

Session One

HERPES ZOSTER AND POST HERPETIC  
NEURALGIA

Lyn Guenther

9:05 am – 9:25 am  
Saturday, Nov 5

Humans are the only known reservoir of the Varicella-Zoster virus. The primary infection is chickenpox (varicella) and recurrent disease, shingles (zoster). Chickenpox is very contagious, infecting approximately 90% of susceptible individuals. The infection is worldwide with no sexual or racial predilection. The lifetime risk of developing varicella was >95% prior to the varicella vaccine. Crops of pruritic maculopapular and vesicular lesions typically begin on the scalp, face or trunk, crust over, then slough with healing. Mucous membranes, especially the oral mucosa, may be affected. During the primary infection, viral latency is established in the dorsal root ganglion. Re-exposure to the virus boosts humoral and cell-mediated immunity. Waning cell-mediated immunity contributes to the reactivation of the varicella zoster virus as shingles.

The risk of shingles increases with age and is also more common in individuals who are immunosuppressed (e.g. HIV positive, have cancer (especially Hodgkin's disease or leukemia), transplant patients and patients on immunosuppressive drugs). Recurrent zoster occurs in 1.7% to 5.2%. The lifetime Canadian risk of developing zoster is 28%, with up to 50% of individuals >age 85 years having an episode. A prodrome is common with pain, paresthesia, headache, malaise and fever. The pain may mimic other conditions such as pleurisy, myocardial infarction, biliary or renal colic and appendicitis. The skin eruption is usually dermatomal and unilateral with painful erythematous macules, papules and vesicles on an erythematous bases, followed by crusting. Lesions usually heal in 4 weeks. The diagnosis is usually made clinically, but may be confirmed with a viral culture, direct immunofluorescence assay or polymerase chain reaction (PCR). Acute zoster can have a significant impact on activities of daily living. Complications include bacterial superinfection, segmental motor paralysis, visceral dissemination, keratitis, uveitis, iridocyclitis, panophthalmitis, glaucoma, postherpetic neuralgia (PHN) and scarring.

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PHN is a chronic neuropathic pain persisting or recurring in the dermatome affected by zoster. Pathologic studies have shown fibrotic scarring of the dorsal root ganglion and atrophy of the dorsal horn. PHN occurs in up to 50% of individuals > age 50 years. Risk factors include older age, severe eruption, severe acute zoster pain, sensory abnormalities and prodrome.

Zoster should be treated in individuals 50 years of age or older, those with severe acute pain, severe rash and/or severe prodromal symptoms. The antivirals acyclovir 800 mg five times daily, famciclovir 500 mg TID and valacyclovir 1000 mg three times daily speed healing and reduce pain. Valacyclovir is more efficacious than acyclovir and has comparable efficacy to famciclovir. Tricyclics such as amitriptyline should be considered acutely since they may reduce the incidence of PHN in individuals > age 60. Gabapentin and pregabalin may effectively treat the pain and associated sleep disturbance.

Vaccination can prevent varicella and zoster. The varicella vaccine was introduced in 1999 and confers 70-90% protection, resulting in a 75-80% decrease in the incidence of varicella. The zoster vaccine which has 14 times the potency of the varicella vaccine, is pending approval. A large study involving 38,546 adults 60 years of age or older compared zoster vaccine to placebo. The group treated with the vaccine had a 51.3% reduction in zoster, decreased severity and shorter duration of zoster, a 66.5% reduction in PHN at 3 months and 72.9% reduction at 6 months.