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RESEARCH ARTICLE

KNOWLEDGE, ATTITUDE, BELIEF AND PRACTICES OF PATIENTS WITH HERPES ZOSTER ATTENDING THE OUTPATIENT DEPARTMENT AT TERTIARY CARE CENTRE: A CROSS-SECTIONAL STUDY

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Abstract:

Background: Herpes Zoster (HZ) is a common viral infection, affecting the elderly and immunocompromised individuals. Despite the availability of preventive measures like the HZ vaccine, awareness of the disease and its complications remains limited in various populations. This study aims to assess the awareness and perceptions of Herpes Zoster among patients attending the outpatient department (OPD) at tertiary care centre***Methods:*** A cross-sectional study was conducted from January 2024 to December 2024 in the Department of Dermatology, Venereology, and Leprosy at SRM Medical College Hospital and Research Centre. The study included 128 patients with a clinical diagnosis of Herpes Zoster attending the OPD. Data was collected using a structured questionnaire that covered sociodemographic details, clinical history, and awareness of HZ, its complications, recurrence, and vaccination. Descriptive statistics and Chi-square tests were used for data analysis.***Results:*** Of the 128 participants, 50.8% had heard of Herpes Zoster, but only 25% could correctly recognize it as an viral infection. Knowledge about HZ complications and recurrence was limited, with 31.3% aware of post-herpetic neuralgia. Awareness of the HZ vaccine was low (29.7%), with concerns about side effects and cost being significant barriers. While 66.4% of participants sought medical treatment for HZ, some relied on pharmacists (18%) or traditional healers (7.8%), and 7.8% did not seek treatment.***Conclusion:*** A significant knowledge gap regarding Herpes Zoster among the participants, was noted particularly concerning its complications, recurrence, and preventive measures like vaccination.

Keywords: Herpes Zoster, awareness, vaccination, complications, treatment-seeking behavior, rural population.

INTRODUCTION

Herpes Zoster (HZ), is the reactivation of latent varicella-zoster virus (VZV) causing varicella .[1]. The virus then lies dormant within the dorsal root ganglia and may re-activate later as a consequence of immunosuppression[2] leading to post-herpetic neuralgia (PHN) as a sequalae in considerable patients [3, 4].

HZ is an important public health problem and may lead to neurological complications, herpes zoster ophthalmicus, and secondary infection[7]. Underreporting and absence of national surveillance hinder the incidence reporting of HZ[8].. The recombinant zoster vaccine(RZV) in adults 50 years and above show high efficacy for the prevention of HZ and its complications [9, 10].

Objectives

To assess the knowledge, attitudes, beliefs and practices (KABP) related to Herpes zoster among patients attending a tertiary care outpatient department

MATERIALS AND METHODS

This cross-sectional descriptive study was carried out for a period of one year, from January 2024 to December 2024, in the Department of Dermatology, Venereology, and Leprosy of SRM Medical College Hospital and Research Centre. The research involved 128 patients who presented to the outpatient department (OPD) with a clinical features suggestive of Herpes Zoster (HZ) over the study period. Sample size was calculated using the estimated prevalence of HZ with 95% confidence level. The inclusion criteria were adults aged 18 years and older who agreed to participate, whereas patients with cognitive impairment or those who did not want to participate were excluded. Ethical clearance was obtained from the Institutional Ethics Committee of SRM Medical College Hospital and Research Centre, and all procedures followed ethical standards in human research.

Data was collected by trained investigators through face-to-face interviews using a pre-tested, semi-structured questionnaire that elicited sociodemographic information, clinical history, knowledge about HZ, its complications, recurrence, and knowledge and attitudes

toward vaccination against HZ. The questionnaire was translated into Tamil and validated by translation retranslation method public health and dermatology experts. It was administered in English and Tamil after taking written informed consent.
Data was entered into Microsoft Excel. Descriptive statistics, including frequencies and percentages, were applied to summarize the data.

RESULTS AND OBSERVATIONS:

Table 1 lists the socio-demographic profile of the 128 participants in the study. More than half of the participants were above 50 years (45 ,35.2%), followed by participants aged 36–50 years (38,29.7%). The Table 1 outlines the participants aged 21–35 years made up (35, 27.3%), whereas those below the age of 20 years comprised a mere (10,7.8%). Males dominated the study population (73,57%) more than females (55,43%). According to the area of residence, the majority of the study participants (70,54.7%) came from rural areas, while (55,45.3%) lived in urban areas. According to the Kuppuswamy socioeconomic classification, most of the respondents belonged to the lower class (72,56.2%), followed by the lower middle class (45,35.2%). Only a few were from the upper middle (9,7%) and upper (2,1.6%) classes. This distribution brings out the preponderance of older, rural, and lower socioeconomic status persons among the participants.

The table 2 outlines the participants' knowledge and awareness of Herpes Zoster (HZ). Nearly half of the participants (50.8%) knew of Herpes Zoster, while 49.2% did not know of it. Only 25% correctly identified the cause to be an viral infection , while 37.5% gave incorrect answers and another 37.5% did not know. Fewer than half (46.9%) knew that HZ usually occurs in the elderly and immunocompromised such as diabetes mellitus , while 42.2% knew that the disease can recur. Knowledge of complications such as post-herpetic neuralgia was reported by 31.3% of participants, while 41.4% did not know, and 27.3% had no idea. Most (58.6%) viewed HZ as a dangerous disease, while 45.3% considered it might hospitalize. Of the treatability, 60.2% confirmed that HZ was treatable. An overwhelming majority (66.4%) recognized HZ could impede daily functions, but 19.5% thought that it might kill, reflecting some knowledge gap as to the possibility of severity in complications. This table indicates the partial awareness and lack of knowledge regarding Herpes Zoster, which emphasizes the importance of public education campaigns.

The table 3 shows information on participants' personal history of Herpes Zoster, their exposure through contacts, and their first treatment-seeking behavior. Out of the 128 respondents, (15,11.7%) had a personal history of Herpes Zoster, whereas a much larger percentage (42,32.8%) had a family member or friend who had been affected.

Concerning first treatment when meeting with symptoms of Herpes Zoster, most (66.4%) accessed the physician or hospital as a source of medical attention. 18%, however, used the pharmacists for primary treatment, whereas (10,7.8%) accessed the traditional healers. Most impressively, however, was the observation of (10,7.8%) having failed to seek treatment at all.

These results indicate that while a large part of the population is aware of the necessity for professional medical attention, there is still a dependency on informal care givers and a small but worrying percentage who shun treatment altogether. This highlights the importance of awareness and enhanced healthcare accessibility for Herpes Zoster.

The table 4 illustrates participants awareness and perceptions regarding the Herpes Zoster (HZ) vaccine. Only 29.7% of respondents had heard of the HZ vaccine, indicating low general awareness. Regarding the safety of the vaccine, just 23.4% believed it was safe, while 60.9% were uncertain, and 15.6% believed it was not safe. Similarly, only 21.9% believed the vaccine was effective, while 58.6% did not know about its effectiveness. Despite this limited awareness, 50.8% of participants expressed willingness to receive the vaccine if recommended, highlighting a potentially receptive attitude if proper guidance is provided. Importantly, 60.9% of participants indicated they would follow the advice of a doctor or pharmacist regarding vaccination, suggesting that healthcare providers play a crucial role in influencing vaccine uptake. These findings emphasize the need for targeted education campaigns to improve awareness about Herpes Zoster vaccination, especially focusing on its safety and effectiveness, and leveraging healthcare professionals to improve acceptance.

The Table 5 indicates the main reasons given by participants for not being vaccinated with the Herpes Zoster (HZ) vaccine. The most frequently reported barrier was unawareness, with (90,70.3%) of the respondents indicating that they did not know the vaccine existed. Cost was mentioned by (48,37.5%) of the participants, which is a major economic barrier to vaccine access.

Fear of side effect was cited by (32,25%) of respondents, and this points to the persistence of fears about vaccine safety in affecting decisions. Additional barriers mentioned were perceived seriousness of disease (25,19.5%), lack of regular consultations with doctor (20,15.6%), and religious or cultural concerns (10,7.8%).

These results highlight the need for strong public health education efforts, cost-savings measures, and provider counseling to enhance vaccination rates. Dealing with beliefs about disease severity and vaccine harm, as well as enhancing healthcare access, will be critical in overcoming these challenges.

TABLES

Table 1: Socio-demographic profile of participants

Socio-Demographics	Frequency(n)	Percentage (%)
Age Group		
< 20 years	10	7.8%
21–35 years	35	27.3%
36–50 years	38	29.7%
> 50 years	45	35.2%
Gender		
Male	73	57%
Female	55	43%
Area of Residence		
Rural	70	54.7%
Urban	58	45.3%
Socioeconomic Status		
Upper (I)	2	1.6%
Upper Middle (II)	9	7%
Lower Middle (III)	45	35.2%
Lower (IV)	72	56.2%

Table 2: Awareness and knowledge about herpes zoster (n = 128)

Awareness and Knowledge	Yes	No	Don't Know
Heard of Herpes Zoster	65 (50.8%)	63 (49.2%)	-
Know that it is caused by Varicella virus	32 (25%)	48 (37.5%)	48 (37.5%)
Know that it is common in elderly/immunocompromised	60 (46.9%)	38 (29.7%)	30 (23.4%)
Aware that Herpes Zoster can recur	54 (42.2%)	36 (28.1%)	38 (29.7%)
Know complications like Post-Herpetic Neuralgia	40 (31.3%)	53 (41.4%)	35 (27.3%)
Is Herpes Zoster serious?	75 (58.6%)	20 (15.6%)	33 (25.8%)
Can HZ cause hospitalization?	58 (45.3%)	34 (26.6%)	36 (28.1%)
Is it treatable?	77 (60.2%)	18 (14.1%)	33 (25.8%)
Can it affect daily activities?	85 (66.4%)	22 (17.2%)	21 (16.4%)
Can it lead to death?	25 (19.5%)	60 (46.9%)	43 (33.6%)

Table 3: Personal history, contact, and health-seeking behavior

Personal History, Contact, and Health-Seeking Behavior	Frequency(n)	Percentage (%)
Personal History of Herpes Zoster	15	11.7%
Family/Friend with Herpes Zoster	42	32.8%
First Contact for Treatment		
- Doctor/Hospital	85	66.4%
- Pharmacist	23	18%
- Traditional Healer	10	7.8%
- No treatment	10	7.80%

Table 4: Awareness and attitude toward Herpes Zoster vaccination

Awareness and attitude toward Herpes Zoster vaccination	Yes (%)	No (%)	Don't Know (%)
Heard of HZ vaccine	38 (29.7%)	90 (70.3%)	-
Believe vaccine is safe	30 (23.4%)	20 (15.6%)	78 (60.9%)
Believe vaccine is effective	28 (21.9%)	25 (19.5%)	75 (58.6%)
Willing to get vaccinated if recommended	65 (50.8%)	33 (25.8%)	30 (23.4%)
Would follow doctor/pharmacist advice on vaccine	78 (60.9%)	25 (19.5%)	25 (19.5%)

Table 5: Barriers to Herpes Zoster vaccination

Barrier to vaccination	Frequency (n)	Percentage (%)
Not aware of vaccine	90	70.3%
Concern about side effects	32	25%
Cost of vaccine	48	37.5%
Do not consider HZ serious	25	19.5%
No regular doctor consultation	20	15.6%
Religious/cultural beliefs	10	7.8%

TABLE LEGENDS :

Table 1: Socio-demographic profile of participant

Table 2: Awareness and knowledge about herpes zoster

Table 3: Personal history, contact, and health-seeking behavior

Table 4: Awareness and attitude toward Herpes Zoster vaccination

Table 5: Barriers to Herpes Zoster vaccination

FIGURE LEGENDS

FIGURE 1 : Herpes Zoster – Right T9 dermatome

FIGURE 2 : Herpes Zoster Ophthalmicus – Right V1 dermatome

FIGURE 3 : Herpes Zoster – Right C 5,6,7,8 dermatomes

FIGURE 4 : Herpes zoster - Right T5, T6 dermatomes

DISCUSSION

This research sought to assess the knowledge, attitudes, beliefs, and practices regarding Herpes Zoster among patients with the condition. The results indicate widespread knowledge gaps, disease and vaccine misconceptions, and diverse health-seeking behavior. These findings highlight the importance of focused educational interventions and enhanced healthcare strategies to promote patient awareness and management of Herpes Zoster.

Herpes zoster is an important public health problem with a risk of 20-30% in individuals, rising to 50% in those aged more than 85 years [5,6].Globally, the incidence of HZ increases with age, from 5.23 to 10.9 cases per 1,000 person-years in individuals aged 50 years and older [14]. Our study observation that over half of the participants were above 50 years of age, from rural backgrounds, and from lower socioeconomic groups is consistent with the findings of other studies on Herpes Zoster (HZ). It is well documented that the incidence of HZ increases with age among older adults. Patki et al., reported that a high proportion of (15.0–81.3%) HZ cases occurred in individuals aged over 50 years [8]. Chan et al., on analyzing data from 2018 to 2020 noted that HZ incidence was highest in the 70 to 79 years age group with 829 cases per 100,000 persons [15]. Esteban-Vasallo et al., a study noted that lower socioeconomic status was associated with higher HZ incidence and a clear gradient was seen between women [16]. Rathi et al., noted a slightly higher incidence in metropolitan communities compared to urban or rural communities and 15.0% of HZ cases were in individuals from the lowest socioeconomic quintile [17].

In our research half of the respondents indicated familiarity with Herpes Zoster (HZ), yet only a fourth of them identified the Varicella-Zoster Virus (VZV) correctly as its etiologic virus in agreement with global studies that indicate that there is lack of public knowledge of HZ and its etiologic agent. A global survey by Johnson et al., indicated that even though there was wide variation of awareness of HZ by nation, public knowledge of its cause was low as only 3% of respondents identified chickenpox caused by VZV as its predecessor [11]. Al Shanbari et al., a research in Saudi Arabia indicated that though 78.9% of respondents were aware of HZ, only 7.8% indicated high knowledge of the disease indicating large knowledge gap for its viral etiology [18].

A high percentage of participants were unaware of Herpes Zoster (HZ) complications and recurrence risk is in line with the literature. Johnson et al., reported that although most people were aware of HZ, few knew of its complications, including postherpetic neuralgia (PHN), showing a general lack of knowledge regarding the severity of the disease [11]. Parikh et al., reported that nearly 1.2–9.6% of the population may return with HZ recurrence, and it is even higher in immunocompromised patients. They also determined recurrence risk factors to include immunocompromised status, female gender, family history, and comorbidities like diabetes [10]. Sinha et al., reported that 55.5% of patients complained of post-herpetic, with the most frequent complication being post-herpetic neuralgia [19].

Though 66.4% of the participants were treated medically for Herpes Zoster (HZ), a large number of them visited pharmacists, traditional healers, or did not seek care is in accordance with previous studies of

health-seeking behavior in India. Juneja et al., reported a self-medication rate of 66.4%, where 64.4% of the participants self-medicated as per the prescription of the pharmacist. Convenience and lack of time were the primary reasons for self-medication [20]. Gupta et al., reported that 64.3% of the participants got information for self-medication from pharmacies, and the important role played by pharmacists in health-care decision-making is highlighted [21].

Low awareness of the Herpes Zoster (HZ) vaccine was noted (29.7%), and foremost barriers were side effects, cost, and lack of information is corroborated by existing literature. Baalbaki et al., reports that the majority of participants were aware of the HZ vaccine, yet only 19.1% of participants aged below 60 years and 43.3% of participants aged 60 years and more were aware that they had received a recommendation from their healthcare provider to be vaccinated. The same study indicated a considerably larger percentage of respondents aged below 60 years (62.7%) assumed that HZ vaccine had side effects than the 60 years and older (39.2%). In addition, 35% of total participants had no clue if the HZ vaccine had side effects, stated uncertainty and concern regarding vaccine safety [22]. Goyal et al., evaluates the effectiveness of a health awareness program to improve knowledge and dispel myths regarding Herpes Zoster (HZ) among rural dwellers. Intervention resulted in increased HZ myths awareness and knowledge as well as treatment practice improvement among the rural population in adapted villages of western Maharashtra [23].

Subsequent studies would require incorporating expansion of the study to diverse rural populations to enhance generalizability. Incorporating long-term follow-up assessments would provide data on the long-term efficacy of awareness programs.

CONCLUSION

Low awareness of Herpes Zoster (HZ), particularly its cause, complications, recurrence, and prevention, was brought out by the study. More than half of the participants were over 50 years old, but knowledge and health-seeking behavior were poor. They primarily went to pharmacists or traditional healers rather than physicians. There was low awareness of vaccines with barriers such as fear of side effects, expense, and lack of adequate information. Targeted education and enhanced vaccine availability are needed to lower HZ burden.

Recommendations:

1. Routine screening and vaccination counselling in primary care settings.
2. Inclusion of HZ vaccine in adult immunization schedules.
3. Public health awareness campaigns focused on older adults and diabetics

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