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Original Research

Valacyclovir and famciclovir in cases of herpes zoster- A comparative study

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ABSTRACT:
Background: Herpes zoster a localized disease has been known since ancient times and is often referred by different names such as varicella zoster and shingles. The present study compared valacyclovir and famciclovir in cases of herpes zoster. **Materials & Methods:** 48 patients of herpes zoster of both genders were divided into 2 groups of 24 each. Group I patients were prescribed valacyclovir 1000 mg thrice daily, and group II patients were prescribed famciclovir 500 mg thrice daily. **Results:** Group I had 14 males and 10 females and group II had 12 males and 12 females. The site involved was cervical in 25% in group I and 22% in group II, thoracic 51% in group I and 50% in group II, lumbar 14% in group I and 15% in group II and trigeminal 10% in group I and 13% in group II. The mean VAS in group I and group II on day 3 was 6.73 and 6.15, on day 7 was 4.52 and 4.86, on day 14 was 2.06 and 2.36 and on day 25 was 1.25 and 1.54 respectively. The difference was non- significant (P>0.05). **Conclusion:** Valacyclovir found to be better than famciclovir in patients with herpes zoster.
Key words: Famciclovir, Herpes zoster, Valacyclovir

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INTRODUCTION

Herpes zoster a localized disease has been known since ancient times and is often referred by different names such as varicella zoster and shingles. Herpes zoster (HZ), or shingles, is a clinical syndrome resulting from the reactivation of latent varicella zoster virus (VZV) within the sensory ganglia, manifesting as a unilateral vesicular skin eruption involving one to three dermatomes.[1] It is typically characterized by unilateral radicular pain along with grouped vesicular eruptions. An incidence of 3-5% for herpes zoster in Europe, North America, and Asia-Pacific, was reported by a systematic review in 2014.[2] It also showed an increased incidence at the age of 60 years as 6 – 8% and also at the age of 80 years as incidence being 8 – 12%. Immunosuppression and increasing age are well-established risk factors that can lead to latent virus reactivation.[3]

In the course of viral reactivation, the virus spreads centrally and peripherally from the dorsal ganglia, producing intense inflammation in the skin, affecting the peripheral nerves and nerve roots; it may also reach the spinal cord. The vesicular rash is often painful and the pain can occur before the onset of rash, or may occur without the development of a rash in rare cases.[4]

Valacyclovir is known to accelerate the resolution of acute pain associated with herpes zoster and also decreases the number of patients complaining of persistent pain.[5] Famciclovir is another antiviral agent, which is a prodrug of penciclovir available with the advantage of a longer intracellular half-live and a better bioavailability.[6] The present study compared valacyclovir and famciclovir in cases of herpes zoster.

MATERIALS & METHODS

The present study comprised of 48 patients of herpes zoster of both genders. All were informed regarding the study and their written consent was obtained.

Data such as name, age, gender etc. was recorded. Patients were divided into 2 groups of 24 each. Group I patients were prescribed valacyclovir 1000 mg thrice daily, and group II patients were prescribed

famciclovir 500 mg thrice daily. 40 milligrams methyl prednisone was also prescribed once daily in the morning for 1 week followed by tapering over the next 2 weeks. Patients were recalled regularly and the lesions were recorded. Results were analysed statistically. P value <005 was considered significant.

RESULTS

Table I Distribution of patients

Groups	Group I	Group II
Drug	Valacyclovir 1000 mg	Famciclovir 500 mg
M:F	14:10	12:12

Table I shows that group I had 14 males and 10 females and group II had 12 males and 12 females.

Table II Distribution of lesions

Site	Group I	Group II	P value
Cervical	25%	22%	0.91
Thoracic	51%	50%	
Lumbar	14%	15%	
Trigeminal	10%	13%	

Table II, graph I shows that site involved was cervical in 25% in group I and 22% in group II, thoracic 51% in group I and 50% in group II, lumbar 14% in group I and 15% in group II and trigeminal 10% in group I and 13% in group II. The difference was significant (P< 0.05).

Graph I Distribution of lesions

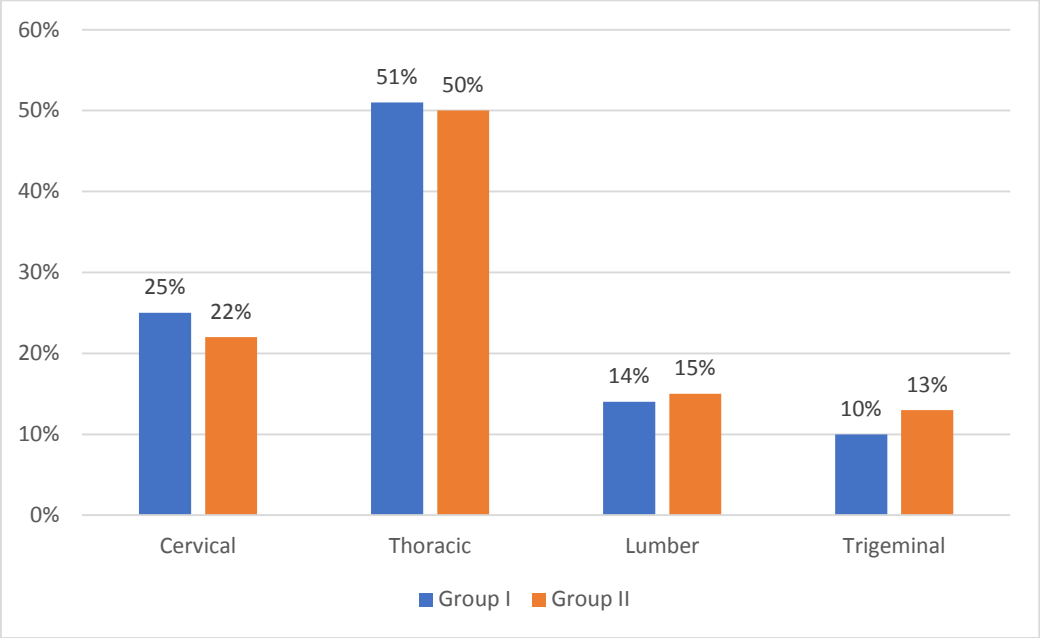

Table III VAS in both groups

Days	Group I	Group II	P value
3	6.73	6.15	0.12
7	4.52	4.86	0.15
14	2.06	2.36	0.31
25	1.25	1.54	0.42

Table III shows that mean VAS in group I and group II on day 3 was 6.73 and 6.15, on day 7 was 4.52 and 4.86, on day 14 was 2.06 and 2.36 and on day 25 was 1.25 and 1.54 respectively. The difference was non- significant (P>0.05).

DISCUSSION

The management of uncomplicated HZ involves antiviral therapy to promote faster healing of the cutaneous lesions.[7] In patients with moderate to severe acute neuritis, analgesic treatment may also be given.[8] Famciclovir, the oral prodrug of penciclovir, belongs to the same family of anti-herpetic agents as acyclovir and valaciclovir (oral prodrug of acyclovir), but has different pharmacokinetic and antiviral properties.[9] The present study compared valacyclovir and famciclovir in cases of herpes zoster.

In present study, group I had 14 males and 10 females and group II had 12 males and 12 females. Bist et al[10] in their study 60 patients, with active herpes zoster presenting to the outpatient department within 72 hr of the first occurrence of zoster rash were divided in to two groups of 30 patients each. The first group of patients received valacyclovir tablet 1000 mg thrice daily, whereas those in the second group were given famciclovir tablet 500 mg thrice daily. Both the drugs were given for 7 days. Periodic follow-up till 29th day was done for assessment of the effects of given drugs. Significant decrease was observed on comparison of pain scores between the two groups using the visual analog scale, with the drug valacyclovir, than in the famciclovir group at day 29. Furthermore, valacyclovir treatment accelerated the resolution of zoster associated pain in more number of patients compared with famciclovir.

We found that site involved was cervical in 25% in group I and 22% in group II, thoracic 51% in group I and 50% in group II, lumbar 14% in group I and 15% in group II and trigeminal 10% in group I and 13% in group II. Junior et al[11] determined the efficacy of famciclovir compared to acyclovir in patients with herpes zoster, to determine whether the two regimens are equally effective for the treatment of patients with uncomplicated herpes zoster over a period of 7 days. Patients were randomly assigned to receive either famciclovir 500 mg (one tablet) three times daily or acyclovir 800 mg (two capsules) five times daily for 7 days. The primary endpoint was defined as the time to full crusting of herpes zoster lesions. Secondary endpoints were the proportion of patients who achieved complete cure and the change in score of signs/symptoms (pain, vesicular lesions, loss of sensitivity, burning pain, and pruritus) according to the patient diary. One hundred and seventy-four patients were enrolled and randomized; 151 of these patients completed treatment (n = 75 famciclovir, n = 76 acyclovir). A similar proportion of patients who received acyclovir (94.74%) and famciclovir (94.67%) achieved complete cure. The mean time to full crusting of herpes zoster lesions was 15.033 days in the acyclovir group and 14.840 days in the famciclovir group (log-rank p-value = 0.820). The most common adverse events in the pooled groups were headache, diarrhea, nausea, back pain, cold, and drowsiness, but none of these was deemed to be clinically important.

We found that mean VAS in group I and group II on day 3 was 6.73 and 6.15, on day 7 was 4.52 and 4.86, on day 14 was 2.06 and 2.36 and on day 25 was 1.25 and 1.54 respectively. Tyring et al[12] compared the efficacy and safety of valacyclovir hydrochloride and famciclovir for the treatment of herpes zoster. There were 597 otherwise healthy immunocompetent outpatients, aged 50 years and older, who presented within 72 hours of onset of zoster rash. Treatment with valacyclovir hydrochloride (1 g 3 times daily) or famciclovir (500 mg 3 times daily) for 7 days. Resolution of zoster-associated pain and postherpetic neuralgia, rash healing, and treatment safety. Intent-to-treat analysis did not detect statistically significant differences for valacyclovir vs famciclovir on resolution of zoster-associated pain. Furthermore, no differences were evident between treatments on rash healing rates and on a range of analyses of postherpetic neuralgia. Safety profiles for valacyclovir and famciclovir were similar, with headache and nausea being the more common adverse events.

CONCLUSION

Authors found that valacyclovir found to be better than famciclovir in patients with herpes zoster.

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