematoma)**.
- !!!!! Severe Gram -negative infections (meningococcus) or viral eruptive infections.
- **Diffuse erythema** –scarlet fever, Kawasaki disease, Stevens-Johnson syndrome, toxic shock syndrome .
- - Followed by peeling the flaps .



Vesícula



Pústula

Diagnosis ERUPTION

Clinical examination

- The size, shape, color
- The sensation that occurs on skin palpation (smooth , velvety , rough) ;
- Isolated and prone to centralising
- Generalized or localized
- Mucous – enanthema
- + / - Infectious toxic syndrome
- + / - Lymph nodes, spleen, liver

Anamnesis

- Place and time in which they appeared
- Manner of expansion
- Associated phenomena (itching, burning, tingling)
- Epidemiological outbreak, sexually transmitted infection, immunosuppressive treatments, associated diseases: valvular disease, allergic diseases etc.
- Immunization

Maculopapular Eruptions

- Measles
- Rubella
- **Rozeola infantum**
- Infectious erythema (parvo virus B₁₉ type)
- Cocksackie , Echo, cytomegalovirus
- Immune-mediated diseases
- Syphilis - the eruption with varied morphological expression

Measles

Febrile prodrome

- *catarrhal phenomena* = 3-7 days .
- The fever tends to decrease at the end of the prodrome that is then followed by another ascent thermal announcing the entry status or eruptive period .
- *Maculopapular first elements* usually appear overnight and the next day ,are located *BTE(behind the ear)at the edge of hair, on the face and neck* and evolve downward on the trunk and on the proximal part of the limb in 2-3 days
- day 3-5 = *generalized*.
- Rash remission = > in the order they were installed , the lesions are replaced by a brown pigmentation approx. 7 days = retrospective diagnosis
- + / - Fine scaling

Measles

- maculopapular elements have red color
- Disappear at finger pressure
- Fast centralising in plaque posters separate areas of skin of normal aspect.
- On Inspection=Skin sprinkled or geographical map.
- On Palpation = smooth, velvety



Measles

- " *whining facies* " of the child: conjunctival congestion with lacrimation , nasal catarrh with watery or sero – mucous rhinorrhea .
- Oral exam : **Koplick sign** =appears in the last 1-2 days of prodrome, persist for 1-2 days in during state and is represented by *small white papules* , resembling with *grains of semolina* , *surrounded by congestive halo and located on the jugal mucosa* (and sometimes gingival)near to the upper right last molar.



- In an attempt to remove these papules with spatula, if it insists, local bleeding occurs.

Measles

- Heavily congested throat
- Hypertrophic tonsils
- On the oral mucosa = enanthema .
- Lymphadenopathy (laterocervical more frequently, and generalized) .
- Sometimes- splenomegaly / hepatomegaly and (even acute process of hepatocytolysis self-limited)

Rubella

- Is a disease of childhood that can affect adolescents and young adults.
- Rubella virus infection often hidden.
- The complete form of the disease:
 - Macular rash or maculopapular rash, congestive, pinkish
 - Round or oval eruptive elements with weak tend at the confluence , separated by areas of normal looking skin.
- On palpation, feeling the skin is smooth, velvety.
- The rash appears first on the trunk and quickly ***it becomes generalized in a few hours*** and it grows 2-3 days
- Sometimes installation is ***similar to the eruption of measles***, elements appearing first on the face and down the neck, thorax and abdomen, but in these cases generalization is made on the same day .

Rubella

- The *eruptive period* may be preceded by a *nonspecific onset* - 1-2 days with minor symptoms that suggests a benign viral disease.
- Frequently, the eruption appears suddenly in full health, without prodromal symptoms.
- Rubella is usually *not accompanied by high fever*, the child's presenting *low grade fever* and adults temperatures around 38°C.
- An important clinical sign is **the lymphadenopathy** that can involve all superficial groups of lymph nodes.
- The increase in volume of suboccipital and BTE lymph nodes is pathognomonic.
- It should be noted that *the lymphadenopathy precedes the eruption with 6-7 days and persists 3 weeks after*.

The scarlet fever

- The eruption is **micro-papular**, the eruptive elements being the size of a pinhead and being located on congestive background.
 - *The skin is rough to the touch* , between the eruptive zones, skin is not looking healthy.
 - After a short onset, 12-72 hours, characterized by **high fever, sudden headache, vomiting** (one or more than one time), **congestive rash usually appears on the neck and upper chest.**
 - The eruption is generalized within a few hours, but does not cover the face
-
- The rash of scarlet fever disappears quickly after starting treatment with penicillin. Untreated, the condition of scarlet fever lasts 5-7 days, and *the convalescence* is characterized by *peeling in strips, or flaps, even in the " glove finger "*. After the introduction of antibiotic therapy, *recovering from scarlet fever* is marked by *fine peeling*, more frequent in the mentonier and perioral zones, neck or extremities.



Maculo-papular rashes

Scarlet fever

- In scarlet fever it is **characteristic facies**, having a mask aspect (**Filatov mask**) or " **slapped face** " *cheekbones are intensely bloodshot, contrasting with the pale skin surrounding the mouth and nose; skin congestion on the chin and lips intensely carmine-coloured.*
- The eruption is **better expressed on the chest and abdomen and on the limb flexion zones. On the plicae**, amid the congestive eruption **ecchymotic lines** also known as "**the sign of Grozovici-Pastia**" will appear.



Maculo-papular rashes

Scarlet fever

- **The angina from scarlet fever** is the same as bacterial angina: pharyngeal congestion is intense and well defined resembling a half a circle formed of the anterior pillar muscle ("**angina on fire**"). It has been compared to the raw beef aspect.
- *The tonsils= Hypertrophic tonsils, congested, with follicles or purulent deposits.* On the palatal mucosa can be seen some petechiae.
- On the onset and furthermore in the condition period, *regional lymphadenopathy laterocervical and submandibular* appear increased in volume, mobile and painful spontaneous or at palpation.



Maculo-papular rashes

Scarlet fever

- Lingual phases completes clinical picture of scarlet fever.
- *The tongue is white, saburral, "**porcelain-like**" (the onset) ; then it starts to peel off from the tip to the base forming the lingual "V" with opening to the pharynx ; day 3-4 from the onset, the tongue is completely peeled which is called "**raspberry tongue**". At the end of the condition state the tongue is starting to reepithelialize gaining a polished appearance.*
- This lingual phase is not characteristic to scarlet fever, it can be found in Kawasaki disease and toxic shock syndrome.



Maculo-papular rashes

Kawasaki disease

- Also known as atypical scarlet fever ,the rash evolves with **generalized congestive eruption,lymphadenopathy, fever.**
- *Periorificale peelings are noted and on the extremities and trunk the peeling is in flaps.*
- **Visceral complications** are quite common and can be explained by the fact that from the pathogenic point of view,both the eruption as well as the damage on various organs (heart, kidney, liver , lung) occur through the process of **acute generalized vasculitis.**

Maculo-papular rashes

Adenoviral disease

- Can take the **clinical appearance of scarlet fever** , but patients show in this case the **rash on the face**.
- However, adenoviral infections can **sometimes** cause **Rubella-like rash** and **rarely Measles-like rash..**
- A **good clue** we can obtain at *the oral exam* that detects –**viral angina with redish pharynx congestion** , **poorly demarcated by normal aspect of palatal mucosa**.
- On the posterior pharyngeal wall can easily be seen **2-4 mm round or oval vesicles without ulceration**.
- The lymphadenopathy can be generalized.

Maculo-papular rashes

=//=

- Infectious disease with ***Echo*** or ***Coxsackie viruses***
- ***Mononucleosis infection with*** Epstein Barr virus or mononucleosis syndrome with cytomegalovirus
- ***Primary AIDS infection***
- ***Late stages of AIDS***

Maculo-papular rashes

=//=

- *Secondary Syphilis*
- *Leptospirosis*
- *Typhoid fever*
- *Allergic rashes*
- *Erythema nodosum*

Vesicular rashes

Varicella(chickenpox)

- The rash is widespread, polymorphic, consisting of **patches, papules and vesicles disseminated all over our body, on the skin and mucosa.**
- *The exanthema extends to the palms, plants and hairy skin of the head.*
- Although the rash is widespread, it keeps a centripetal character; most eruptive elements are located on the trunk and limbs(in the proximal areas).
- During the onset of chickenpox, patients may experience a transient rash like in Rubella and Scarlet fever.
- Most often *prodromal stage is missing*, first it appears the fever, then the eruptive lesions.
- Consecutive they appear **more eruptive waves**, which explains the polymorphism of chickenpox rash.
- In addition, the evolution of each eruptive element is random, the time in which the macula and papule turns it into vesicle being different.
- Also, not all the eruptive pass through these stages of development, some stopping at the macula or papule other macula transcending from the vesicle.

Vesicular rashes

Varicella(chickenpox)

- The vesicles **are round or oval** , having a diameter of **2-4 mm** and **surrounded by a congestive halo**.
- They are very superficial.
- Blisters contain a clear fluid, which is why they were likened to the dew-drops.
- The blisters walls becomes thick, fill with opalescent content, and then appears a central point of depression (umbilical cord).
- That starts the crust to form. Crust disappear in 8-10 days after leaving an area of unpigmented skin.
- If blisters appear on mucous membranes (conjunctival, oral, genital), they have a tendency to rapid ulceration and increased risk of bacterial or fungal overgrowth (candida).



Vesicular rashes

Herpes Zoster(Shingles)

- Caused by the same virus as chickenpox, but appears as a *skin lesion that can occupy part or all of the dermatome. The rash preceded by local burning or prickling and neuralgic pain.* The rash convert to round patches that turns into clusters of blisters located on erythematous background. The unilateral rash area is well defined by the longitudinal axis of the body. In terms of immune depression (AIDS, lymphoproliferative diseases, immunosuppressive drugs) eruption zone can generalize and indulge in confusion with chickenpox.
- **Cutaneous herpes.** Injuries occur most frequently *between the skin and mucosa* and preceded by local *itching or burning sensation.* Erythematous macula becomes blisters. The most common localizations are perioronazal, genital, nail infection with herpes virus. If herpes infection occurs in newborn after contamination through the birth canal of the mother with genital herpes or if infection occurs in people with immune-deficiency cellular severe (AIDS, leukemia), systemical illness is particularly severe in various organs (herpetic encephalitis , herpes hepatitis, myocarditis).
- *It should be noted that both the cutaneous and herpes zoster are manifestations of a latent infection that become acute repeated under certain conditions.*

Vesicular rashes

Coxsackie virus

- Certain types of *Coxsackie viruses* may cause some vesicular exanthema .
- Among these is the **mouth, hands and foot** disease caused by Coxsackie virus A type 16 that manifests with *mild fever, dysphagia due to appearance on the oral mucosa of 3-8 mm diameter red patches and then blistering white.*
- Skin lesions are represented by red patches that turn into blisters and ulcerate but they have developed positively, with healing in 7-10 days.

Recognize the eruptive
syndrome:









1. Measles
2. Varicella(chickenpox)
3. Scarlet fever