

## “The Pain Associated with Shingles and Post-Herpetic Neuralgia”

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## Definition

- “a painful central nervous system infection caused by the varicella-zoster virus”
- Means girdle belt in Latin
- After chickenpox, a small % of the virus travels into the base of the nerve roots close to the spinal cord
- When reactivated, virus travels through the nerves to the surface of the skin
- Hallmark symptoms: blistering red rash & acute pain

## Common skin infections

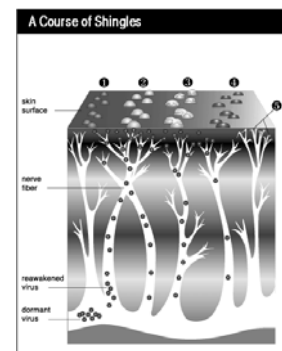
- Herpes simplex virus type 1 (HSV-1)
- Herpes simplex virus type 2 (HSV-2)
- Human cytomegalovirus
- Epstein-Barr virus
- Varicella-zoster virus (VZV)
- Human herpes virus 6 (HHV-6)

## Statistics

- An estimated one million Americans are afflicted yearly
- Can affect anyone who has had chickenpox
- 10-20% will have shingles during their lifetime

## Risk factors

- Advanced age
- Immunosuppression
- Chemotherapy



## Differential diagnosis

- Dermatitis
- Varicella-zoster virus
- Herpes simplex virus
- Poison ivy, oak or sumac
- Cellulitis
- Eczema or psoriasis
- Cholecystitis, pleuritis, myocardial infarction

## Indicators

- Acute pain (unilateral)
- Clustered red rash
- Characteristic fluid-filled vesicles
- Prodromal symptoms
- Lesions on torso, back, buttocks, face, ears or scalp

## Assessment

- Red, grapelike, clustered rash
- Prodromal symptoms: malaise, chills, fever, weakness, poor sleep, poor appetite, anxiety & GI discomfort
- Pre-eruptive symptoms: stinging, itchy, stabbing or burning sensation on the skin
- Active phase: rash

## Acute management

- Viral infection
- Acute pain
- Additional complications

## Viral infection

- Oral antiviral agents
  - Interfere with DNA synthesis & viral replication
  - Start within 72 hrs of rash
  - Taken for 7-10 days
  - Take with food & 8 oz. of water
  - May need IV medication if several dermatomes are involved
  - SE = mild headache or nausea

## Viral infection (cont)

- Antivirals
  - Acyclovir (Zovirax)
    - PO dosing 5 times/day x 7-10 days
    - Lower bioavailability
  - Valacyclovir (Valtrex)
    - PO dosing 3 times/day x 7 days
    - Better bioavailability than acyclovir
    - May be better at decreasing pain severity
  - Famciclovir (Famvir)
    - PO dosing every 8 hrs x 7 days
    - Longer  $\frac{1}{2}$  life than acyclovir & better bioavailability than the other 2

## Pain

- Sharp & jabbing, burning, or deep & aching
- Sensitive to touch & temperature changes
- Itching & numbness
- “Fire under the skin”, “deep & aching”, “unbearable shooting pain”

## Pain (cont)

- Prompt management can slow the course & symptoms
- Results from affected inflamed nerves or nerve endings that were damaged by the virus
- Can occur 3 weeks before rash & last for weeks or months after rash
- Ranges from mild to extreme
- Variety of treatments used

## Pain (cont)

- Rx
  - Lidoderm patch
    - Can only be applied to *intact* skin
  - Capsaicin cream
    - SE: burning, stinging & erythema at application site (30% of cases)
  - Calamine lotion
  - Compresses
  - Analgesics
  - Steroids?

## EBP

- Antiviral agents
  - “Likely to be beneficial”
- TCAs
  - “Beneficial”
  - Significantly increased pain relief after 6 weeks
- Gabapentin
  - “Beneficial”
  - Significantly relieved pain after 8 weeks of Rx
    - From Clinical Evidence Concise: a publication of BMJ Publishing Group

## Pain testimonies

- “My husband was undergoing chemotherapy treatment for prostate cancer when he developed shingles in his right eye. The pain was so bad that he lost all will to live. Shingles finished him”
- “I would rather have ten babies than the pain I’ve endured for the past ten years.”

## Complications

- Post-herpetic neuralgia (PHN)
- Ophthalmic nerve infections
- Ramsay Hunt Syndrome

## Ophthalmic nerve infections

- High risk for:
  - Blurred or impaired vision
  - Conjunctivitis
  - Irritation
  - Blindness
- Indicators
  - Burning, itching, watery eyes
- Treatment
  - Referral

## Ramsay Hunt Syndrome

- Caused by damage to the 7<sup>th</sup> cranial nerve (severe ear & face pain)
- Can damage ear & hearing
- S&S: dizziness, severe earaches, stinging & burning sensations on outer ear, paralysis of face, deafness, change in taste & brain encephalitis
- Rx: refer to neurologist

## Common symptoms of PHN

- Scarring & pigmentation
- Sensory disturbance
- Sleep disturbance
- Lethargy
- Depression
- Anorexia
- Decreased libido
- Suicidal tendencies

## PHN

- Cause: damage to sensory nerves
- Pain is prominent S&S
- 20% infected with VZV can develop PHN
- Rx
  - Anticonvulsant medications
  - TCAs
  - NSAIDs
  - Opioids
  - Local anesthetics

## PHN pain

- Constant aching, burning or itching
- Recurrent stabbing or cutting pain
- Allodynia
- Hyperalgesia
- Hyperaesthesia

## PHN pain (cont)

- Advanced Rx
  - TENS unit
  - Epidural blocks
  - Intrathecal blocks
  - Sympathetic blocks

## PHN pain (cont)

- Self-care
  - Permeable dressings
  - Cognitive behavioral therapy
  - Topical creams

## Behavioral strategies

- Relaxation
- Activity-rest cycle
- Attention diversion techniques
- Cognitive restructuring
- Meditation

## Comments from patients with PHN

- “I very rarely go out of the house now.”
- “I feel depressed.”
- “I think about the pain most of the time.”
- “I feel helpless.”
- “I think about ending it.”
  - From: Williams, H. Life after shingles: the management of postherpetic neuralgia.

## Unusual cases

- 15-year old female with complaints of “blistering to R arm”. Has burning, itching & tingling to arm. Has had chickenpox.
- Diagnosis: shingles
- Rx: Acyclovir & Vicodin

## Unusual cases (cont)

- 1-year old female with rash to L leg
- Had 1-year shots, including chicken pox vaccine
- Diagnosis: shingles
- Rx: Acyclovir & acetaminophen

## Unusual cases (cont)

- 34-year old female with a little rash to her L forehead & to her nose; also feels like her L eye has a little bit of discomfort
- Has had shingles in the past to the other side of her face
- Diagnosis: shingles
- Rx: Acyclovir & Norco; referral to ophthalmologist

### Unusual cases (cont)

- 40-year old female with painful blister type lesions to R flank
- Diagnosed with HIV about a week ago
- Developed blisters about 4 days ago
- Diagnosis: shingles
- Rx: Acyclovir & pain medicine

### Internet resources

- [www.shingles.com](http://www.shingles.com)
- [www.shingles.org](http://www.shingles.org)
- [www.fda.org](http://www.fda.org)
- [www.shingles.mgh.harvard.edu](http://www.shingles.mgh.harvard.edu)
- [www.paincare.org](http://www.paincare.org)
- [www.vzvfoundation.org](http://www.vzvfoundation.org)
- [www.aftershingles.com](http://www.aftershingles.com)

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