

## Early Initiation of Acyclovir is Associated with Better Pain Control in Herpes Zoster-An Illustrative Case

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### Introduction

Herpes zoster is caused by varicella zoster virus, a DNA virus. Post herpetic neuralgia is a common complaint in patients following resolution of the rash. We present the case of a patient who was initiated on acyclovir therapy within 48 hours of onset of the rash resulting in significant improvement in pain. The case illustrates the importance of rapid initiation of acyclovir which helps reduce the chances of post herpetic neuralgia. Narcotic analgesics may be necessary in the acute phase to control the pain.

### Case Report

A 71 year old man with no significant medical problems presented to the ER with complaints of pain on the right side of the face. The pain started suddenly 1 week back on the right side of the face. He described it as a headache that would come on all of a sudden. It was in the beginning not associated with any redness or watering from the eyes or any change in vision, but he felt that the right side of his nose was "stuffed". The pain got progressively worse. 48 hours before presentation, he developed a rash over the right side of his face. This was associated with intensification of the pain. He described it as a sensation of "as if my head is going to be blown off". He also complained that it was difficult to open his right eye since then. He had chicken pox as a child but had never been vaccinated with the Zoster vaccine. He was seen in the local emergency room where he received 1 dose of Zostavax and 3 doses of oral Acyclovir (800 mg). He was also given some Oxycodone which he said helped "somewhat". Review of systems was positive for nausea and dry heaves for the last 4 days due to which he had not been able to keep anything down but was negative for fever, chills, chest pain, shortness of breath.

Upon examination, there was a vesicular rash on the right side of the face not crossing the midline. There was obvious swelling of the right eyelids and a small amount of clear discharge from the right

eye with matting of eyelashes. Redness of the bulbar conjunctiva was also noted but the cornea was clear and the pupil reactive to light and accommodation. Rest of systemic examination was normal. Lab data was significant only for pre-renal acute renal failure likely secondary to poor fluid intake.

### Hospital Course

Patient was initially started on intravenous fluids to rehydrate him. He was given Morphine and Oxycodone for the pain. He was also started on intravenous Acyclovir (750 mg q8 hrs based on body weight). Ophthalmology was consulted who did a detailed examination and found no evidence of corneal or retinal involvement. By day 2, the patient's pain was better although the rash was now more prominent and showed early signs of scabbing. The patient was continued on oral Oxycodone for pain control and switched to oral Acyclovir on Day 2. On day 3, his pain was much better, his nausea had been controlled, and he was eating well. His acute renal failure had resolved. He was discharged home on oral Acyclovir 800 mg 5 times daily for 10 days.

### Discussion

Studies have shown that initiation of acyclovir treatment (800 mg, five times daily for 10 days) within 72 hours of onset of rash is associated with faster alleviation of pain and lower incidence of post herpetic neuralgia [1,2]. Valacyclovir (1gm three times daily for 7-14 days) is another alternative. Oral analgesics are recommended for pain control. Nonsteroidal anti-inflammatory drugs and acetaminophen are useful for mild pain associated with herpes zoster, either alone, or in combination with a weak opioid analgesic (eg, codeine or tramadol). For moderate to severe pain that disturbs sleep, stronger opioid analgesics (eg, oxycodone or morphine) may be necessary [3]. Topical analgesics are contraindicated due to corneal toxicity. Ophthalmic consultation should be sought early for detailed eye examination [4].

In a meta- analysis corticosteroids were found to be ineffective in preventing post-herpetic neuralgia [5]. The zoster vaccine was significantly more effective in preventing herpes zoster than placebo with a higher benefit in those who were between 60-69 years (relative risk of 0.36, 95% CI 0.30-0.45) [6]. In patients with established PHN, topical lidocaine, carbamazepine and to a lesser extent sodium valproate have been reported to provide significant pain relief [7] (Figure 1).



At admission (48 hrs after first appearance of rash)      Day 2 of Admission      Day 3 of Admission (discharged)

Time since appearance of rash	48 hrs	72 hrs	96 hrs
Pain	+++	++	+
Redness of eye	++	++	+
Discharge	+	+	+
Blurriness of vision	+	+	+
Prominence of rash	+	+++	+++
Acyclovir	3 doses of PO (800 each)	IV Acyclovir (750 q8)	PO Acyclovir (800 5 times/d)

**Figure 1:** Time course of progression of skin lesions and symptoms and correlation with initiation of treatment in patient with Herpes zoster.

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## Conclusion

In conclusion, our case illustrates the importance of early treatment in pain control in suspected herpes zoster.

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