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CUTANEOUS MANIFESTATIONS OF SYSTEMIC DISEASES: A RETROSPECTIVE STUDY ANALYZED STUDY

Maheen Ateeq Sheikh[1], Farrakh Ghayas[2], Sadia Anwar[3*], Faryal Afridi[4]

[1]Resident Medicine FCPS
[2]MD Resident
[3*]Senior Medical Officer
[4]Resident Medicine FCPS

***Corresponding Author:** Sadia Anwar
*Senior Medical Officer. Email: sadiaanwar823@ gmail.com

Abstract

Objectives: This study investigated the prevalence and characteristics of cutaneous manifestations in systemic diseases, identified common skin involvement patterns, and highlighted the importance of dermatological evaluation in the diagnosis and management of underlying systemic conditions.

Study Design: A retrospective study.

Methods: This retrospective study analyzed 100 patient records from the Department of Dermatology, PIMS Hospital, Islamabad, between January 2021 and January 2022. Data on patient demographics, including gender distribution (35% male, 65% female) and age (20-45 years), were collected. Cutaneous manifestations were categorized based on clinical presentation and associated systemic diseases. Diagnostic approaches were documented, including clinical evaluation, laboratory investigations, and biopsy. The study aimed to identify common cutaneous manifestations and their association with underlying systemic diseases, highlighting the importance of dermatological evaluation in diagnosing systemic conditions.

Results: Out of 100 patients gender wise n-35 (355) male and n-65(65%) female age distribution of patients age group 20-25 n-15(15%),26-30 n-35(35%),31-35 n-15(15%),36-40 n-15(15%),41-45 n-20(20%)table no 3 show Table 3 Common Cutaneous Manifestations Manifestation Number of Patients Rashes and Eruptions n-25(25%), Pigmentary Changesn-15(15%), Nail Abnormalitiesn-20 (20%) Ulcerations and Lesions n-20(20%), Other (Specify)n-20(20%) Table 4 shows Underlying Systemic Diseases Associated with Cutaneous Manifestations Systemic Disease Number of Patients Lupus Erythematosusn-45(45%) Vasculitisn-15(15%), Diabetes Mellitusn-25(25%), Thyroid Dysfunctionn-5(5%), Psoriasis n-5(5%), Connective Tissue Disordersn-5(5%) Other (Specify)n-5 (5%) table number 5 shows Diagnostic Approach for Patients with Cutaneous ManifestationsClinical Evaluation n-35(35%), Laboratory Investigationsn-15(15%), Imaging Studiesn-20(20%), Biopsyn-25(25%), Other (Specify)n-15(15%)

Conclusion: A retrospective analysis of 100 patient records from the Department of Dermatology, PIMS Hospital, Islamabad, was conducted between January 2021 and January 2022. Data on patient

demographics, including gender distribution (35% male, 65% female) and age (20-45 years), were collected. Cutaneous manifestations were categorized based on clinical presentation and associated systemic diseases. Diagnostic approaches were documented, including clinical evaluation, laboratory investigations, and biopsy.

Keywords: Systemic, Cutaneous, Dermatological Evaluation

Introduction

Skin symptoms may often be a critical signal to underlying systemic disorders, acting as a diagnostic tool for medical professionals. This article discusses the outcomes of retrospective research undertaken at the Department of Dermatology, PIMS Hospital, Islamabad, to better understand the incidence and features of cutaneous symptoms in systemic illnesses[1]. The research, which lasted from January 2021 to January 2022, looked at 100 patient records, with a gender distribution of 65% female and an age range of 20 to 45 years. The skin is sometimes called a "mirror of internal diseases" since it may reveal symptoms of underlying health problems. Skin abnormalities may be caused by various systemic illnesses, such as infections, endocrine difficulties, or autoimmune disorders[2]. Early detection of these symptoms is critical for prompt treatment of systemic disorders, which leads to improved patient outcomes. The investigation discovered frequent cutaneous signs linked to systemic disorders, including ulcerations, pigmentary alterations, rashes, eruptions, and nail abnormalities. These symptoms may signal underlying conditions such as psoriasis, vasculitis, diabetes, lupus erythematosus, thyroid dysfunction, and connective tissue disorders [3]. Dermatologists play an important role in the early diagnosis and treatment of systemic diseases. Dermatologists can assist in discovering underlying disorders by thoroughly examining skin abnormalities and understanding their systemic repercussions. Imaging scans, biopsies, laboratory testing, and clinical assessment are critical tools for diagnosing and treating cutaneous issues in patients. Early detection of cutaneous indications and diagnosis of systemic disorders are essential for prompt treatment and minimal consequences [5]. Dermatologists must work with other medical specialists to ensure patients get full treatment for their systemic illnesses. Recognizing these signs and collaborating with other healthcare practitioners may enhance patient outcomes and quality of life[6].

Methods:

This retrospective study evaluated 100 PIMS Hospital in Islamabad dermatology patient data from January 2021 to January 2022. Patient demographics were age (20–45) and gender (35% male, 65% female). Systemic diseases and clinical presentation defined skin complaints. The diagnostic methods included biopsy, laboratory testing, and clinical assessment. The study identified common cutaneous symptoms and their link with systemic diseases to underline the importance of dermatological examination in diagnosing systemic disorders.

Results:

The 100 patients were 35 per cent men and 65 per cent women, aged 20–45. Rashes and eruptions (25%) were the most prevalent cutaneous symptoms, followed by pigmentary changes (15%), nail abnormalities (20%), and ulcerations (20%). These symptoms were associated with lupus erythematosus (45%), vasculitis (15%), diabetes (25%), thyroid dysfunction (5%), psoriasis (5%), and connective tissue diseases (5%). Clinical examination made for 35% of diagnostic methods, followed by laboratory (15%), imaging (20%), biopsy (25%), and other (15%). These findings highlight the range of cutaneous symptoms linked with systemic diseases and the importance of careful diagnosis.

Table 1: Demographic characteristics of the patients

Gender Distribution	**Percentage %**
Mean age	**05=31.5 years**
Male:	35%
Female:	65%

20-25	15%
26-30	35%
31-35	15%
36-40	15%
41-45	20%

Table 2: Typical Manifestations of Cutaneous Conditions

Manifestation	Number of Patients	Percentage %
Rashes and Eruptions	25	25%
Pigmentary Changes	15	15%
Nail Abnormalities	20	20%
Ulcerations and Lesions	20	20%
Other (Specify)	20	20%

Table 3: Cutaneous manifestations are often accompanied by underlying systemic diseases.

Systemic Disease	Percentage %	Number of Patients
Lupus Erythematosus	45	45%
Vasculitis	15	15%
Diabetes Mellitus	25	25%
Thyroid Dysfunction	5	5%
Psoriasis	5	5%
Connective Tissue Disorders	5	5%
Other (Specify)	5	5%

Table 4: The diagnostic methodology employed for individuals presenting with cutaneous manifestations.

Diagnostic Approach	Number of patients	Percentage
Clinical Evaluation	35	35%
Laboratory Investigations	15	15%
Imaging Studies	20	20%
Biopsy	25	25%
Other (Specify)	15	15%

Discussion:

To determine how often cutaneous symptoms are in systemic disorders and their characteristics, we reviewed 100 patient records from the Dermatology Department at PIMS Hospital in Islamabad between January 2021 and January 2022 [7]. The study's goals were to compare results to previous research, identify similar patterns of skin involvement, and highlight the importance of dermatological evaluation in detecting and treating systemic disorders [8]. The 100 patients' ages ranged from 20 to 45, with 35% male and 65% female. Common skin symptoms included rashes and eruptions (25% of cases), changes in pigmentation (15%), abnormalities in the nails (20%), and ulcerations (20%). Thyroid dysfunction(5%), psoriasis(5%), diabetes(25%), lupus erythematosus(45%), vasculitis(15%), and connective tissue disorders (5%). Diagnostic testing included physical examination(35%), laboratory investigations(15%), imaging tests(20%), a biopsy (25%), and other medically approved treatments (15%). Compared to other research, your results lend credence to the theory that skin is a window into underlying mental and structural health issues. A dermatologist's ability to spot subtle skin tone or texture changes can indicate more serious health issues, making them a valuable asset in diagnosing systemic disorders [10]. By detailing the prevalence and characteristics of cutaneous symptoms in Islamabad-based systemic diseases, our work adds to this body of knowledge. According to Smith (2010), dermatologists should focus on cutaneous symptoms since the skin reflects systemic illness. The importance of recognizing and treating systemic illness skin symptoms early has been highlighted by Sampaio et al. (2022)[11,12]. According to other studies, some systemic diseases have

been associated with common skin signs. The symptoms of cutaneous lupus erythematosus and the need for a full diagnosis were investigated by Cooper et al. (2021). The variety of skin manifestations in systemic diseases was pointed out by Miulescu et al. in their 2020 assessment of pancreatic disorders [13]. Your research sheds light on the prevalence and characteristics of skin complaints in systemic diseases, highlighting the need for dermatological evaluation during diagnosis and treatment [14]. By contrasting your results with previous studies, you provided a comprehensive overview of the issue, drawing attention to the significance of skin symptoms in the early diagnosis and treatment of systemic illnesses [15].

Conclusion: Dermatological assessment is crucial for detecting systemic disorders based on cutaneous symptoms, according to the study. Early detection and identification of these symptoms are essential for prompt treatment and better patient outcomes. This study illuminates dermatological and systemic illnesses.

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