



RESEARCH ARTICLE

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CLINICAL CHARACTERISTICS, TIMING OF HOSPITAL PRESENTATION AND ANXIETY SYMPTOMS AMONG HOSPITALIZED PATIENTS WITH ACUTE HERPES ZOSTER

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ABSTRACT

Background: Herpes zoster is an acute painful disease in which timely clinical assessment is important, but data on hospital presentation, pre-admission care, pain, and anxiety symptoms among hospitalized patients in Vietnam remain limited. **Objectives:** To describe clinical characteristics, timing of hospital presentation, and anxiety symptoms at admission, with exploratory analyses of factors related to presentation timing and GAD-7 scores. **Subjects and Methods:** This cross-sectional baseline analysis included 40 hospitalized patients with herpes zoster at Can Tho City Dermatology Hospital from July 2025 to April 2026. Clinical variables, pain using the 0-10 Numeric Rating Scale, and anxiety symptoms using the GAD-7 were assessed before in-hospital medication and cold atmospheric plasma. **Results:** The mean age was 61.90 ± 13.47 years, and 70.0% were female. Thirty-two patients (80.0%, 95% CI 65.2-89.5%) were admitted more than 3 days after rash onset. Pain was reported by 90.0%, and the mean pain score was 4.95 ± 2.14 . The mean GAD-7 score was 6.68 ± 3.35 , 12.5% had GAD-7 scores ≥ 10 and 72.5% scored ≥ 5 . Pre-admission care differed by presentation timing ($p < 0.001$). Exploratory analyses showed higher GAD-7 scores among patients aged < 60 years and those admitted within 3 days, whereas pain and GAD-7 scores were not significantly correlated. **Conclusions:** Most patients in this hospital-based sample were admitted more than 3 days after rash onset. Pain was common, while moderate-or-greater anxiety symptom severity was present in a minority. The exploratory associations require confirmation in larger studies.

Key words: herpes zoster, hospital presentation, pre-admission care, anxiety, GAD-7.

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1. Introduction

Herpes zoster (HZ), or shingles, results from reactivation of latent varicella-zoster virus in sensory or cranial nerve ganglia. It typically presents as a unilateral painful vesicular eruption distributed along one or several dermatomes. The incidence and clinical burden increase with age and immunosuppression, and complications such as postherpetic neuralgia (PHN), ophthalmic involvement, and neurologic manifestations may occur [1-3].

Beyond cutaneous lesions, acute HZ can impair sleep, mobility, daily activities, emotional well-being, and health-related quality of life [4-6]. A recent Vietnamese multicenter cost-of-illness study also demonstrated a substantial health-care burden of HZ and its complications, particularly among older and hospitalized patients [7]. Psychological symptoms are clinically relevant during acute HZ. In a previous study conducted in Can Tho, the mean GAD-7 score was 5.65 ± 3.01 , 60.5% of patients scored at least 5, with mild symptoms being most common [8].

Timing of care is also clinically relevant. Antiviral therapy is generally most effective when initiated early, particularly within approximately 72 hours after rash onset, although treatment may still be appropriate later in selected patients [2, 9]. A recent Southeast Asian expert review of HZ patient pathways noted that self-treatment and alternative or traditional care may precede formal medical consultation and may contribute to late presentation in several countries, including Vietnam [10]. However, patient-level data describing timing of hospital presentation and pre-admission care among hospitalized patients with HZ in Vietnam remain limited.

Therefore, this study aimed to describe the clinical characteristics, timing of hospital presentation, and anxiety symptoms at admission among hospitalized patients with acute herpes zoster at Can Tho City Dermatology Hospital from July 2025 to April 2026. Exploratory analyses were also performed to examine factors related to presentation timing and GAD-7 scores.

2. Materials and Methods

2.1. Materials

Patients clinically diagnosed with herpes zoster and hospitalized in the Inpatient Department of Can Tho City Dermatology Hospital from July 2025 to April 2026 were considered for inclusion.

Inclusion criteria

Clinical diagnosis of herpes zoster was established according to the Vietnamese Ministry of Health's 2023 Guidelines for the Diagnosis and Treatment of Dermatologic Diseases, issued under Decision No. 4416/QĐ-BYT dated December 6, 2023 [11]. It required grouped vesicles or bullae on an erythematous base in a typically unilateral dermatomal distribution, accompanied by pain or sensory disturbance in the affected area. Patients were hospitalized at Can Tho City Dermatology Hospital, met the eligibility requirements of the parent study, and provided written informed consent.

Exclusion criteria

Patients were excluded if language impairment precluded completion of the interview, if a psychiatric disorder or sleep disturbance predating the herpes zoster rash was identified through patient interview and review of available medical records. These exclusions were defined by the parent-study protocol. Their potential effect on the observed anxiety symptom burden is addressed as a study limitation.

2.2. Methods

Study design and relationship to the parent study

The present article is a cross-sectional analysis of pre-treatment baseline data from the parent research project entitled "Study of clinical characteristics, anxiety severity, and treatment outcomes of herpes zoster using a regimen incorporating cold atmospheric plasma". The parent study had three original objectives: (1) to describe the clinical characteristics of patients with herpes zoster, (2) to describe the severity of anxiety symptoms in patients with herpes zoster and (3) to evaluate treatment outcomes in patients with herpes zoster receiving the regimen incorporating CAP. All 40 participants subsequently received the parent-study regimen. The present article reports only the pre-treatment baseline data relevant to objectives 1 and 2. Treatment effectiveness, safety, and longitudinal outcomes corresponding to objective 3 are not analyzed in this article and are intended for separate reporting without duplication of the present baseline analyses.

Sampling and study size

Convenience sampling was used. Forty patients met the eligibility criteria of the parent study during the study period, and all 40 were included in this baseline analysis. The analytic dataset did not contain the total number of patients hospitalized with herpes zoster during the period or a count of patients excluded before enrollment. Therefore, a complete screening flow across all herpes zoster admissions could not be

reconstructed. No separate sample-size calculation was performed for this baseline descriptive analysis. The study size reflected the eligible participants available for this report, and 95% confidence intervals (CIs) were provided for key descriptive estimates to show the precision of the sample estimates.

Study variables and measurements

General variables included age, sex, educational level, and place of residence. Clinical variables included lesion location and laterality, fever, fatigue, burning sensation, pain, pruritus, erythema, vesicles/bullae, pustules, crusting, erosion/ulceration, time from rash onset to hospital admission, and pre-admission care.

Timing of hospital presentation was defined as the number of days from the first appearance of a vesicle or rash to hospital admission. The parent study did not impose a maximum illness-duration criterion. For descriptive and exploratory analyses, presentation timing was categorized as ≤ 3 days or >3 days after rash onset.

Pre-admission care was coded into four mutually exclusive categories as recorded on the study form: (1) no previous treatment, defined as no therapeutic measure used before admission, (2) non-dermatologic medical care, defined as evaluation or treatment by a medical provider or health-care facility outside dermatology, (3) dermatologic care, defined as evaluation or treatment by a dermatologist or at a dermatology specialty facility and (4) traditional treatment, defined as traditional, herbal, or folk treatment used before admission. Because only one category was recorded for each participant, this variable represents the principal category documented before admission and may not capture multiple sequential sources of care.

Pain intensity was assessed using an 11-point Numeric Rating Scale (NRS) from 0 (no pain) to 10 (worst imaginable pain) [12]. According to the prespecified study protocol, pain was categorized as 0: no pain, 1-3: mild pain, 4-6: moderate pain and 7-10: severe pain.

Anxiety symptoms were assessed with the 7-item Generalized Anxiety Disorder scale (GAD-7) developed by Spitzer et al. [13]. The Vietnamese-for-Vietnam translation provided by UNC Vietnam in 2024 was used [14]. A study researcher administered the questionnaire as a structured interview and read each item to the participant. The standard 2-week recall period was retained. Each item is scored from 0 to 3, yielding a total score from 0 to 21. Severity categories were 0-4: no/minimal symptoms, 5-9: mild symptoms, 10-14: moderate symptoms and 15-21:

severe symptoms. A score ≥ 10 was reported as the main indicator of moderate-or-greater anxiety symptom severity, while ≥ 5 was retained as a secondary descriptive threshold indicating at least mild symptoms. The GAD-7 is a screening instrument and was not used to establish a psychiatric diagnosis. The Vietnamese translation has not been specifically validated in hospitalized patients with acute herpes zoster.

All clinical measurements, the NRS, and the GAD-7 included in this analysis were obtained after hospital admission but before administration of in-hospital medication and before the first CAP session. They were therefore treated as baseline pre-treatment measurements and were not used to evaluate treatment effectiveness.

2.3. Statistic

Data were collected using a structured study form through patient interview, clinical examination, and review of relevant medical records. Categorical variables were summarized as frequencies and percentages. Continuous variables were summarized using mean $\pm$ standard deviation (SD) and range for descriptive reporting, medians and interquartile ranges (IQRs) were used for exploratory between-group comparisons because of the small group sizes. Wilson 95% CIs were calculated for categorical proportions, and two-sided 95% CIs for means were calculated using the t distribution.

Exploratory analyses compared patients admitted ≤ 3 days versus >3 days after rash onset using the Mann-Whitney U test for continuous variables and Fisher exact tests for 2 x 2 categorical comparisons. The Fisher-Freeman-Halton exact test was used for the 2 x 4 table comparing pre-admission care categories. Exploratory analyses of GAD-7 scores examined sex, age group (<60 versus ≥ 60 years), head/face/neck involvement, presentation timing, and correlation with NRS pain scores. Spearman rank correlation was used for NRS and GAD-7 scores. All tests were two-sided. Because these analyses were exploratory and hypothesis-generating, p-values were not adjusted for multiple comparisons. A two-sided $p < 0.05$ was used as an exploratory threshold rather than as confirmatory evidence. Analyses were conducted using IBM SPSS Statistics version 27.0.

2.4. Research Ethics

The parent study was approved by the Biomedical Research Ethics Committee of Can Tho University of

Medicine and Pharmacy under approval number 25.059.HV-ĐHYDCT. All participants received information about the study, their right to refuse participation, and confidentiality protections, and provided written informed consent. Data were used only for scientific purposes. The present report represents a baseline analysis within the approved parent study.

3. Results

A total of 40 hospitalized patients with acute herpes zoster were included in the present baseline analysis.

3.1. General Characteristics

Table 1. General characteristics of patients with acute herpes zoster (n = 40)

Characteristic	n (%) or Mean $\pm$ SD	95% CI
Age, years	61.90 $\pm$ 13.47	57.59-66.21
Range, years	18-84	
18-59 years	12 (30.0)	18.1-45.4%
≥ 60 years	28 (70.0)	54.6-81.9%
Sex		
Female	28 (70.0)	54.6-81.9%
Male	12 (30.0)	18.1-45.4%
Residence		
Can Tho City	23 (57.5)	42.2-71.5%
Other provinces	17 (42.5)	28.5-57.8%
Educational level		
No formal schooling	0 (0.0)	0.0-8.8%
Primary school	6 (15.0)	7.1-29.1%
Lower secondary school	24 (60.0)	44.6-73.7%
Upper secondary school	3 (7.5)	2.6-19.9%
Vocational/college/university/postgraduate	7 (17.5)	8.7-31.9%

The mean age was 61.90 $\pm$ 13.47 years (95% CI 57.59-66.21), and 70.0% of patients were aged 60 years or older (95% CI 54.6-81.9%). Women accounted for 70.0% (95% CI 54.6-81.9%) of the study population. Seventy-five percent had no more than lower-secondary education (95% CI 59.8-85.8%).

3.2. Clinical characteristics and timing of hospital presentation

Table 3. Clinical manifestations, lesion characteristics, and timing of hospital presentation (n = 40)

Characteristic	n (%) or Mean $\pm$ SD	95% CI
Anatomic location		
Head/face/neck	7 (17.5)	8.7-31.9%
Thoracic/intercostal region	14 (35.0)	22.1-50.5%
Upper limb	4 (10.0)	4.0-23.1%
Abdomen/flank/genital region	7 (17.5)	8.7-31.9%
Lower limb	8 (20.0)	10.5-34.8%

Characteristic	n (%) or Mean $\pm$ SD	95% CI
Laterality		
Right	18 (45.0)	30.7-60.2%
Left	22 (55.0)	39.8-69.3%
Symptoms		
Fever	4 (10.0)	4.0-23.1%
Fatigue	14 (35.0)	22.1-50.5%
Burning sensation	33 (82.5)	68.1-91.3%
Pain	36 (90.0)	76.9-96.0%
Pruritus	4 (10.0)	4.0-23.1%
Time from rash onset to hospital admission, days	3.98 $\pm$ 0.77	3.73-4.22
Range, days	2-5	
≤ 3 days	8 (20.0)	10.5-34.8%
> 3 days	32 (80.0)	65.2-89.5%
Cutaneous lesions		
Erythema	37 (92.5)	80.1-97.4%
Vesicles/bullae	36 (90.0)	76.9-96.0%
Pustules	9 (22.5)	12.3-37.5%
Crusts	3 (7.5)	2.6-19.9%
Erosions/ulcers	7 (17.5)	8.7-31.9%

Pain was reported by 90.0% (95% CI 76.9-96.0%) and burning sensation by 82.5% (95% CI 68.1-91.3%). The mean time from rash onset to hospital admission was 3.98 $\pm$ 0.77 days (95% CI 3.73-4.22), 32 patients (80.0%, 95% CI 65.2-89.5%) were admitted more than 3 days after rash onset. Erythema was present in 92.5% (95% CI 80.1-97.4%) and vesicles/bullae in 90.0% (95% CI 76.9-96.0%).

3.3. Pain severity and pre-admission care

A 54-year-old man presented with acute dysarthria and facial asymmetry, followed several hours later by right-sided hemiparesis and a decreased level of consciousness.

Table 3. NRS pain severity and pre-admission care (n = 40)

Characteristic	n (%) or Mean $\pm$ SD	95% CI
NRS pain score	4.95 $\pm$ 2.14	4.27-5.63
Range	0-9	
No pain	4 (10.0)	4.0-23.1%
Mild pain	4 (10.0)	4.0-23.1%
Moderate pain	27 (67.5)	52.0-79.9%
Severe pain	5 (12.5)	5.5-26.1%
Pre-admission care		
No previous treatment	6 (15.0)	7.1-29.1%
Non-dermatologic medical care	23 (57.5)	42.2-71.5%
Dermatologic care	3 (7.5)	2.6-19.9%
Traditional treatment	8 (20.0)	10.5-34.8%

The mean NRS pain score was 4.95 $\pm$ 2.14 (95% CI 4.27-5.63). Moderate pain was the predominant category (67.5%, 95% CI 52.0-79.9%). Before admission, 57.5% had received non-dermatologic

medical care (95% CI 42.2-71.5%), 20.0% had used traditional treatment (95% CI 10.5-34.8%), 15.0% had received no previous treatment (95% CI 7.1-29.1%), and 7.5% had received dermatologic care (95% CI 2.6-19.9%).

3.4. Anxiety symptoms at admission

Table 4. GAD-7 screening results at admission (n = 40)

Characteristic	n (%) or Mean $\pm$ SD	95% CI
GAD-7 score	6.68 $\pm$ 3.35	5.60-7.75
Range	1-13	
No/minimal symptoms (0-4)	11 (27.5)	16.1-42.8%
Mild symptoms (5-9)	24 (60.0)	44.6-73.7%
Moderate symptoms (10-14)	5 (12.5)	5.5-26.1%

Characteristic	n (%) or Mean $\pm$ SD	95% CI
Severe symptoms (15-21)	0 (0.0)	0.0-8.8%
At least mild symptoms (GAD-7 $\geq$ 5)	29 (72.5)	57.2-83.9%
Moderate-or-greater symptoms (GAD-7 $\geq$ 10)	5 (12.5)	5.5-26.1%

The mean GAD-7 score was 6.68 $\pm$ 3.35 (95% CI 5.60-7.75). Five patients (12.5%, 95% CI 5.5-26.1%) had moderate-or-greater anxiety symptom severity (GAD-7 $\geq$ 10). Twenty-nine patients (72.5%, 95% CI 57.2-83.9%) scored $\geq$ 5, 24 patients (60.0%, 95% CI 44.6-73.7%) were in the mild range. No patient had a score in the severe range (0.0%, 95% CI 0.0-8.8%).

3.5. Exploratory analyses

Table 5. Exploratory analyses of presentation timing and GAD-7 scores

Variable	$\leq$ 3 days (n = 8)	>3 days (n = 32)	p-value
Age, years, median (IQR)	64.5 (58.5-73.5)	64.5 (56.8-68.3)	0.588
Male sex, n (%)	1 (12.5)	11 (34.4)	0.396
Residence in Can Tho, n (%)	5 (62.5)	18 (56.3)	1.000
Lower secondary education or less, n (%)	6 (75.0)	24 (75.0)	1.000
Head/face/neck involvement, n (%)	2 (25.0)	5 (15.6)	0.611
NRS score, median (IQR)	6.0 (5.0-6.0)	5.0 (4.8-6.0)	0.317
GAD-7 score, median (IQR)	8.5 (7.8-9.0)	7.0 (3.0-8.0)	0.017
Pre-admission care			<0.001
No previous treatment	5 (62.5)	1 (3.1)	
Non-dermatologic medical care	2 (25.0)	21 (65.6)	
Dermatologic care	1 (12.5)	2 (6.3)	
Traditional treatment	0 (0.0)	8 (25.0)	
Exploratory associations with GAD-7 scores at admission			
Sex	Female: 7.0 (3.0-8.0)	Male: 7.5 (5.8-9.0)	0.520
Age group	<60 years: 8.0 (7.0-11.5)	$\geq$ 60 years: 7.0 (3.0-8.0)	0.019
Head/face/neck involvement	No: 7.0 (5.0-8.0)	Yes: 7.0 (2.5-7.5)	0.482
Timing of hospital presentation	$\leq$ 3 days: 8.5 (7.8-9.0)	>3 days: 7.0 (3.0-8.0)	0.017
Correlation with NRS pain score	Spearman rho = 0.254		0.114

*** Note:** Continuous variables were compared with Mann-Whitney U tests, 2 x 2 categorical variables with Fisher exact tests and the 2 x 4 pre-admission care table with the Fisher-Freeman-Halton exact test. The NRS-GAD-7 association used Spearman rank correlation. Analyses were exploratory and p-values were not adjusted for multiple comparisons.

Pre-admission care differed according to timing of hospital presentation ($p < 0.001$). Among patients admitted $\leq$ 3 days after rash onset, 62.5% had received no previous treatment, compared with 3.1% among those admitted >3 days. Conversely, non-dermatologic medical or traditional care was recorded in 25.0% of the $\leq$ 3-day group and 90.6% of the >3-day group. GAD-7 scores were also higher in the $\leq$ 3-

day group than in the >3-day group (median 8.5 versus 7.0, $p = 0.017$). Other examined baseline characteristics did not show statistically significant differences by presentation timing.

GAD-7 scores were higher in patients aged <60 years than in those aged $\geq$ 60 years (median 8.0 versus 7.0, $p = 0.019$) and were higher in patients admitted $\leq$ 3 days after rash onset than in those

admitted >3 days (median 8.5 versus 7.0, $p=0.017$). No statistically significant differences were observed by sex or head/face/neck involvement. The correlation between NRS pain and GAD-7 scores was positive but not statistically significant ($\rho=0.254$, $p=0.114$).

4. Discussion

4.1. General characteristics, timing of presentation, and pre-admission care

The mean age was 61.90 years, and 70.0% of participants were aged 60 years or older. This distribution is consistent with the well-established increase in HZ risk with advancing age, related in part to declining VZV-specific cell-mediated immunity [1, 15]. Women represented 70.0% of the sample, because the study used convenience sampling at a single hospital, this should be interpreted as a description of the enrolled inpatient population rather than evidence of sex-specific population risk.

A clinically notable finding was that 80.0% of patients were admitted more than 3 days after rash onset. Early antiviral initiation is generally emphasized, particularly within approximately 72 hours after rash onset, although treatment beyond this interval may remain appropriate in selected patients [2, 9]. Importantly, the present study recorded time to hospital admission rather than time to antiviral initiation. Therefore, admission >3 days should not be interpreted as evidence that antiviral therapy was necessarily delayed.

Only 7.5% of patients had received dermatologic care before admission, whereas non-dermatologic medical care and traditional treatment accounted for 57.5% and 20.0%, respectively. Regional expert work has similarly suggested that self-treatment or alternative care may precede formal consultation in HZ patient pathways in Southeast Asia [10]. In the present exploratory analysis, pre-admission care differed substantially by presentation timing. However, this association is descriptive of the care pathway and does not establish that a particular type of prior care caused later admission. In addition, the study form recorded only one principal pre-admission care category, whereas patients may in practice use several sequential sources of care.

4.2. Clinical manifestations and pain

Pain and burning sensation were reported by 90.0% and 82.5% of patients, respectively, while erythema and vesicles/bullae were the predominant cutaneous findings. These findings are compatible with the neuropathic and inflammatory features of acute HZ [1, 2]. The mean NRS pain score was 4.95,

and moderate pain was the most common severity category. Previous prospective studies have shown that acute HZ pain can interfere with physical, emotional, and social functioning and contribute substantially to disease burden [5, 6].

The present analysis used an 11-point NRS rather than a visual analog scale. This distinction is important because the NRS requires selection of an integer from 0 to 10, whereas a traditional VAS uses a continuous line, usually measured in millimeters [12]. The pain-severity bands in this study were prespecified categories in the study protocol.

4.3. Anxiety symptoms and exploratory associations

The mean GAD-7 score was 6.68. Using the original GAD-7 severity categories, 12.5% of patients had moderate-or-greater anxiety symptom severity ($\text{GAD-7} \geq 10$), while 72.5% scored at least 5, predominantly within the mild range. The latter proportion was numerically higher than the 60.5% reported in the earlier Can Tho study, but the two samples differed in setting and participant characteristics and were not formally compared [8]. These results should therefore be interpreted as descriptive findings rather than population prevalence estimates.

The standard GAD-7 asks about symptoms during the previous 2 weeks [13]. In this study, the recorded interval from the first vesicle or rash to hospital admission was only 2-5 days. Consequently, much of the GAD-7 recall period preceded the acute rash, and the observed scores may reflect pre-existing anxiety symptoms as well as distress associated with the current illness and hospitalization. Some GAD-7 items, including restlessness and difficulty relaxing, may also overlap with nonspecific distress related to acute pain or hospitalization. The findings therefore cannot be interpreted as anxiety caused by acute herpes zoster. Validation work in Vietnam indicates that screening performance and optimal cutoffs may vary across populations [16], and the translation used here has not been specifically validated in hospitalized patients with acute herpes zoster. A GAD-7 score ≥ 10 should prompt further clinical assessment [13] and, when indicated, referral to an appropriate mental-health professional, it does not by itself establish a psychiatric diagnosis.

In exploratory analyses, patients aged <60 years had higher GAD-7 scores than those aged ≥ 60 years, and patients admitted ≤ 3 days after rash onset had higher GAD-7 scores than those admitted later. The latter direction was not anticipated and may reflect differences in help-seeking behavior or other unmeasured factors, given the small early-

presentation group, the result should be considered hypothesis-generating only. NRS pain and GAD-7 scores were not significantly correlated in this sample. Although anxiety during acute HZ has been linked with subsequent outcomes in some longitudinal studies [17], the cross-sectional baseline design of the present analysis cannot establish temporal or causal relationships.

4.4. Strengths and limitations

A strength of this study is the standardized pre-treatment assessment of clinical findings, pain, anxiety symptoms, and presentation timing in hospitalized patients at a specialized dermatology hospital. The analysis also describes pre-admission care, an aspect of the HZ patient pathway for which patient-level data in Vietnam remain limited.

Several limitations should be acknowledged. First, the sample was small, drawn from a single center by convenience sampling, and restricted to participants in the parent study who received the CAP-containing regimen. The total number of herpes zoster admissions and the number excluded before enrollment were not available in the analytic dataset, selection into the cohort therefore cannot be fully characterized. Key estimates have wide confidence intervals and limited generalizability. Second, this is a cross-sectional baseline analysis from a larger treatment study. It contains no longitudinal outcomes and cannot assess the effectiveness or safety of CAP or any other treatment component. Third, the 2-week GAD-7 recall period extended beyond the 2-5 days from rash onset to admission, preventing attribution of anxiety symptoms specifically to herpes zoster. Excluding patients with a history of psychiatric disorders or pre-existing sleep disturbance may also have reduced the observed anxiety symptom burden. Fourth, pre-admission care was recorded as one mutually exclusive principal category and may not represent multiple sequential care sources. The dataset did not include sufficient detail on comorbidities, immunosuppression, specific pre-admission antiviral or analgesic treatment, or the exact timing of antiviral initiation. Presentation after 3 days therefore cannot be equated with delayed antiviral treatment, and residual confounding could not be assessed. Finally, the exploratory analyses involved small subgroups and multiple unadjusted comparisons, their findings require confirmation in larger, prospectively recruited studies.

5. Conclusion

In this hospital-based baseline sample of 40 patients with acute herpes zoster, most were admitted more than 3 days after the first vesicle or rash, and

recorded patterns of pre-admission care differed by presentation timing. Pain was common and was most often moderate. Moderate-or-greater anxiety symptom severity on screening was present in a minority of participants, whereas milder symptoms were more frequent. Because the GAD-7 recall period preceded rash onset for much of its 2-week window, these scores cannot be attributed specifically to herpes zoster. The observed age- and presentation-timing differences in GAD-7 scores are hypothesis-generating. Larger multicenter studies with consecutive recruitment, complete screening logs, detailed treatment timing, and longitudinal follow-up are needed.

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Declaration of Competing Interest

We declare that all authors have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Declaration of Generative AI and AI-Assisted Technologies

We declare that no artificial intelligence (AI) was used during the research process or in the writing of this manuscript.

Author Contributions

Hong Khoa Trang: Study implementation, data collection, data analysis, literature collection and synthesis and manuscript drafting. Thi Kim Loan Vo and Van Thong Nguyen: Conceptualization, study design, scientific supervision, manuscript review and editing. All authors read and approved the final manuscript.

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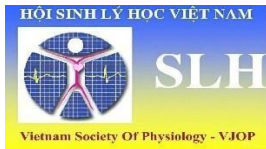
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ĐẶC ĐIỂM LÂM SÀNG, THỜI ĐIỂM ĐẾN BỆNH VIỆN VÀ TRIỆU CHỨNG LO ÂU Ở BỆNH NHÂN NHẬP VIỆN DO ZONA

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TÓM TẮT

Tổng quan: Zona là bệnh cấp tính gây đau, trong đó việc đánh giá và điều trị kịp thời có vai trò quan trọng. Tuy nhiên, dữ liệu về thời điểm đến bệnh viện, chăm sóc trước nhập viện, đau và triệu chứng lo âu ở bệnh nhân zona điều trị nội trú tại Việt Nam còn hạn chế. **Mục tiêu:** Mô tả đặc điểm lâm sàng, thời điểm đến bệnh viện và triệu chứng lo âu khi nhập viện, đồng thời khảo sát một số yếu tố liên quan đến thời điểm nhập viện và điểm GAD-7. **Đối tượng và phương pháp:** Nghiên cứu cắt ngang trên 40 bệnh nhân zona điều trị nội trú tại Bệnh viện Da liễu Thành phố Cần Thơ từ tháng 7/2025 đến tháng 4/2026. Đặc điểm lâm sàng, mức độ đau theo thang điểm số 0–10 và triệu chứng lo âu theo GAD-7 được đánh giá trước khi điều trị tại bệnh viện. **Kết quả:** Tuổi trung bình là $61,90 \pm 13,47$ tuổi, nữ chiếm 70,0%. Có 32 bệnh nhân (80,0%, KTC 95%: 65,2–89,5%) nhập viện sau hơn 3 ngày kể từ khi khởi phát phát ban. Đau gặp ở 90,0% bệnh nhân, với điểm đau trung bình $4,95 \pm 2,14$. Điểm GAD-7 trung bình là $6,68 \pm 3,35$, trong đó 12,5% có GAD-7 ≥ 10 và 72,5% có GAD-7 ≥ 5 . Chăm sóc trước nhập viện khác biệt theo thời điểm nhập viện ($p < 0,001$). Điểm GAD-7 cao hơn ở bệnh nhân dưới 60 tuổi và những bệnh nhân nhập viện trong vòng 3 ngày. Không ghi nhận tương quan có ý nghĩa thống kê giữa điểm đau và GAD-7. **Kết luận:** Phần lớn bệnh nhân zona nhập viện sau hơn 3 ngày kể từ khi khởi phát phát ban. Đau thường gặp, trong khi triệu chứng lo âu mức độ từ trung bình trở lên chỉ chiếm tỷ lệ nhỏ. Các mối liên quan ghi nhận trong phân tích thăm dò cần được xác nhận bằng các nghiên cứu có cỡ mẫu lớn hơn.

Từ khóa: Zona, thời điểm nhập viện, chăm sóc trước nhập viện, lo âu, GAD-7.