

Herpes Zoster (Shingles) Clinical Features and Vaccine

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Herpes Zoster (Shingles)

- Reactivation of varicella zoster virus
- Associated with:
 - aging
 - immunosuppression
 - intrauterine exposure
 - varicella at younger than 18 months of age

Herpes Zoster (Shingles)

- 500,000 to 1 million episodes occur annually in the United States
- Lifetime risk of zoster estimated to be 32%
- 50% of persons living until age 85 years will develop zoster

Clinical Features

- Pre-eruptive phase: pain, itching, tingling
 - May be accompanied by malaise, myalgia, headache, fever
- Eruptive phase: painful rash in a single dermatome
 - Rarely crosses midline
 - Begins as a red maculopapular rash
 - Quickly develops into vesicles
 - May coalesce into bullae
 - Crusts after 3-5 days
- Healing over 2-4 weeks

Clinical Features – Rash



Image courtesy of Centers for
Disease Control and Prevention

Complications

- Postherpetic neuralgia
- Ophthalmic zoster
- Ramsay-Hunt syndrome
- Disseminated zoster

Postherpetic Neuralgia

- Persistent or recurring pain \geq 30 days after all lesions have crusted
- Deep burning, aching, or electric shock-like
 - May be severe and incapacitating
- Difficult to treat
- May take months to years to resolve
- Increasing incidence with age
 - 2% of adults < 40 years
 - 21% of adults 40 – 60 years
 - 40% or more of adults > 60 years

Ophthalmic Zoster

- Involvement of the trigeminal (5th cranial) nerve
- May involve rash of skin/eyelid, inflammation of eye, and/or permanent scarring of eye and loss of vision



Image courtesy of C. Stephen Foster, MD, Massachusetts Eye Research and Surgery Institute, Harvard Medical School

Ramsay-Hunt Syndrome

- Involvement of facial and auditory (7th and 8th) cranial nerves
- Painful rash of ear and/or lower face
- Unilateral hearing loss
- Nystagmus
- Vertigo
- Facial weakness
- May be difficult to diagnose, particularly in elderly patients

Disseminated Zoster

- Onset similar to local zoster
- Generalized skin eruptions occur 7-14 days after onset of initial rash
- May involve the central nervous system, lungs, liver and pancreas
- Frequency
 - General population: ~ 2% of zoster cases
 - Immunocompromised: up to 35% of zoster cases

Herpes Zoster Vaccine

- Contains live attenuated varicella virus in an amount that is approximately 14 times greater than that in regular varicella vaccine
- Approved for persons 60 years of age and older
- Administered by the subcutaneous route

Vaccine Efficacy

- Compared to the placebo group the vaccine group had:
 - 51% fewer episodes of zoster
 - Lower efficacy for older recipients
 - Less severe disease
 - 66% less postherpetic neuralgia
- Duration of immunity unknown

NEJM 2005;352(22):2271-84.

Vaccine Recommendations

- Single dose of zoster vaccine for adults 60 years of age and older whether or not they report a prior episode of shingles
- Persons with a chronic medical condition may be vaccinated unless a contraindication or precaution exists for their condition

MMWR 2008;57(No. RR-5)

Contraindications

- Severe allergic reaction to a vaccine component or following a prior dose
- Pregnancy or planned pregnancy within 4 weeks
- Immunosuppression from any cause

MMWR 2008;57(No. RR-5)

Precautions

- Moderate or severe acute illness
- Current treatment with an antiviral drug active against herpesviruses
 - discontinue at least 24 hours before administration of zoster vaccine
 - should not be taken for at least 14 days after vaccination
- Recent receipt of a blood product is NOT a precaution

MMWR 2008;57(No. RR-5)

Adverse Reactions

- Local reactions – 34% (pain, redness)
- No increased risk of fever
- No serious adverse reactions identified