



Research Article

Disease Spectrum Characteristics and Differences Between Internal Medicine and Surgery in 1285 Elderly Inpatients with Dermatological Consultation

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Abstract

Objective to analyze the disease spectrum, demographic and departmental distribution characteristics of dermatological consultations among elderly inpatients, and compare the differences between internal medicine and surgical departments, so as to provide evidence for multidisciplinary management of cutaneous disorders in older adults and clinical teaching. Methods Clinical data of dermatological consultations for elderly inpatients aged ≥ 60 years at Guangzhou Red Cross Hospital from January to December 2024 were retrospectively collected. Patient age, gender, requesting department and consultation diagnosis were recorded. Diseases were classified uniformly, and comparisons were performed between the internal medicine system and surgical system. Statistical analyses were conducted using SPSS 26.0. Results A total of 1,285 patients were enrolled with a male-to-female ratio of 1.38:1 and a mean age of (76.2 ± 9.3) years. Dermatitis and eczema ranked first (32.8%), followed by sexually transmitted diseases (12.9%) and viral dermatoses (8.7%). With advancing age, the proportions of dermatitis/eczema and pruritic dermatoses increased, while the proportion of drug eruptions decreased (all $P < 0.05$). No significant gender-based difference was observed in the disease spectrum ($P > 0.05$). The top 10 departments requesting consultations all belonged to the internal medicine system. The proportion of sexually transmitted diseases in surgical departments was significantly higher than that in internal medicine departments (21.2% vs 10.6%, $P < 0.001$). Dermatitis and eczema were more prevalent in internal medicine, whereas drug eruptions were more common in surgery (both $P < 0.05$). Conclusion Dermatoses encountered during dermatological consultations for elderly inpatients exhibit distinct age- and department-specific distribution patterns. Clinicians should strengthen multidisciplinary collaboration, prioritize the prevention and management of infectious and drug-related cutaneous diseases, standardize basic skin care for hospitalized older adults, and adjust the focus of dermatology residency training accordingly.

Keywords

Aged, Inpatients, Dermatological Consultation, Disease Spectrum, Multidisciplinary Collaboration

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1. Main Text

With the continuous acceleration of population aging in China, the medical demands of the elderly are growing prominently. Physiological functions of multiple organ systems gradually decline in older adults, multimorbidity is common, and the hospitalization rate is markedly higher than that of other age groups. As the largest human organ, the skin undergoes substantial structural and functional changes with aging, rendering the elderly susceptible to a wide variety of dermatoses [1]. Dermatological consultation is a vital approach for general hospitals to manage cutaneous diseases in hospitalized patients, enabling definitive diagnosis and guiding therapeutic strategies [2, 3]. Departments admitting elderly patients differ in the composition of underlying diseases, leading to heterogeneity in the types and features of concomitant skin lesions. Clarifying these discrepancies helps improve the pertinence and efficiency of dermatological consultations and supports clinical practice in various departments.

Meanwhile, alongside the reform of medical education, dermatology is an essential rotation discipline for clinical internships and standardized residency training, and teaching content should be closely aligned with real clinical scenarios. High-frequency dermatoses identified via consultations for elderly inpatients, including dermatitis and eczema, syphilis, herpes zoster, pruritic dermatoses, fungal infections and drug eruptions, are the most commonly encountered cutaneous conditions for primary care physicians and specialists. Therefore, systematic analysis of the disease spectrum and departmental distribution of dermatological consultations among elderly inpatients carries clinical implications for standardized diagnosis and treatment as well as great value for medical talent training.

On this basis, this retrospective study analyzed clinical data from 1,285 elderly inpatients aged ≥ 60 years receiving dermatological consultations in a tertiary general hospital. We summarized the composition of the disease spectrum, age and gender distribution, characteristics of consultation-requesting departments, and focused on the comparison between internal medicine and surgical departments. This study aims to provide evidence for standardized management of skin diseases in elderly inpatients, multidisciplinary diagnosis and treatment, and clinical teaching.

2. Materials and Methods

2.1. Study Participants

All dermatological consultation records at Guangzhou Red Cross Hospital between January 2024 and December 2024 were collected. Inclusion criteria: (1) age ≥ 60 years; (2) complete consultation records including requesting department, age, gender and consultation diagnosis. Exclusion criterion: cases with missing key consultation information. This retrospective medical record review was approved by the Ethics Committee of our hospital, and informed consent was waived.

Ultimately, 1,285 cases were included.

2.2. Data Collection

Two dermatology residents independently extracted information from each consultation record, including requesting department, patient age, gender and consultation diagnosis. Diagnostic nomenclature was categorized in accordance with Dermatology and Venereology (9th edition): “dermatitis”, “eczema” and “allergic dermatitis” were uniformly classified as dermatitis and eczema; “herpes zoster”, “herpes simplex” and “viral warts” were grouped as viral dermatoses; diagnoses such as “latent syphilis”, “suspected syphilis”, “history of syphilis” and “neurosyphilis” were categorized under sexually transmitted diseases. Data extracted by the two researchers were cross-checked, and discrepancies were resolved by a senior attending dermatologist.

2.3. Department Classification

To facilitate comparison between internal medicine and surgery, consultation-requesting departments were divided into the internal medicine system and the surgical system. Internal medicine system: Neurology, Respiratory Medicine, Cardiology, Rehabilitation Medicine, General Internal Medicine, Nephrology, Endocrinology, Gastroenterology, Hematology, Medical Oncology, Medical ICU, Emergency Department, Traditional Chinese Medicine, Rheumatology and Immunology, Nutrition Department, etc. Surgical system: Burn Surgery, Spinal Surgery, Neurosurgery, Gastrointestinal Surgery, Trauma Surgery, Joint Surgery, Urology, Hepatobiliary Surgery, Cardiothoracic Surgery, Breast Surgery, Cardiovascular Surgery, Anorectal Surgery, Orthopedics, Otorhinolaryngology, Gynecology, Pain Medicine, Ophthalmology, Stomatology, Radiotherapy, Interventional Medicine, etc.

2.4. Statistical Analysis

SPSS 26.0 software was used for statistical analysis. Enumeration data were described as frequencies and percentages (%). The chi-square test or Fisher’s exact test was adopted for intergroup comparisons. The Cochran-Armitage trend test was applied for trend analysis across age groups. A P value < 0.05 was defined as statistically significant.

3. Results

3.1. Baseline Characteristics

Among the 1,285 elderly consultation patients, 746 (58.1%) were male and 539 (41.9%) were female, with a male-to-female ratio of 1.38:1. Patients were aged 60–102 years with a mean age of (76.2 ± 9.3) years. Age stratification: 355 patients

(27.63%) aged 60–69 years, 460 patients (35.8%) aged 70–79 years, 378 patients (29.42%) aged 80–89 years, and 92 patients (7.16%) aged ≥ 90 years.

3.2. Overall Disease Spectrum

Dermatitis and eczema were the leading category (32.8%), including 202 cases of unspecified dermatitis and 151 cases of eczema, accounting for 83.64% of this group. Sexually transmitted diseases accounted for 12.9% (167 cases), dominated by syphilis (98.80%). Viral dermatoses accounted for 8.7% (112 cases), among which herpes zoster made up 81.25% (91 cases). Other categories included fungal dermatoses (88 cases, 6.8%), pruritic dermatoses (87 cases, 6.7%), drug eruptions (80 cases, 6.2%), undiagnosed conditions (48 cases, 3.7%), skin tumors (41 cases, 3.1%), arthropod-borne dermatoses (35 cases, 2.7%), bacterial dermatoses (34 cases, 2.7%), bullous dermatoses (30 cases, 2.6%), erythematousquamous dermato-

ses (24 cases, 2.3%), urticarial disorders (23 cases, 1.8%), diseases of skin appendages (22 cases, 1.7%), nail diseases (11 cases, 0.8%), pigmentary disorders (8 cases, 0.6%), cutaneous vasculitis (5 cases, 0.3%), keratotic dermatoses (4 cases, 0.3%), mucocutaneous junction disorders (4 cases, 0.3%), nutritional and metabolic dermatoses (3 cases, 0.2%), neuropsychocutaneous disorders (1 case, $<0.1\%$), and neutrophilic dermatoses (1 case, $<0.1\%$).

3.3. Comparison of Disease Spectrum Across Different Age Groups

With advancing age, the proportions of dermatitis/eczema and pruritic dermatoses increased, while the proportion of drug eruptions declined. No obvious age-related differences were observed in the distribution of viral dermatoses, sexually transmitted diseases and fungal dermatoses (Table 1).

Table 1. Distribution of major dermatoses across age groups [n (%)].

Disease	60–69 years (n=355)	70–79 years (n=460)	80–89 years (n=378)	≥ 90 years (n=92)	P for trend
Dermatitis and eczema	92 (25.9)	147 (32.0)	151 (40.0)	32 (35.1)	<0.001
Viral dermatoses	36 (10.1)	40 (8.7)	27 (7.1)	6 (6.5)	0.110
Sexually transmitted diseases	56 (15.7)	61 (13.2)	36 (9.5)	14 (15.3)	0.086
Pruritic dermatoses	23 (6.4)	14 (3.0)	41 (10.8)	9 (9.8)	0.007
Drug eruptions	35 (9.8)	34 (7.4)	27 (7.1)	2 (2.1)	0.023
Fungal dermatoses	19 (5.3)	37 (8.0)	23 (6.1)	9 (9.8)	0.343

3.4. Gender and Disease Spectrum

No statistically significant intergender differences were detected in the constituent ratios of all disease categories ($P > 0.05$), indicating that the spectrum of dermatological consultation diseases did not differ significantly between elderly male and female patients.

3.5. Distribution of Major Consultation-Requesting Departments

The top 10 departments requesting dermatological consultations were Neurology (168 cases, 13%), Respiratory Medicine (113 cases, 8.7%), Cardiology (110 cases, 8.5%), Rehabilitation Medicine (89 cases, 6.9%), General Internal Medicine (88 cases, 6.8%), Medical ICU (76 cases, 5.9%), Emergency Department (68 cases, 5.2%), Endocrinology (60 cases, 4.6%), Nephrology (59 cases, 4.5%), and Gastroenterology (55 cases, 4.2%). All top 10 departments belonged to the internal medicine system. The top three dermatoses for each major department are presented in Table 2.

Table 2. Top three dermatoses for consultations in major departments.

Department	1st (n, %)	2nd (n, %)	3rd (n, %)
Neurology	Dermatitis and eczema (60, 35.7)	Syphilis (15, 8.9)	Herpes zoster (13, 7.7)

Department	1st (n,%)	2nd (n,%)	3rd (n,%)
Respiratory Medicine	Dermatitis and eczema (33, 29.4)	Drug eruptions (13, 11.6)	Fungal dermatoses (11, 9.8)
Rehabilitation Medicine	Dermatitis and eczema (46, 52.2)	Fungal dermatoses (14, 15.9)	Scabies (7, 7.9)
Cardiology	Dermatitis and eczema (25, 22.9)	Syphilis (17, 15.5)	Herpes zoster (16, 14.6)
General Internal Medicine	Dermatitis and eczema (27, 31.0)	Herpes zoster (13, 14.9)	Fungal dermatoses (7, 8.0)
Medical ICU	Dermatitis and eczema (38, 50.6)	Syphilis (11, 14.6)	Scabies (6, 8.0)

3.6. Comparison Between Internal Medicine and Surgical Consultations (Table 3)

There was an extremely significant intergroup difference in sexually transmitted diseases ($P < 0.001$), with a markedly

higher proportion in surgical departments (21.2%) than in internal medicine departments (10.6%). Statistically significant differences were also observed for dermatitis/eczema and drug eruptions ($P < 0.05$). No significant differences were found for viral, pruritic, and fungal dermatoses between the two systems ($P > 0.05$).

Table 3. Comparison of the top six disease spectra between internal medicine and surgical departments [n (%)].

Disease Category	Internal Medicine (n=1003)	Surgery (n=282)	χ^2	P value
Dermatitis and eczema	347 (34.5)	75 (26.5)	6.388	0.0115
Viral dermatoses	84 (8.3)	28 (9.9)	0.668	0.414
Sexually transmitted diseases	107 (10.6)	60 (21.2)	21.91	<0.001
Pruritic dermatoses	68 (6.7)	19 (6.7)	0.0006	0.980
Fungal dermatoses	72 (7.1)	16 (5.6)	0.782	0.377
Drug eruptions	55 (5.4)	25 (8.8)	4.312	0.0379

4. Discussion

Based on 1,285 dermatological consultation records of elderly inpatients in our hospital in 2024, this study systematically analyzed the disease spectrum, demographic characteristics and interdepartmental differences of consultation requests. The results demonstrated that dermatitis and eczema were the leading indication for dermatological consultation (32.8%), followed by sexually transmitted diseases (12.9%) and viral dermatoses (8.7%). This distribution pattern is basically consistent with findings from multiple domestic general hospitals [2, 18], reflecting the unique complexity of cutaneous disorders in older adults due to impaired skin barrier function, immunosenescence, multiple comorbidities and polypharmacy [2]. Compared with previous similar studies, this research further conducted age-stratified trend analysis and focused on the comparison between internal medicine and surgical departments. We identified a significantly higher pro-

portion of sexually transmitted diseases in surgical consultations, providing new evidence for multidisciplinary skin disease management in hospitals.

Dermatitis and eczema were the primary cause of dermatological consultation in elderly patients, accounting for 32.8% of all consultations, and the proportion increased significantly with age ($P < 0.001$), peaking at 40.0% in the 80–89-year age group, which is consistent with international research. A 2024 retrospective study published in Cureus including 712 elderly inpatients aged ≥ 65 years reported dermatitis as the most common reason for dermatological consultation, accounting for 26% [4]. Aging leads to epidermal thinning, reduced stratum corneum lipids and natural moisturizing factors, impaired skin barrier function, and weakened defense against external irritants and allergens [5]. Meanwhile, elderly hospitalized patients often suffer from urinary and fecal incontinence, prolonged bed rest and malnutrition. Local moisture, friction and inappropriate use of cleansers can induce or aggravate dermatitis and eczema.

Sexually transmitted diseases accounted for 12.9% of all consultations, among which syphilis made up 98.80%,

higher than the expected level in the general elderly inpatient population. The proportion of syphilis in surgical consultations reached 21.2%, significantly higher than 10.6% in internal medicine consultations ($P < 0.001$). In recent years, the syphilis epidemic in China has shown an aging trend [6]. An analysis of national notifiable infectious disease surveillance data for older adults in China from 2014 to 2022 published in a *The Lancet* journal subbrand revealed continuously rising syphilis incidence among adults aged ≥ 60 years, ranking syphilis as the third most prevalent infectious disease in this age group [7]. The proportion of latent syphilis cases has increased markedly among older adults [8]. The high detection rate in surgical patients in our study is closely associated with routine preoperative infectious disease screening. Previous studies have confirmed elevated reported incidence of primary and latent syphilis among patients over 60 years old [9]. Therefore, surgeons should improve awareness of geriatric syphilis. The Expert Consensus on the Diagnosis and Treatment of Geriatric Syphilis (2022 Edition) released by the China Leprosy Control Association also emphasizes the value of syphilis screening for elderly hospitalized patients [10].

Viral dermatoses accounted for 8.7% of all consultations, dominated by herpes zoster (81.25%), the most common viral dermatosis in the elderly. A survey by Ai Jinxi et al. involving 27,868 Chinese individuals reported an overall herpes zoster prevalence of 6.15% in the Chinese population, rising to 12.95% among adults ≥ 70 years old [11]. Another large-sample Chinese epidemiological study estimated an annual herpes zoster incidence of 6.64‰ in individuals aged ≥ 50 years [12]. Patients with chronic diseases such as diabetes mellitus, chronic kidney disease and chronic obstructive pulmonary disease carry a significantly higher risk of herpes zoster [13].

Pruritic dermatoses accounted for 6.7% of consultations, reaching 10.8% in the 80–89-year group and 9.8% in patients aged ≥ 90 years, with a significant upward trend with age ($P=0.007$). Senile pruritus is a frequent clinical dermatological problem. According to the Expert Consensus on the Diagnosis and Management of Senile Pruritus developed by the Geriatric Dermatology Group of the Chinese Society of Integrated Traditional and Western Medicine, Dermatology and Venereology Committee, its prevalence increases with age. International epidemiological data report an incidence of 12% among dermatology outpatients aged 65 years and 20% among patients older than 85 years [14]. Its pathogenesis involves multiple factors including impaired skin barrier function, immunosenescence, cytokine dysregulation and peripheral neuropathy [14]. Persistent pruritus in hospitalized older adults impairs sleep and mood; repeated scratching may cause skin breakdown and secondary infection, prolonging hospital stay.

Our study found that the proportion of drug eruptions decreased with advancing age ($P=0.023$), with only 2.1% detected in patients ≥ 90 years old. This finding differs from the

common perception that older adults receiving multiple medications have higher risks of adverse cutaneous drug reactions. Physiological aging alters pharmacokinetics and pharmacodynamics; reduced renal clearance, impaired hepatic metabolism and changes in body composition predispose older adults to drug accumulation and toxic effects [15]. A previous study noted that 64% of hospitalized patients older than 70 years with cutaneous adverse drug reactions received multiple medications; antibiotics (85%), cardiovascular agents (16%), and antineoplastic drugs (9%) were the most common sensitizing agents [16]. Hu Ye et al. analyzed adverse reactions involving the skin and appendages in 400 hospitalized patients and identified allergy history, hepatic and renal disease history, polypharmacy, and age ≥ 60 years as independent risk factors for severe cutaneous adverse drug reactions ($P<0.05$) [17]. Several explanations may account for the lower proportion of drug eruptions in the oldest-old group: clinicians tend to simplify medication regimens for patients with multiple comorbidities and limited life expectancy; severe drug eruptions carry high mortality in advanced age, and such cases may not be included in consultation records; immunological responsiveness declines in the oldest-old, leading to atypical manifestations of drug hypersensitivity that may be categorized as “dermatitis and eczema”. Since this is a retrospective analysis, these hypotheses cannot be verified, and further prospective investigations are warranted.

Fungal dermatoses accounted for 6.8% of consultations with no significant age-related differences ($P=0.343$), yet relatively high proportions were observed in Rehabilitation Medicine and General Internal Medicine. International research similarly identifies fungal infections as frequent cutaneous complications in hospitalized older adults; in the aforementioned cohort of 712 elderly patients, fungal infections accounted for 23% of consultations, mainly tinea cruris, onychomycosis and tinea pedis [4]. Risk factors include prolonged bed rest, poor foot hygiene, hyperhidrosis and shared bathing facilities. In addition, broad-spectrum antibiotic use disrupts commensal skin flora and increases susceptibility to fungal infection.

Dermatological consultation in general hospitals is critical for managing cutaneous diseases in hospitalized patients. A retrospective analysis of 3,730 dermatology consultations by Wen Ziping et al. demonstrated that internal medicine departments generated the largest proportion of consultation requests [2]. A 1,000-case consultation analysis conducted by the Department of Dermatology, Peking Union Medical College Hospital yielded consistent results, with internal medicine accounting for 41.3% of consultation requests [19]. Du et al. analyzed 178 dermatology consultations for inpatients in the Geriatrics Department of the Second Hospital of Shandong University and found that dermatitis/eczema and infectious diseases were the leading consultation indications, with 76.4% of consultations requested for newly developed skin lesions during hospitalization [3]. Chen et al.’s 5-year retrospective analysis of dermatological consultations for elderly inpatients

at a tertiary hospital also confirmed dermatitis/eczema and infectious dermatoses (especially herpes zoster and fungal infections) as the most common consultation triggers [20]. Consistent findings across studies confirm that cutaneous disorders among elderly inpatients constitute an important component of multidisciplinary collaboration in general hospitals. Cases categorized as undiagnosed accounted for 3.7% in our cohort, suggesting that some cutaneous manifestations in older adults have complex etiologies requiring advanced examinations such as skin biopsy and allergen testing to improve diagnostic accuracy.

5. Limitations of the Study

This study has several limitations. First, it is a single-center retrospective investigation, limiting the generalizability of findings; patient composition and consultation workflows vary across regions and hospital tiers. Second, consultation diagnoses rely on descriptions from requesting departments and clinical judgment by dermatologists; mild or atypical cases may not trigger formal consultation, introducing selection bias. Third, diagnoses were abstracted from consultation records without long-term patient follow-up, prohibiting assessment of treatment outcomes and prognosis. Fourth, baseline comorbidities, complete medication lists and laboratory data were not collected, precluding multivariate regression analysis to adjust for confounding factors. Future multicenter prospective cohort studies incorporating comprehensive clinical and laboratory data are needed to explore risk factors, optimal management strategies, and health economic evaluation for cutaneous disorders in elderly inpatients.

6. Conclusion

In summary, the disease spectrum of dermatological consultations for elderly inpatients is dominated by dermatitis and eczema, syphilis, and herpes zoster, with marked variations across age subgroups and clinical departments. The burden of dermatitis/eczema and pruritic dermatoses increases with age, whereas syphilis and drug eruptions are more prevalent in surgical departments. Clinical practice should prioritize early recognition of skin disorders in older adults and strengthen multidisciplinary collaboration, with particular attention to prevention and management of infectious dermatoses (syphilis, scabies, herpes zoster) and drug-related eruptions. Fundamental skin care including moisturization, gentle cleansing, and irritant avoidance should be integrated into comprehensive geriatric inpatient management to improve quality of life and hospital outcomes. Additionally, during medical training, interns and residents rotating in dermatology should focus on these high-prevalence conditions to enable timely recognition and management in in-dependent clinical practice.

Abbreviations

SPSS	Statistical Package for the Social Sciences
ICU	Intensive Care Unit

Author Contributions

Zou Xiaofang: Conceptualization, Methodology, Writing – original draft

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Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Zhang X B, Wang J Q. 老年皮肤病的临床特点及防治策略 [Clinical Characteristics, Prevention and Treatment Strategies of Geriatric Dermatoses]. Chinese Journal of Dermatology, 2018, 51(7): 481-484.
- [2] Wen Z P, Zhong Q B, Lu D Q. 综合医院住院患者皮肤科会诊病例回顾性分析 [Retrospective Analysis of Dermatological Consultation Cases Among Inpatients in a General Hospital]. Journal of Clinical Dermatology, 2016, 45(3):189-192. <https://doi.org/10.16761/j.cnki.1000-4963.2016.08.009>
- [3] Du L, Cao Z, Han C, et al. Dermatology Consultation in the Geriatrics Department of a Tertiary Hospital in China: A Retrospective Study of 178 Patients. Clinical, Cosmetic and Investigational Dermatology, 2024, 17: 925-930. <https://doi.org/10.2147/CCID.S461156>
- [4] Menteşoğlu D, Kartal S. Assessment and Management of Dermatological Issues in Hospitalized Geriatric Patients: A Retrospective Study in a Tertiary Care Hospital. Cureus, 2024, 16(12): e 75665. <https://doi.org/10.7759/cureus.75665>
- [5] Kong P H. 基因表达动力学研究揭示年龄对屏障功能恢复的影响:年长志愿者的表皮修复过程会延迟发生 [Gene Expression Kinetics Reveal the Effect of Aging on Barrier Recovery: Delayed Epidermal Repair in Elderly Volunteers]. Chinese Journal of Dermatology, 2019, 52(3): 220-221. <https://doi.org/10.3760/cma.j.issn.0412-4030.2019.03.101>
- [6] Xiong H, Yuan X X, Li Z B, et al. 基于联结点回归模型和年龄-时期-队列模型对 1990-2019 年中国梅毒发病趋势分析 [Analysis of Syphilis Incidence Trends in China From 1990 to

- 2019 Based on Joinpoint Regression and Age-Period-Cohort Models]. *Chinese Journal of Preventive Medicine*, 2024, 25(6): 657-664. <https://doi.org/10.16506/j.1009-6639.2024.06.003>
- [7] Liu H, Chen Y, Wang L, et al. Epidemiological analysis of infectious diseases in the elderly in China, 2014-2022. *The Lancet Regional Health – Western Pacific*, 2025, 45: 101123. <https://doi.org/10.1016/j.lanwpc.2025.101729>
- [8] Wang C, Zhang X, Li J, et al. Changes in the epidemiology of syphilis: new strategies for China to address new challenges. *Journal of Global Health*, 2025, 15: 04012. <https://doi.org/10.2158/jogh-15-04012>
- [9] Tao Y, Chen M Y, Tucker J D, et al. A Nationwide Spatiotemporal Analysis of Syphilis Over 21 Years and Implications for Prevention and Control in China. *Clinical Infectious Diseases*, 2020, 70(1): 136-139. <https://doi.org/10.1093/cid/ciz331>
- [10] China Leprosy Control Association. 老年梅毒诊断与治疗专家共识(2022版) [Expert Consensus on Diagnosis and Treatment of Geriatric Syphilis (2022 Edition)]. *Chinese Journal of Aids and STDs*, 2022, 28(12): 1357-1362.
- [11] Ai J X, Xia Y Q, Zhu W H, et al. 中国人群带状疱疹患病率及影响因素 [Prevalence and Influencing Factors of Herpes Zoster in Chinese Population]. *Chinese Journal of Epidemiology*, 2025, 46(7): 1204-1208. <https://doi.org/10.3760/cma.j.cn112338-20250203-00067>
- [12] Sun X, Wei Z, Lin H, et al. Incidence and disease burden of herpes zoster in the population aged ≥ 50 years in China: Data from an integrated health care network. *Journal of Infection*, 2021, 82(2): 253-260. <https://doi.org/10.1016/j.jinf.2021.02.011>
- [13] Li Y, An Z, Yin D, et al. Disease Burden of Herpes Zoster in China: A Systematic Review and Meta-analysis. *Expert Review of Anti-infective Therapy*, 2021, 19(2): 165-179. <https://doi.org/10.1080/14787210.2020.1792290>
- [14] Geriatric Dermatology Group, Dermatology and Venereology Committee, Chinese Society of Integrated Traditional and Western Medicine. 老年皮肤瘙痒症诊断与治疗专家共识 [Expert Consensus on Diagnosis and Management of Senile Pruritus]. *Chinese Journal of Dermatology*, 2024, 57(2): 101-106. <https://doi.org/10.35541/cjd.20240407>
- [15] Rojas-Pérez E, Hernández-Blanco D, García-Morales I, et al. Severe Drug-Induced Dermatoses in a Geriatric Patient: A Case Report. *Cureus*, 2025, 17(7): e 87781. <https://doi.org/10.7759/cureus.87781>
- [16] Dupuy A, Barbaud A, Soria A, et al. Skin-adverse drug reactions in the elderly: An underestimated and avoidable issue. *Annals of Dermatology and Venereology*, 2025, 152(4): 103445. <https://doi.org/10.1016/j.annder.2025.103445>
- [17] Hu Y, Yin C L, Wu H, et al. 某院 400 例住院患者皮肤及其附件药品不良反应报告分析 [Analysis of 400 Adverse Drug Reaction Reports Involving Skin and Its Appendages Among Hospitalized Patients in a Hospital]. *China Pharmaceutical*, 2024, 33(10): 34-37. <https://doi.org/10.3969/j.issn.1006-4931.2024.10.008>
- [18] Chen L, Wang X, Li Y, et al. Dermatology consultations in hospitalized elderly patients: a 5-year retrospective study from a tertiary hospital in China. *BMC Geriatrics*, 2023, 23(1): 456. <https://doi.org/10.1186/s12877-023-04140-8>
- [19] Department of Dermatology, Peking Union Medical College Hospital. 综合医院皮肤科院内会诊 1000 例分析 [Analysis of 1000 In-hospital Dermatological Consultations in a General Hospital]. *Chinese Journal of Dermatology*, 2015, 48(9): 617-620.
- [20] Yang J, Liu Z, Zhang H, et al. Risk factors for herpes zoster in patients with chronic diseases: a multicenter case-control study in China. *Journal of the European Academy of Dermatology and Venereology*, 2022, 36(8): 1345-1352. <https://doi.org/10.1111/jdv.18237>