ORIGINAL RESEARCH

Analysis of cases of Herpes zoster

[1]Dr. Kapil Sud, [2]Dr. Amit Varma

[1]Assistant Professor, Dept. of Medicine, ICARE Institute of Medical Sciences and Research & Dr Bidhan Chandra Roy Hospital, Haldia, West Bengal, India.
[2]Associate Professor, Dept. Of Dermatology, Gujarat Adani Institute Of Medical Sciences, Bhuj, Gujarat, India.

Corresponding Author
Dr. Amit Varma
Associate Professor, Dept. Of Dermatology, Gujarat Adani Institute Of Medical Sciences, Bhuj, Gujarat, India.

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ABSTRACT
Background: The neurocutaneous viral infection known as herpes zoster (HZ), or shingles, is caused by the reactivation of the latent varicella-zoster virus (VZV), which is typically located inside the cranial nerve or dorsal root ganglia following the initial infection. The present study was conducted to assess cases of Herpes zoster (HZ).
Materials & Methods:57 patients with Herpes zoster (HZ) of both genders were selected. Comorbidities, treatment for HZ infection, season of infection, and consequences were among the parameters that were noted.
Results: Out of 57 patients, 30 were males and 27 were females. The season was autumn in 5, spring in 13, and winter in 39 patients. Dermatomal area involved was thoracic segment in 25, cervical in 10, lumbar in 8, sacral in 5 and trigeminal segment in 9 patients. Comorbid diseases were atopic dermatitis in 1, anxiety disorder in 2 patients, and malignancy in 1 patient. Treatment given was acyclovir in 38, valacyclovir in 14 and Brivudine in 5 patients. The difference was non-significant (P> 0.05).
Conclusion: HZ infections is linked to underlying immunological disorders. The thoracic, cervical, lumbar, sacral, and trigeminal segments were the dermatomal areas most frequently affected. Winter and spring were the common seasons.
Keywords: Herpes zoster, spring, immunological disorders

Introduction

The neurocutaneous viral infection known as herpes zoster (HZ), or shingles, is caused by the reactivation of the latent varicella-zoster virus (VZV), which is typically located inside the cranial nerve or dorsal root ganglia following the initial infection.[1] Clinically, the infection first appears as a macular rash, which within 24 hours turns into a vesicular skin eruption in the sensory dermatomal area of the affected ganglia.[2] A prodrome of pain, itching, and paraesthesia usually follows this eruption. The vesicles eventually rupture, produce crusting, and then go away with or without alterations in the skin's color. It is rare in healthy children but more common in adults, especially those with compromised cellular immunity, with a 10–30% fatality rate.[3]

The largest risk factor for infection is being older. Leukemia, lymphomas, bone marrow and other organ transplants, HIV infection, chemotherapy, and physical trauma are some conditions that cause a reduction in cellular immunity. It has been found that HZ is more common among women and white persons.[4] Postherpetic neuralgia (PHN), the chronic pain that an unacceptably high percentage of individuals have long after their initial condition has gone, is the most common result. It can last anywhere from a few months to a lifetime. Ocular issues in adults have been associated with affection of the trigeminal nerve.[5]In addition to peripheral nerve injury (PHN), ocular complications include glaucoma, uveitis, keratitis, acute and retinal necrosis, secondary bacterial infection, and long-lasting lichenoid lesions; neurological complications include meningitis, encephalitis, and trigeminal trophic syndrome; and cutaneous complications include temporary segmental paralysis.[6]The present study was conducted to assess cases of Herpes zoster (HZ).

Materials & Methods

The present study consisted of 57 patients with Herpes zoster (HZ) of both genders. Patients gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. Comorbidities, treatment for HZ infection, season of infection, and consequences were among the parameters that were noted.Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

Results

Table: I Distribution of patients

Total- 57		
Gender	**Male**	**Female**
Number	30	27

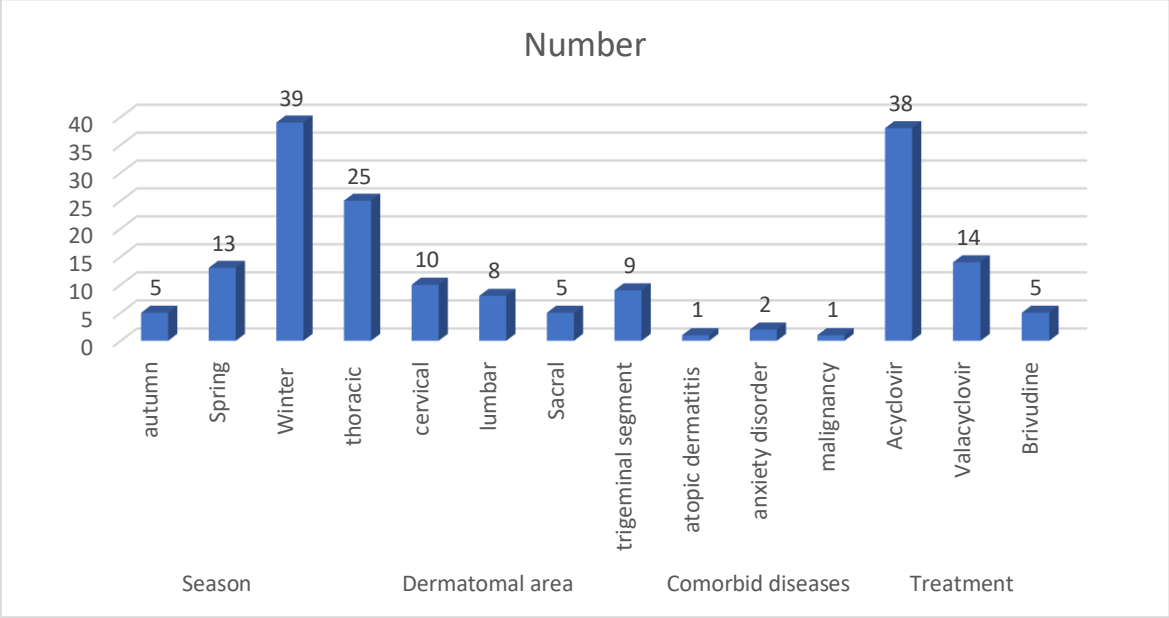
Table I shows that out of 57 patients, 30 were males and 27 were females.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Season	autumn	5	0.05
	Spring	13	
	Winter	39	
Dermatomal area	thoracic	25	0.63
	cervical	10	
	lumbar	8	
	Sacral	5	
	trigeminal segment	9	
Comorbid diseases	atopic dermatitis	1	0.89
	anxiety disorder	2	
	malignancy	1	
Treatment	Acyclovir	38	0.76
	Valacyclovir	14	
	Brivudine	5	

Table II, graph I show that the season was autumn in 5, spring in 13, and winter in 39 patients. Dermatomal area involved was thoracic segment in 25, cervical in 10, lumbar in 8, sacral in 5 and trigeminal segment in 9 patients. Comorbid diseases were atopic dermatitis in 1, anxiety disorder in 2 patients, and malignancy in 1 patient. Treatment given was acyclovir in 38, valacyclovir in 14 andBrivudine in 5 patients. The difference was non- significant (P> 0.05).

Graph I Assessment of parameters



Discussion

Reactivation of the varicella zoster virus (VZV), which is typically acquired in childhood, causes herpes zoster infection, also known as shingles.[7] In the cranial or dorsal sensory nerve ganglia, VZV may remain dormant. It is well recognized that the development of this illness is determined by a malfunction in the cellular immune response.[8] Herpes zoster is usually diagnosed based on clinical signs, which include discomfort and a dermatomal, unilateral vesicular rash.[9] However, this condition can also cause uncommon clinical signs including bilateral shingles and Zoster Sine Herpete, which affects non-adjacent dermatomes and causes pain, burning, and itching without a skin rash.[10]The present study was conducted to assess cases of Herpes zoster (HZ).

We found that out of 57 patients, 30 were males and 27 were females. Pahud et al[11]evaluated patients with VZV PCR-positive cerebrospinal fluid (CSF). Epidemiological, clinical, and laboratory data were collected using a standardized case form. Specimens were genotyped using multi-single nucleotide polymorphism (SNP) analysis.Twenty-six specimens were genotyped from patients 12-85 years of age (median, 46 years). Clinical presentations included meningitis (50%), encephalitis (42%), and acute disseminated encephalomyelitis (ADEM) (8%). Only 11 patients (42%) had a concomitant herpes zoster rash. Genotype analysis identified 20 European Group (Clade1, Clade 3) strains; 4 Asian (Clade 2) strains, and 2 Mosaic Group (Clade 4, Clade VI) strains. One specimen was recognized as vaccine strain by identifying vaccine-associated SNPs.VZV continues to be associated with CNS disease, with meningitis being the most frequent clinical presentation. CNS VZV disease often presented without accompanying zoster rash. Sequencing data revealed multiple genotypes, including 1 vaccine strain detected in the CSF of a young patient with meningitis.

We found that the season was autumn in 5, spring in 13, and winter in 39 patients. Dermatomal area involved was thoracic segment in 25, cervical in 10, lumbar in 8, sacral in 5 and trigeminal segment in 9 patients. Comorbid diseases were atopic dermatitis in 1, anxiety disorder in 2 patients, and malignancy in 1 patient. Treatment given was acyclovir in 38, valacyclovir in 14 and Brivudine in 5 patients. According to Küçükçakır O et al.[12], 0.56% of all patients who came to our department had herpes zoster. Their ages (mean age: 49.6, median age: 53) varied from 6 months to 87 years. There were about equal numbers of males and women. January and December saw the highest number of admissions, with thoracic involvement being the most common. There were no occult cancers that Zoster was a forerunner to. Cardiovascular disease was the most often linked systemic condition. 7.4% of the instances included children. 21.4% of patients experienced complications. Postherpetic neuralgia was the most frequent side effect.

In order to identify risk factors for the occurrence of PHN, Opstelten W et al[13] calculated the incidence of HZ and PHN in a primary care population. Multivariate logistic regression was used to analyze potential risk markers. In all, 837 patients had received a diagnosis of HZ [incidence 3.4/1000 patients/year, 95% CI 2.9-3.9]. One month following the onset of the zoster rash, the probability of getting PHN was 6.5% (95% CI 4.9-8.3). The risk for patients above or equal to 55 years was 11.7% (95% CI 8.5-14.9). Age [55-74 years, adjusted odds ratio (OR) 4.2, 95% CI 1.8-9.7; >75 years, OR 10.7, 95% CI 4.6-25.1] and ocular localization (OR 2.3, 95% CI 1.0-4.6) were independent risk factors for the incidence of PHN.

The limitation of the study is the small sample size.

Conclusion

Authors found that that HZ infections is linked to underlying immunological disorders. The thoracic, cervical, lumbar, sacral, and trigeminal segments were the dermatomal areas most frequently affected. Winter and spring were the common seasons.

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