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A CLINCAL STUDY OF HERPES ZOSTER IN SAMPLE OF IRAQI PATIENTS (SINGLE CENTER STUDY)

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ABASTRACT

Background: Herpes Zoster (HZ) it is cutaneous viral infection of the skin characterized by unilateral radicular painful vesicular eruption limited to the dermatome innervated by single spinal or cranial sensory ganglion. **Aim of study:** The study was especially designated to throw light on and evaluate the clinical picture of Herpes zoster in Iraqi patients attending Al- Yarmook Teaching Hospital. **Methodology:** A clinical study was carried out on sixty five patients with Herpes Zoster who visited our clinic over six month's period, their ages ranged from 6-85 years with a mean age of 37.4 years. There were 43 males (66.1%) and 22 females (33. 8 %). **Result:** Thoracic dermatomes where the most common dermatomes involved 40 patients (61 .5 o/o) and T10 was the commonest (12 patients) (1 8. 4 %). The pain was the commonest presenting symptom and was seen in 27 patients (41.5%). The common eruption was clear vesiculobullous in 45 patients (69.2%). There was no recognized precipitating factor noticed in 45 patients (69.2%). Five patients after a mean period of five weeks with PHN with their ages ranged from (50-85 years) representing (7.6%), and two patients of the same group presented with scarring lesion of the scalp representing (3%). **Conclusion:** The rash and pain usually subside within three to five weeks, but about one in five people develop a painful condition called post herpetic, which is often difficult to manage.

KEYWORDS: Herpes Zoster, Iraqi Patients,Al-yarmook Teaching Hospital.

INTRODUCTION

Herpes Zoster (HZ) it is cutaneous viral infection of the skin characterized by unilateral radicular painful vesicular eruption limited to the dermatome innervated by single spinal or cranial sensory ganglion.[1,4]

It occurs most frequently in elderly people, in contrast to varicella, which follows primary exogenous VZV infection, H.Z appears to represent reactivation of endogenous infection that has persisted in latent form following an earlier attack of varicella.[1]

H.Z is characterized by several groups of vesicles on an erythematous and edematous base situated unilaterally within the distribution of a cranial or spinal nerve's, it is usually developed without definable incubation period (3, 1 0).
H.Z occurs sporadically throughout the year without seasonal prevalence, it affects both sexes and all races with equal frequency.[1,2]

The rate of occurrence is in the range of 1.3-5 per 1000 persons per years and although the disease may be seen in any age group including children, more than two-thirds of reported cases occur in individuals over 50 years of age and less than 10 percent of cases occur under the age of 20 years.[1,2,11]

The prevalence is estimated at three in 1000 patients and the incidence increase with age between 50 and 70 years approximately 20% of people with experience H.Z by the age of 85 year.[8] The incidence of H.Z in immunosuppressed patients increased 20 to 100 times, and severity of disease is also increased.[1]

H.Z is rare during the first few years of life, there is usually no history of postnatal varicell4 but there is almost always a history of maternal varicella during gestation.[1,4,12,13,1,6]

Recent study showed that H.Z is not related to malignancy, however patient with cancer show more susaptability to have H.Z than normal individual.[1,I,4,1,5]

Varicella Zoster virus cause both HZ and varicella The neuclic acid core is DNA surrounded by protein coat that exhibit icosahedral symmetry.

The nucleo capsid in turn is enclosed in an envelope which contain 162 capsomer.[1,2,3,9]

VZV is transmitted directly by personal contact with chicken pox or shingle lesion by airborne droplet infection.[8]
The mechanism involved in the activation of latent VZV are unclear, but a number of conditions have been associated with occurrence and localization of HZV there are immunosuppression, radiation therapy, chemotherapy, cancer, HIV disease, Lupus erythematosis, rheumatoid arthritis, diabetes mellitus physical trauma (injuries, operation, bum), cold, frontal sinusitis (ophthalmic Zoster), emotion, advanced age, decline in the T- Lymphocyte response to VZY.[1,2,8,16]
The virus multiplies and spread within the ganglion causing neuronal necrosis and intense inflammation, a process that is usually accompanied by severe neuroglia.[1]

HZ occurs with highest frequency in those dermatomes in which the rash of varicella achieves the greatest density.[1]
The symptom of H.Z is pain aching or burning generally localized to dermatome, precedes the eruption by 4-5 days.[1,2,4]

The pain may simulate pleurisy, myocardial infarction or abdominal disease are present a difficult diagnostic problem until the characteristic eruption provides the answer Constitutional symptom of fever, headache, malaise may precede the eruption by several days.

Regional lymph-adenopathy may be present.

These symptoms and segmental pain subside as eruption appears.[3,4]

In healthy individual only symptomic treatment is required Analgesics and application of cool compresses, calamine lotion may help to alleviate local symptoms and hasten the drying of vesicular lesion.[1]

Topical anesthetics such as lida-manthe cream are alleviating the surface discomfort.[3]

Attenuation of acute phase by using oral acyclovir in dose 800mg five times daily for weak found decrease pain and shorten the healing time.[2.3.4]

Systemic antiviral therapy should be started as soon as possible ideally with24-48 hours of the rash appearing.[8]

Zovirax (A cyclovir), famvir (famciclovir) 250 mg tablet three times daily for seven days.[8]

Aim of the study
The study was especially designated to throw light on and evaluate the clinical picture of Herpes zoster in Iraqi patients attending A1- Yarmouk Teaching Hospital.

PATIENTS AND METHODS

A total of 65 patients with H.Z were seen from October 1996 fo April 1997 in department of dermatology and Venerlogy of Al-Yarmouk teaching Hospital.

A detailed medical history was taken from the patients regarding the following points:
Name, age, sex, occupation, Address, Chief complain and duration, history of pre-eruptive stage and present illness in form of symptoms (itching, burning sensation, pain and constitution symptoms, the past medical history (Chronic internal disease as diabetic, malignancy like (lymphoma, leukemia), physical and psychological trauma, past drug history include corticosteroid, immunosuppressive drugs and cytotoxic drugs.

All patients were fully assessed and examined regarding site, number, and type of lesions. Lymph node enlargement and fallowed for 3-5 week for the time of healing and scar formation, post inflammatory pigmentation.

RESULTS

Sixty five patients with H.Z were assessed clinically their age ranged from 6-85 years with a mean age of 37.4 years.
There were male predominance as 43 patients (66.1 %) male and 22patients (33.8%) were female, with male to female ratio of (1.9:1).

The maximum numbers of patients 17 were between 50-59years of age (26.1%) while only 4 patients were below the age of 9 years (6.1%) and between 30-39 years are 4 patients (6.1%), the age between 40-49 years showed the high number of patients are 13 patients (20%).

The thoracic dermatomes were the commonest dermatomes involve in age group 10-19 years is 11 patients (16.9%) and age group 40-49 years are 9 patients (13.8%).

The most common dermatome involvements were noticed in thoracic region 40 patients (61 3 %) of total number followed by lumber' region 10 patients (15.3 %), then cervical region 8 patients (12 .3 %), then trigeminal nerve 7 patients (10.7 %).

Regarding most common thoracic dermatomal involvement, it has been found that T10 is the commonest thoracic dermatome involved 12 patients (30 %) followed byT2.

T6 Six patients (15%) then T5 five patients (12.5 %) the T3, T4. T12 three patients (7.5%), the least dermatomes affected was T8 two (5%) patient.

A 55 years old male with history of Hodgkin's lymphoma Showed dermatomal involvement of right thoracic region (T 10) with chicken pox- like rash over the body (disseminated HZ).

Pain was commonest symptom which was noticed in 27 patients (41.5%) while only 23 patients (35 .5 %) were complain of burning.

Itching was noticed in t0 patients (15.3%), five patients were a symptomatic (7.6%).

In age group between 0-9 years the eruption is mainly symptoms, some of them complain mild pain, absence of pre-eruptive stage healed without scarring in a period ranged from 2-3 weeks.

Three patients presented with herpetic lesions involving the auditory canal and associated with facial palsy i.e. Ramsey hunt syndrome.

The first one presented with painful red eye and there was small erosive erythematous crusted skin lesions at right auricle associated with right facial palsy.

The second case presented with severe earache associated with ipsilarteral facial palsy no skin lesion could be find in the ear.

The third case presented with painful pustuler lesion at the external auditory canal associated with the ipsilarteral facial palsy.

Two patients developed scars after healing and post inflammatory hypopigmentation. One of them developed area of scarring alopecia of tire scalp (ophthalmic branch of trigeminal nerve).

Five patients (7.6%) suffered from post herpetic neuroglia (PHN) their age ranged between 50-85 years.

Most of them presented with severe pain, two of them ulcerative eruption, other two patients with hemorrhagic eruptions one of them with clear vesiculobullous eruption.

Only one of them was immunocomprised with corticosteroid treatment while the rest were immunecomptent.

Table (1): Distribution of 65 patients with H.Z according to their dermatomes involvement.

Age groups years	No Pat.	%	Dermatomes involvement	Total
0- 9	4	6.1%	T10,T5,T6,T10	T= 4
10- 19	11	16.9%	T12,T10,T5,T10,T12,L2,T4,T6,C5,T6,T8	T=9 L=1 C=1
20- 29	8	12.3%	C6,T2,T3,L2,T12,T16,T10.V1	T=5 V=1 L=1 C=1
30- 39	4	6.1%	T10,T2,T3,T10	T=4
40- 49	13	20%	T5,T6,C3,T10.T12,L9,L2,T2,T6,C3,T3,T10,T5	T=9 L=2 C=2
50- 59	17	26.1%	T10,V2,V3,T8,V4,V5,L2,L4,C4,C4,L3,L1,L2,L1,V1,T3,C3,T5	T=4 V=5 C=3 L=5
>60	8	12.3%	V1,T2T5,C7,L3,T10,T10,T4	T=5 V=1 C=1 L=1

Table (2): Most common dermatomes involvement.

Dermatome	No.of patients	%
Thoracic	40	61.3
Lumber	10	15.3
Cervical	8	12.3
Trigeminal	7	10.76

Table (3): Most common thoracic, Lumber, Cervical dermatomes involvement.

Thoracic Dermatomes	No. of patients	%
T10	12	30
T2	6	15
T6	6	15
T5	5	12.5
T3	3	7.5
T4	3	7.5
T12	3	7.5
T8	2	5
Lumber Dermatomes	**No. of patients**	**%**
L2	5	7.6
L3	2	3
L4	2	3
L1	1	1.5
Cervical Dermatomes	**No. of patients**	**%**
C3	3	4.6
C4	2	3
C5	1	1.5
C6	1	1.5
C7	1	1.5

Table (4): Frequency distribution of the patients according to their symptom of 65 patients.

Symptoms	No.of patients	%
Pain	27	41.5
Burning	23	35.3
Itching	10	15.3
Asymptomatic	5	7.6

Table (5): Distribution of the patients according to content of eruption.

Content of Eruption	No. of patients	%
Clear Vesiculobullous	45	69.2
Purulent Vesiculobullous	7	10.7
Hemorrhagic Vesiculobullous	11	16.4
Ulcerative Eruption	2	3

Table (6): The frequency of precipitating factor for reactivation of H.Z.

Precipitating Factor	No. of Patients	%
Without recognized Precipitating Factor	45	69.2
Emotional Stress	15	23
Diabetes Mellitus	3	4.6
Long term Corticosteroid Treatment	2	3

DISCUSSION

Herpes zoster is of the viral skin infection which presented not uncommonly to the dermatology clinic in our hospital.

Ophthalmic zoster was presented in a percentage near to that of western countries (10.76 %) and (10.20%) respectively.

In the current study the thoracic dermatomes is the commonest site of H.Z in Iraqi patient and this similar with other study.

Of the rare presentation of the disease, it was seen presented in three patients in this current study with involvement of geniculate ganglion (Ramsey-hunt syndrome).

The prodromal feature of H.Z could be very misleading regarding diagnosis as some of patients presented as severe headache, chest pain (myocardial infarction like feature), so physician and general surgeon should be aware about this fact.

Childhood H.Z in this study was not uncommon, these patients showed mild form of the disease with the minimal pain and no post herpetic neuralgia, this may

attributed to high immunity in children in comparing with elderly.

Severe pain from beginning and during the course of disease usually followed by post herpetic neuroglia especially in elderly patients and immunocompromised patients receiving corticosteroid.

CONCLUSION

The rash and pain usually subside within three to five weeks, but about one in five people develop a painful condition called post herpetic, which is often difficult to manage.

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