Original Article

Prevalence of Herpes Zoster at dermatology and venereal disease inpatient department: A hospital based study

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Abstract

Introduction: Herpes zoster (HZ), commonly known as shingles, is a localized disease characterized by unilateral radicular pain and a vesicular eruption that is generally limited to the dermatome innervated by single spinal or cranial sensory ganglion. The individual lesions are characterized by grouped vesicles on an erythematous base. It occurs as a result of reactivation of varicella zoster virus (VZV) that had persisted in latent form within sensory ganglion following an earlier attack of varicella Varicella-Zoster Virus is an exclusively human DNA virus, hence, also known as human (alpha) herpes virus 3, whose primary infection in the human produces chicken pox (varicella). **Aims and Objectives**: to study Prevalence of Herpes Zoster at Dermatology and Venereal Disease Inpatient Department**. Methodology:** This is cross-sectional, descriptive study All the patients with diagnosis of Herpes Zoster admitted to Dermatology and Venereal Disease Inpatient Department of a Tertiary Care Hospital were included into the study, during Jan 2013 to Jan 2014 this one year's period 120 patients included into the study. All the necessary data was collected by using pretested, semi-structured questionnaire, data was analyzed by Chi-square test, calculated by Graph pad Prism 5**. Result:** Most common age of presentation of the disease was 31-40 (34.99%) followed by 21-30 (26.66%), 11-20 (18.33%), 41-50 (10.83%). Most common occupation was Labour (31.67%), Farmer (25.83%) Student (20.83), House wife (17.50%), Drivers (5.00%). Thoracic dermatome was most common i.e. (51.67%). Thoracic dermatome was more common in males while cervical and lumbar dermatome was found to be more common in females this difference was statistically significant ($p<0.005 x^2 = 11$ and $x^2=4.2$, $p<0.04$ respectively.) **Conclusion:** In our study it found that the most common age of presentation was 31-40, and common in laborer so awareness of mode of transmission should be done in this age group and this data should be used for the management of the patients.

Keywords: Herpes Zoster, Dermatome.

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INTRODUCTION

Herpes zoster (HZ), commonly known as shingles, is a localized disease characterized by unilateral radicular pain and a vesicular eruption that is generally limited to the dermatome innervated by a single spinal or cranial sensory ganglion. The individual lesions are characterized by grouped vesicles on an erythematous base. It occurs as a result of reactivation of varicella zoster virus (VZV) that had persisted in latent form within sensory ganglion following an earlier attack of varicella[1] Varicella-Zoster Virus is an exclusively human DNA virus, hence, also known as human (alpha) herpes virus[3], whose primary infection in the human produces chicken pox (varicella)[2]. During varicella infection, VZV passes from skin lesions into cutaneous sensory nerve endings and ascends up the sensory fibers to the sensory ganglia where it remains in latent stage[3]. Condition in which cellular responses were lost or diminished by immunosuppression pose a risk for reactivation of VZV and recurrent disease manifestation as herpes zoster.[4,5,6]. The biologic mechanisms that

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underlie the transition from latency to active viral replication are unknown. On reactivation, it travels back along the sensory afferents to the skin associated with hematogenous dissemination. Depending upon the rapidity of immune response, the presentation may vary from no clinical lesions, to typical zoster, scattered vesicles, zoster sine herpete or disseminated zoster[7]. Herpes zoster has traditionally affected persons with more than 60 years of age. Herpes zoster in older individuals is associate[8]. It is also common in Depending upon the rapidity of immune response, the patients with neoplasms; especially Hodgkin's presentation may vary from no clinical lesions, to typical lymphoma. Recently, varicella zoster infections have zoster, scattered vesicles, zoster sine herpete or been observed in young adults infected with human disseminated zoster.[9]Reactivation may be triggered immunodeficiency virus infection.[10]

AIMS AND OBJECTIVES

To study Prevalence of Herpes Zoster at Dermatology and Venereal Disease Inpatient Department.

MATERIAL AND METHODS

This is cross-sectional, descriptive study All the patients with diagnosis of Herpes Zoster admitted to Dermatology and Venereal Disease Inpatient Department of a Tertiary Care Hospital were included into the study, during Jan 2013 to Jan 2014 this one year's period 120 patients included into the study. All the necessary data was collected by using pretested, semi-structured questionnaire, data was analyzed by Chi-square test, calculated by Graph pad Prism 5.

RESULT:

Table 1: Distribution of the Patients as per Age and Occupation

Age	N0. (%)
<10	3 (2.5%)
11-20	22(18.33%)
21-30	32(26.66%)
31-40	42(34.99%)
41-50	13(10.83%)
>50	8(6.66%)
Total	120(100%)
Occupation	
Labour	38 (31.67%)
Farmer	31(25.83%)
Student	25(20.83)
House wife	21(17.50%)
Drivers	6 (5.00%)
Total	**120(100%)**

Most common age of presentation of the disease was 31-40 (34.99%) followed by 21-30 (26.66%), 11-20 (18.33%), 41-50 (10.83%). Most common occupation was Labour (31.67%), Farmer (25.83%) Student (20.83), House wife (17.50%), Drivers (5.00%).

Table 2: Distribution of the patients as per the involvement of Dermatome in Males and Females

Dermatome	Male	Female	Total
Thoracic	41	21	62 (51.67%)
Cervical	3	10	13(10.83%)
Lumbar	1	4	5(4.16%)
Ophthalmic branch of TN	11	3	14(11.67%)
Maxillary branch of TN	5	7	12(10.00%)
Sacral branch of TN	4	6	9(7.5%)
Mandibular branch of TN	2	4	5(4.1%)
Total	**67(55.83%)**	**55(45.83%)**	**120(100%)**

TN-Trigeminal Nerve

Overall the involvement of the Thoracic dermatome was most common i.e. (51.67%). As per the male and female wise distribution involvement of the Thoracic dermatome was more common in males while cervical and lumbar dermatome was found to be more common in females this difference was statistically significant ($p<0.005 x^2 =0.005$ and $x^2=4.2$, $p<0.04$ respectively.) In all patients prodromal symptoms were noted ;it observed that most common prodromal symptoms in patients were; paresthesia in 38 (31.66%) followed by itching in 29 (24.16%) cases, tingling in 21(17.50%) cases, burning in 19 (15.83%) cases, watering from eyes in 12 (10%) cases and headache and fever in 1 (.83%) case. In presentation most common clinical feature was most common presenting complaint was fever120 (100%), pain in 97 (80.83%) patients followed by localized itching in 32 (26.67%).

DISCUSSION

In our study we have observed that most common age of presentation of the disease was 31-40 (34.99%) followed by 21-30 (26.66%), 11-20 (18.33%), and 41-50 (10.83%). Most common occupation was Labour (31.67%), Farmer (25.83%) Student (20.83), House wife (17.50%), Drivers (5.00%). Overall the involvement of the Thoracic dermatome was most common i.e. (51.67%).As per the male and female wise distribution involvement of the Thoracic dermatome was more common in males while cervical and lumbar dermatome was found to be more common in females this difference was statistically significant ($p<0.005 x^2 =0.005$ and $x^2=4.2$, $p<0.04$ respectively.)In all patients prodromal symptoms were noted ;it observed that most common prodromal symptoms in patients were Most common prodromal symptom was paresthesia in 38(31.66%) followed by itching in 29 (24.16%) cases, tingling in 21 (17.50%)

cases, burning in 19 (15.83%) cases, watering from eyes in 12 (10%) cases and headache and fever in 1 (.83%) case. In presentation most common clinical feature was Most common presenting complaint was fever120 (100%), pain in 97 (80.83%) patients followed by localized itching in 32 (26.67%). These findings are in confirmative with Anand Kumar Dubey *et al*[11,] Kayastha BMM *et al*[12]. Goh and Khoo[13].Where dermatomes most commonly involved were thoracic in 45% and cervical in 23%. Ophthalmic zoster was seen only in 3% cases. Chaudharyetal[14].

CONCLUSION

In our study it found that the most common age of presentation was 31-40, and common in laborer so awareness of mode of transmission should be done in this age group and this data should be used for the management of the patients.

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