

Lec. 4A | VIRAL INFECTIONS

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Viral infections of the skin

- **Herpes Virus Group:** Herpes simplex - Chicken pox - Herpes zoster
- **Human papilloma virus:** Warts
- **Pox virus:** Molluscum contagiosum

High-Yield

From past exams

1.

Herpes Virus Group

Herpes simplex

AE:

- HSV1 → skin and mucous membrane.
- HSV2, HSV1 (less common) → genital area.



Mode of infection: direct contact with mucosal tissue or secretions of infected person

Clinical picture: multiple, painful vesicles

Pathogenesis:

- **Primary infection** Primary H.S. → Subside → Latency (virus dormant in sensory ganglia).
- **Reactivation** of dormant virus by **Triggering factors**

- **Minor trauma, Emotional stress, UV radiation., Menstruation., Infection, GIT disturbance.**
- **virus travels along axon of sensory N. → Skin → Recurrent H.S.**

Primary Herpes Simplex

- Usually **subclinical** (90%).
- **Age:** mainly in infant & young children (2-5 years).
- **Constitutional symptoms:** fever and malaise.
- **Vesicles:** Large - No grouping.



Recurrent Herpes Simplex

- Less severe than primary HS.
- **Constitutional symptoms:** absent
- **Vesicles:** Smaller in size, grouped on erythematous base.



Clinical Types of Herpes Simplex

- Herpes labialis).
- Herpetic gingivostomatitis
- Herpes genitalis.
- Herpetic keratoconjunctivitis
- Inoculation herpes simplex (**Herpetic whitlow**)
- Eczema herpeticum (**Kaposi varicelliform eruption**)
- Neonatal herpes simplex

Herpetic gingivostomatitis



Herpes labialis



Herpetic Keratoconjunctivitis



Herpes genitalis



Inoculation herpes S. (Herpetic whitlow)



Neonatal herpes simplex



Eczema herpeticum (Kaposi varicelliform eruption).



Treatment of Herpes Simplex

Topical	Systemic
<ul style="list-style-type: none"> ✓ Drying lotion (e.g. alcohol) (Vesicular stage). ✓ Antibiotic. ✓ Antiviral (acyclovir). 	<ul style="list-style-type: none"> ✓ Only in severe cases. ✓ Antiviral (acyclovir, valacyclovir, famciclovir).

Chicken pox and herpes zoster

AE: Varicella Zoster virus

Primary infection → chicken pox

- Subsidence
- Latency

Reactivation of latent virus → Herpes Zoster

chicken pox (Varicella)

Age: mainly Children between 2-10 years.

Mode of transmission: Droplet infection- Direct contact.

Constitutional symptoms: fever, malaise, headache usually precede the rash.

Mild pruritis.

Eruption:(Polymorphic)

Macules → papules → vesicles → pustules → crusts

Distribution: (centripetal) mainly Trunk, face, oral mucosa.

One attack → permanent immunity.

Infectious period:

- × 2 days before & 5 days after appearance of the eruption.
- × or until all the lesions have formed crusts

Treatment of Chicken Pox:

Symptomatic

- Antipruritic lotion (e.g., Calamine lotion).
- Antihistaminic.
- Topical and systemic antibiotics (for 2ry infection)
- **Systemic antiviral therapy:** (Acyclovir, valacyclovir, or famciclovir)
 - Immunocompromised
 - Infection in adults.
 - Severe cases



Herpes Zoster (shingles)

Age: Mainly in elderly, immunocompromised.

Constitutional symptoms: Absent.

Pain ----- 1st manifestation

Skin lesions: Grouped vesicles on an erythematous base.

Distribution:

strictly unilateral. Along the course of sensory N. (Thoracic, cervical, trigeminal, lumbosacral dermatomes).

Lymph node: enlarged and tender.

Recurrence: very rare



Complications:

- ✗ Post herpetic neuralgia (↑3 months)
- ✗ Encephalitis
- ✗ Facial palsy
- ✗ 2ry Bacterial infection

Treatment of Herpes Zoster

- **Topical:** antiviral
- **Systemic:** Antiviral drugs (acyclovir, valacyclovir, famciclovir).
- **Treatment of pain: Analgesic.**
 - **Systemic:**
 - gabapentin (anticonvulsant) (most effective)
 - tricyclic antidepressants
 - **Topical capsaicin, topical lidocaine.**

Rapid administration of acyclovir (within 72 hours or while new lesions are erupting) is the best for decreasing the risk of postherpetic neuralgia.

Herpes Simplex	Herpes zoster
Herpes simplex virus	Varicella zoster
Bilateral	Unilateral
Recurrent	No recurrence
No pain	Neurologic pain
Along orifices	Along sensory nerves

Human papilloma virus

Warts (Verrucae)

AE: Human papilloma virus (DNA virus)

Age: Common in children and young adults

Mode of infection: Direct or Indirect contact with infected person.

Clinical types of warts

1. Common warts.
2. Plane warts.
3. Filiform warts.
4. Digitiform warts.
5. Planter warts.
6. Anogenital warts (condylomata acuminata)

1. Common warts.



- Dorsal aspects of hands and fingers.
- 1mm - > 1cm,
- Firm papules, hyperkeratotic
- Single or multiple, Painless,

2- Plane warts (flat warts)

"Face and Dorsa of hands, Slightly elevated, flat, skin-colored papules, smooth surface. 1- 5 mm. Painless, Multiple"



3-Filiform warts

- Skin colored, long, thin, slender
- Painless.
- Single or multiple



4- Digital warts

- Scalp, face.
- Painless
- Single or multiple
- Finger like growth



5-Plantar wart

- Sole, at pressure points.
- Rounded with Rough, keratotic surface,
- slightly elevated.
- Solitary or multiple
- **Painful**



6-Anogenital warts (Condyloma accuminata)

- Transmission by sexual contact
- Soft or verrucous papules, coalesce → cauliflower like-mass.
- **Linked to cervical carcinoma.**



Treatment of warts

1-Chemical treatment:

- a) **salicylic acid** 15-20%, lactic acid.
- b) **Adhesive plaster:** 40% salicylic acid for plantar warts.
- c) **Formalin** 2-3 % for plantar warts.
- d) **Podophyllin** 10-25% for anogenital warts.

2- Electrocautery:



3- Cryo-therapy: Liquid nitrogen /CO2



4- Laser therapy: CO2 laser.



Pox virus

Molluscum Contagiosum

AE: Pox virus (DNA virus).

Mode of transmission: direct contact

Small, discrete, smooth, skin colored, umbilicated

Treatment

- ✗ Spontaneous disappearance may occur.
- ✗ Expression of the contents of the papule by squeezing it with forceps.
- ✗ Curretage and diathermy.
- ✗ Cryotherapy
- ✗ Laser.

