



## A STUDY OF HERPES ZOSTER INFECTION:

## Dermatology

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## ABSTRACT

Herpes zoster (HZ), a common viral disease caused by Varicella Zoster Virus (VZV). VZV belongs to herpesvirinae and has the characteristic feature that after primary disease (chicken pox) the virus goes into latency and on reactivation which may occur months to years after primary infection leads to HZ. Chicken pox usually occurs in 2-10 yrs of age group or occasionally in older age group. The reactivation of dormant VZV in sensory ganglion may occur spontaneously or may be due to immunosuppression. Immunosuppression may be due to ageing, HIV infection, malignancy, immunosuppressive drugs, trauma, stress etc. In immunocompromised cases HZ may present with atypical presentations like, disseminated, multidermatomal, recurrent, crusted, haemorrhagic, ulcerative, ecthymatous etc. Typical manifestation of HZ is grouped vesicular lesions on an erythematous base present unilaterally involving a single or adjacent dermatome associated with pain and may be preceded by prodrome of pain. This study is done to find out the incidence, most common dermatome which affects the Patients and also to find out the complications.

## KEYWORDS

Herpes Zoster, Chicken pox, Complications, Dermatome.

## Introduction:

Herpes zoster (HZ), a common viral disease caused by Varicella Zoster Virus (VZV). VZV belongs to herpesvirinae and has the characteristic feature that after primary disease (chicken pox) the virus goes into latency and on reactivation which may occur months to years after primary infection leads to HZ. Chicken pox usually occurs in 2-10 yrs of age group or occasionally in older age group. The reactivation of dormant VZV in sensory ganglion may occur spontaneously or may be due to immunosuppression.(1) Immunosuppression may be due to ageing, HIV infection, malignancy, immunosuppressive drugs, trauma, stress etc. In immunocompromised cases HZ may present with atypical presentations like, disseminated, multidermatomal, recurrent, crusted, haemorrhagic, ulcerative, ecthymatous etc.(2) Typical manifestation of HZ is grouped vesicular lesions on an erythematous base present unilaterally involving a single or adjacent dermatome associated with pain and may be preceded by prodrome of pain. But sometimes atypical visceral involvement can mimic different medical, surgical or gynaecological ailments. Usually final outcome of HZ is uneventful but some complications may occur. Secondary bacterial infection, ulceration, post-inflammatory hyper/hypo-pigmentation, scar formation, keloid, ocular complications, cranial or peripheral nerve palsies, meningo-encephalitis, visceral involvement and postherpetic neuralgia are various complications of HZ.(3) Among these complications most important and most troublesome complication is postherpetic neuralgia (PHN)(4,5). This study is done to find out the incidence, most common dermatome which affects the Patients and also to find out the complications.

## Aims and Objectives:

To find out the incidence, most common dermatome which affects the Patients and also to find out the complications.

## Materials and Methods:

This study is done in the Department of Dermatology, Travancore Medical College, Kollam.

This study was done from oct 2015 to sept 2017.

In this prospective study cases of HZ attending the outdoor of dermatology department were included irrespective of age and sex. Relevant demographic and clinical findings of all the cases were recorded in a predesigned performa.

## Results:

Table 1: Mean age of the Patients

Patients	Mean age	Standard Deviation
60	42.11	4.33

Table 2: Total Number of Patients who developed complications

Patients	Incidence	Percentage
60	12	20 percent

Table 3: Table of Significance

Patients	X-Value	P-Value (<0.05)
12	0.279	0.0021

This is significant.

Image 1: Frequency of the Dermatome involved:

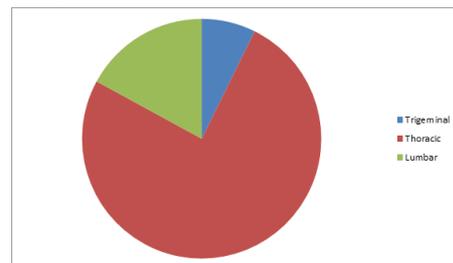


Table 4: Complications:

Complications:	Frequency
Hyperpigmentation	2
Neuralgia	09
Keloid	1
Scar	1

## Discussion:

Similar to study by Katz et al (6) in our study pain was the one of the main complaint at the time of presentation and almost all the cases presented with it. This acute pain has its own morbidity and it is also associated with increased risk of development of PHN (7). Though the severity of pain may vary but those who developed PHN had severe pain at the time of presentation. Risk factors associated with development of PHN include advanced age, female gender, prodrome of pain, severe acute pain, and severe rash. Main risk factor for PHN is increasing age as PHN is relatively uncommon below the age of 50 years. It may develop in 20% of those between 60 to 65 years of age and in greater than 30% of those older than 80 years. Individuals older than 60 years account for 50 percent of these cases. In our study majority of the cases had PHN while in more than 70 years of age all the four cases had PHN. These figures are relatively higher from other studies which may be due to lesser number of cases. Cases who had prodrome of pain are more vulnerable to develop PHN as almost all the cases of PHN had prodromal pain but not all cases of prodromal pain developed PHN which may be related with the intensity of the pain during prodrome. This finding is also supported by the study by Jung BF et al.(8) In our study we categorized pain in mild, moderate & severe on basis of pain affecting case's daily routine activities or sleep. Almost all the cases of PHN had severe pain at the time of presentation, only 3 out of 23 cases had moderate pain who developed PHN. We didn't categorize rash

severity but as compare to the cases who didn't developed PHN, rashes were more severe in cases who developed PHN. Rash severity is indicative of increased epidermal nerve fibre loss & severe acute pain enhances central sensitization and excitotoxic damage in the dorsal horn.

**Conclusion:**

HZ is a common clinical diagnosis in dermatology clinic. PHN is most common complication of HZ which is more common in elderly people and also occurs more in association with female sex, presence of prodrome, severe acute pain & more severe rash.

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