



A CLINICAL STUDY ON HERPES ZOSTER IN A TERTIARY CARE HOSPITAL

Dermatology

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ABSTRACT

AIM: To study the clinical presentations of Herpes zoster patients attending Dermatology OPD at Saveetha medical college, Thandalam. **MATERIALS AND METHODS:** Forty patients having a clinical history of herpes zoster attending Dermatology OPD at Saveetha medical college were included in this study. Clinical details regarding age, sex, prodromal symptoms, duration of skin lesions, the severity of pain, associated systemic illness and complications were obtained. A detailed dermatological examination was done in all these patients. Informed consent will be obtained from all patients. All findings were recorded on specialized designed proforma. **RESULTS:** The most commonly affected were elderly people between the age of 60 and 70 years. Association with systemic illnesses like diabetes, hypertension, tuberculosis, and immunocompromised individuals was observed. Though the disease is not gender specific, it was little preponderance towards women. The commonly involved segment corresponded to thoracic segment. Almost 85% patients had prodromal symptoms with pain of varying intensities as the main symptom. **CONCLUSION:** Herpes zoster occurs as a result of reactivation of varicella zoster virus, commonly seen in immunocompromised elderly persons. Thoracic dermatome was most commonly involved. Initiation of early treatment to reduce complication of herpes zoster.

KEYWORDS

INTRODUCTION:

Herpes zoster is caused by a virus called 'varicella-zoster virus'. This benign disease occurs due to the reactivation of the virus in the dorsal root of the sensory ganglion[1-3]. It is followed by varicella infection in the early life of patient which remains latent in the dorsal root ganglion. It can affect people of any age. Fever, pain and rash were most commonly observed at first. Vaccination may help in prevention. This has association with a major immunocompromised state of HIV patients.

The reactivation occurs as a result of immunosuppression in most of the cases. The most dreadful complication is post herpetic neuralgia [4]. No drugs have been proven to be effective for this condition.

MATERIALS AND METHODS:

Forty patients of age group between 20 and 90 years affected by herpes zoster attending the Dermatology OPD of Saveetha medical college have been included in the study. Informed consent has been obtained from all the patients.

Basic information such as age, sex, address, and occupation were noted. The history related to prodromal symptoms, onset of skin lesions, pain, its nature, and intensity were also taken into account. The most important factor, previous history of varicella infection was noted. Patients history regarding any systemic illness such as diabetes, hypertension, tuberculosis and HIV were asked and recorded. On Dermatological examination, the segment involved, pattern of lesions and their complications were noted.

RESULTS:

Of the forty cases, there were 18 males and 22 females. The age group ranged between 20 and 90 years. Ten cases were below 50 years and 30 cases were above 50 years. The distribution of age and sex has been shown in table 1. The incidence was found to increase with age. A higher incidence was noted in the age group between 61 and 70 years and the least between 21 and 30 years. The previous history of varicella was present in 38 patients.

Table 1;

AGE GROUP	MALE	FEMALE	TOTAL	PERCENTAGE (%)
21-30	1	0	1	2.5
31-40	1	0	1	2.5
41-50	3	2	5	12.5
51-60	4	4	8	20
61-70	4	8	12	30

71-80	3	6	9	22.5
81-90	2	2	4	10

Four patients were on immunosuppressive therapy, two patients were taking steroids and the other two patients were taking methotrexate for psoriasis. There were 10 patients with diabetes, 2 patients with hypertension, 6 patients with both diabetes and hypertension, 2 patients with tuberculosis and 2 cases with connective tissue disorder, a total of 22 cases shown in table 2.

Table 2:

SYSTEMIC DISORDERS	PRESENT (%)	ABSENT (%)
Diabetes, hypertension, and tuberculosis	20	
Connective tissue disorder	2	

SYSTEMIC DISORDERS	NO OF CASES	PERCENTAGE (%)
Diabetes	10	45.45
Hypertension	2	9.09
Tuberculosis	2	9.09
Connective tissue disorder	2	9.09
Diabetes and Hypertension	6	27.27

The most common serious complication was post-herpetic neuralgia. It was found in 22 cases (55%). Out of them, 14 were male and 8 were female. The most prevalent age group was 61 to 70 years and the least commonly observed in 21 to 30 years shown in table 3.

Table 3:

AGE GROUP	POST HERPETIC NEURALGIA	PERCENTAGE (%)
21-30	0	0
31-40	1	4.54
41-50	3	13.62
51-60	5	22.7
61-70	9	40.86
71-80	2	9.08
81-90	2	9.08

34 patients had prodromal symptoms a few days prior to the onset of vesicles. Almost all cases had segmental neuralgia. This was

associated with pain of varying intensities and preherpetic itching was observed in a few cases. Out of all 40 cases, the majority had mild to moderate degree of pain, 6 cases with severe pain, 18 with moderate pain, and 16 had mild pain shown in table 4.

Table 4:

INTENSITY OF PAIN	NO.OF CASES	PERCENTAGE (%)
+++ (Severe)	6	15
++ (Moderate)	18	45
+(Mild)	16	40

The pattern of segmental involvement in these patients is tabulated below in table 5. The most commonly involved dermatome was the thoracic dermatome. This is followed by cervical and lumbar. Also, cranial nerves of ophthalmic and mandibular divisions were also involved shown in table 5.

Table 5:

REGION INVOLVED	NUMBER OF CASES	PERCENTAGE [%]
Thoracic	20	50
Cervical	10	25
Lumbar	4	10
Cranial	6	15

DISCUSSION:

In our study maximum number of cases belongs to the age group of 50-60 years (27%) followed by 31-40 years (19.33%). This is comparable to Toyama and Shiraki⁸ study which reported higher rate of occurrence in individuals aged 50-70 years. In our study the majority i.e, 95% of the patients affected by herpes were above 40 years. Peak incidence was documented in patients between 61 and 70 years by a population based study in Korea. This was similar to reports by Elsam Koshiy, et al. in the literature but was contrast to study by E N Abdul Latheef and K Pavithran^[5,6,7] where incidence was high in third and fourth decades. Lower incidence was observed in the age group between 21 and 30 years which was similar to study done by Rachana.R, et al in a tertiary care centre. In this study majority of the population affected were females which is 55% of the total cases and this was similar to western studies but was contrast to studies from India, Nepal and Pakistan where majority of the affected were males^[7,8]. A study by Kim et al. had recorded higher incidence in women. The varied gender distribution may be due to various factors and it is not gender specific.

In majority of the patients, the stimulating factor could not be elicited. The factor found in other patients were in immunosuppressive therapy, diabetes and other conditions leading to depressed cell mediated immunity [9-12,14]. Studies from Japan and Israel recorded higher incidence of the disease in diabetic patients.

About 38 patients, 95% of the cases had previous history of varicella. A study conducted by Yawn et al reported that 30% of the population affected by varicella had a risk of herpes zoster infection.

Almost all the patients had prodromal symptoms preceded the rash few hours to few days which was similar to old Indian studies and study by C Chandrakala et al where 85% of their cases had prodromal symptoms.

The most commonly involved dermatome was thoracic dermatome in about 50% of cases which was similar to study by E N Abdul Latheef and K Pavithran^[5,10,13]. It was followed by cervical and lumbar segments which was contrast to their study which followed cranial involvement after which led to herpes zoster ophthalmicus.

The most common complication was post herpetic neuralgia which was similar to study by C.Chandrasekha et al who reported 47.5% of their cases had post herpetic neuralgia. Based on the literature reports, the occurrence of post herpetic neuralgia was increasing with age.

CONCLUSION:

Herpes zoster can affect individuals of any age with a higher incidence after sixth decade of life. Varied results are noted in the case of gender specificity hence it needs more research work to arrive at a conclusion. The most commonly involved dermatome was the thoracic dermatome. Incidence of the disease was comparatively higher in

patients with systemic illness and undergoing immunosuppressive therapy. Patients treated with antiviral therapy at the earliest help to reduce the pain intensity of post herpetic neuralgia.

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