

Antiviral Treatment of Herpes Zoster: Review Questions

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QUESTIONS

Choose the single best answer for each question.

- A 55-year-old woman presents to her physician with complaints of a moderately painful rash that she first noticed the previous day. On examination, a band of grouped erythematous vesicles is noted over the right flank in the T12 dermatome. Reasonable treatment options at this time (either alone or in combination with other agents) include all of the following EXCEPT:**
 - Prednisone
 - Acyclovir
 - Carbamazepine
 - Opiate analgesics
 - Valacyclovir
- A 72-year-old man presents with severe left thigh pain in the area of a rash that began approximately 10 days prior to presentation. A crusting, linear, erythematous rash is present on his anterior thigh, with areas of dysesthesia around the rash. Healing herpes zoster is diagnosed. All of the following are appropriate treatments at this time EXCEPT:**
 - Opiate analgesics
 - Famciclovir
 - Amitriptyline
 - Topical lidocaine
 - Gabapentin
- Which of the following statements regarding antiviral treatment of herpes zoster is true?**
 - Acyclovir is less effective than famciclovir or valacyclovir in preventing postherpetic neuralgia.
 - Antiviral agents are effective when administered within 5 days of rash onset.
 - Duration of postherpetic neuralgia is decreased by prompt antiviral therapy of herpes zoster.
 - Antiviral therapy is not effective against acute pain caused by herpes zoster.
 - Antiviral treatment of herpes zoster leads to antiviral resistance in the varicella virus.
- All of the following factors are associated with an increased risk of development of postherpetic neuralgia EXCEPT:**
 - Immunosuppression
 - Increasing patient age
 - Ophthalmic distribution of herpes zoster
 - Severe acute herpes zoster pain
 - Premonitory pain prior to herpes zoster rash
- In which of the following immunocompetent patients presenting within 24 hours of rash onset should antiviral therapy NOT be considered?**
 - A 30-year-old nonpregnant woman with severely symptomatic acute herpes zoster
 - A 40-year-old man with mildly symptomatic acute herpes zoster
 - A 50-year-old woman with severely symptomatic acute herpes zoster
 - A 60-year-old man with mildly symptomatic acute herpes zoster
 - A 70-year-old asymptomatic woman with a few herpes zoster lesions on her right cheek
- Oral antiviral medications for herpes zoster can be used in which of the following patients?**
 - In patients older than age 75 years
 - In patients with creatinine levels greater than 1.5 mg/dL
 - In patients with hepatic dysfunction
 - In patients with platelet counts less than 100,000/mm³
 - All of the above

(turn page for answers)

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EXPLANATION OF ANSWERS

1. **(C) Carbamazepine.** The patient has a rash that is consistent with herpes zoster. Prednisone in combination with antiviral agents has been shown to decrease acute symptoms of herpes zoster. Both acyclovir and valacyclovir have also been shown to relieve and shorten acute symptoms of herpes zoster as well as shorten the duration of postherpetic neuralgia if it occurs. Opiates may be necessary to relieve severe pain caused by herpes zoster. Carbamazepine can relieve some forms of postherpetic neuralgia, but the drug is not helpful for relief of acute zoster pain.
2. **(B) Famciclovir.** Antiviral medications such as famciclovir are not helpful 10 days after the onset of herpes zoster rash. Opiate analgesics, amitriptyline, topical lidocaine, and gabapentin provide relief of neuropathic zoster pain in this situation.
3. **(C) Duration of postherpetic neuralgia is decreased by prompt antiviral therapy of herpes zoster (TRUE).** Antiviral treatment of herpes zoster decreases the duration of postherpetic neuralgia if administered within 72 hours of rash onset. After 72 hours, antiviral use offers little advantage. It is not clear if any particular antiviral drug has an advantage over the other antiviral drugs; however, famciclovir and valacyclovir may be easier to administer because of less frequent dosing requirements. Administration of antiviral drugs within 72 hours also diminishes herpes zoster pain and reduces its duration. Antiviral resistance has been noted in immunosuppressed patients on long-term antiviral suppression, but resistance has not been demonstrated with the usual 7-day course of antiviral treatment for herpes zoster.
4. **(A) Immunosuppression.** Immunosuppressed patients are more likely to develop herpes zoster and disseminated zoster, but these patients are not more likely to develop postherpetic neuralgia. Ophthalmic distribution of herpes zoster, severe acute herpes zoster pain, and premonitory pain prior to zoster rash onset are associated with a greater risk of postherpetic neuralgia. Postherpetic neuralgia is uncommon in patients younger than age 50 years and very common in patients age 70 years and older.
5. **(B) A 40-year-old man with mildly symptomatic acute herpes zoster.** Antiviral treatment is generally recommended for all patients of any age with severely symptomatic herpes zoster and for patients older than age 50 years with zoster of any severity. Antiviral treatment is also recommended for any severity of facial zoster because of the risk of ophthalmic involvement and a greater chance of postherpetic neuralgia.
6. **(E) All of the above (in patients older than age 75 years, in patients with creatinine levels greater than 1.5 mg/dL, in patients with hepatic dysfunction, in patients with platelet counts less than 100,000/mm³).** Oral antiviral medications have a very good safety record, with remarkably few side effects or adverse events associated with their use. In addition, oral antiviral medications may be used regardless of patient age. In contrast, use of intravenous acyclovir has been associated with acute renal failure, particularly when underlying renal insufficiency is present. Intravenous acyclovir has caused thrombotic thrombocytopenic purpura/hemolytic-uremic syndrome in immunosuppressed patients and should be used with caution in patients with hepatic abnormalities.

INTERNAL MEDICINE

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