

FREQUENCY AND AETIOLOGY OF PRURITIS IN ADMITTED PATIENTS IN A MEDICAL WARD OF MAYO HOSPITAL, LAHORE

Fatima Mahboob

Department of Medicine, King Edward Medical College, Lahore

Background: Pruritus or itching is a common complaint. It can be due to many dermatological and medical illnesses. This study was conducted to find out presence of pruritus in different diseases in patients admitted in a medical ward and to determine whether pruritus is more common due to medical causes or dermatological causes. **Methods:** All patients admitted in North Medical Ward, Mayo Hospital, Lahore during March 2002 to November 2002 were included in the study. Complete medical history especially history of pruritus was taken. Physical examination was performed to diagnose the primary illness and to find cause of pruritus when present. **Results:** 740 patients were included in the study. Sixty (8.1%) patients complained of pruritus. 5.4% had pruritus due to skin conditions. 2.7% had pruritus due to medical illnesses. **Conclusion:** The patients admitted in medical ward are having pruritus mainly due to medical diseases but skin conditions should not be ignored.

KEY WORDS: Pruritus, itching, scabies

INTRODUCTION

Pruritus or itching is an irresistible desire to scratch. It is a distressing symptom causing a lot of discomfort. It can be due to many dermatological conditions but it is also associated with many systemic medical disease.¹⁻⁴ some times it precedes the actual illness. It is a common health problem which should not be taken lightly. Persistent itching causes breaks in the skin predisposing it to infection. The patient is more concerned about pruritus ignoring other symptoms which may cause wrong or missed diagnosis.

Itch receptors are unmyelinated, unspecialized free nerve endings found near to the dermoepidermal junction. Itch transmitting poly modal, unmyelinated C fibers enter the posterior horn of gray matter of spinal cord.⁵ These synapse there with secondary neurons which cross over to the other side and ascend to the thalamus. The tertiary neurons relay the sensation of itch to the cortex. The peripheral mediators are histamine, neuropeptides, Platelet activating factor, vasoactive peptides and proteases.⁶

Pruritus can be due to many causes like allergy, seborrhic dermatitis, neurodermatitis, psoriasis⁷, pemphigus, hay fever, mite infestation eczema, low or high humidity, polycythemia vera, pediculosis, insect bite, uremia^{8,9}, chronic liver disease, primary biliary cirrhosis¹⁰, detergents, urticaria, malignancy, obstructive jaundice¹¹, iron deficiency anemia, drugs, diabeters mellitus¹², hypothyroidism, hyperthyroidism, sicca syndrome and many more.

This study was conducted with an objective to determine the frequency of medical and dermatological causes of pruritus in patients of medical wards.

MATERIAL AND METHODS

North Medical Ward, Mayo Hospital, Lahore consists of both male and female sections. The bed strength is 25 beds in the male ward and 15 in female ward. Extra beds can be added when required. The patients admitted from March 2002 to November 2002 were included in the study to see the effect of seasonal variations on itching.

Apart from medical history, history of pruritis was taken in all patients keeping in mind the following factors.

- Pruritus is localized or generalized
- Present on exposed area or generalized
- History of pruritis in other family members
- Occupation
- Chemical or animal exposure
- Provoking or relieving factors
- Time relationship
- Seasonal variation
- Emotional stress

Complete physical examination was done keeping in mind possible diagnosis and differential diagnosis. The laboratory investigations were advised accordingly.

Complete blood picture, serum electrolytes, blood urea, blood sugar, serum creatinine, liver function test, x-ray chest and gastroscopy were performed when needed.

RESULTS

740 patients were admitted during March 2002 to November 2002, Male patients were 520 (70.3%) female patients were 220 (29.7%). The final diagnosis in 740 patients is given in table-1. Sixty patients were having pruritis. Thirty five patients were having generalized pruritis. Twenty five patients complained of localized pruritis. Sixteen patients had itching only on exposed parts.

DISCUSSION

The treatment of pruritis depends on its etiology^{4,9}. The etiology of itch may or may not be related to the primary illness.

The patients admitted in a medical ward with pruritis may be evaluated properly⁶. In difficult cases the opinion of a dermatologist may be taken to avoid wrong diagnosis. The wrong treatment may aggravate the patient symptoms¹² or unnecessary medication may worsen the primary illness.

Table-1: Final Diagnosis

Diagnosis	n=	%age
Left ventricular failure	48	6.48
Chronic obstructive lung disease	38	5.13
Acid peptic disease	12	1.62
Ischemic heart disease	50	6.75
Chronic liver disease	80	10.81
Meningitis	15	2.02
Malaria	10	1.35
Chronic renal failure	55	7.43
Drug addiction	05	0.67
Cerebrovascular accident	60	8.10
Hypertensive heart disease	08	1.09
Malignancy of gastrointestinal tract	04	0.54
Diabetes mellitus	80	10.81
Poisoning	20	2.70
Acute renal failure	12	1.62
Pulmonary tuberculosis	50	6.75
Snake bite	04	0.54
Space occupying lesion of brain	02	0.27
Congestive cardiac failure	18	2.43`
Tetanus	20	2.70
Bronchial asthma	20	2.70
Hemotological malignancies	10	1.35
Typhoid fever	05	0.67
Bacterial endocarditis	02	0.27
Drug induced hepatitis	04	0.54
Cellulitis	02	0.27
Obstructive uropathy	02	0.27
Arthritis	11	1.48
Dilated cardiomyopathy	15	2.02
Diabetic ketacidosis	12	1.62
Subarachnoid hemorrhage	05	0.67
Bleeding disorders	08	1.08
Septicemia	14	1.89
Liver abscess	04	0.54
Acute viral hepatitis	06	0.81
Obstructive jaundice	02	0.27
Epilepsy	20	2.70
Miscellaneous	20	2.70

Table-2: Etiology of pruritis

Disease	n=	Percentage
Seborrheic dermatitis	02	3.3
Allergic dermatitis	02	3.3
Pediculosis	02	3.3
Insect bite	08	13.3
Uremia	03	5.0

Malignancy gut	01	1.6
Liver disorders	11	18.3
Diabetes mellitus	04	6.6
Scabies	22	36.6
Hematological disorders	01	1.6
Prickly heat	04	6.6

In the present study we concluded that pruritis is quite common. It is usually due to skin conditions like dermatitis, prickly heat, insect bite etc. Scabies is an important condition to be remembered in this regard. Some times the patients give history of pruritis in the past and some times they develop itching during their stay in the ward which may be acquired during their stay in the ward. The patients may be responsible for spreading the infection.

Table-3: Facts in the history (n=60)

History	Present	Absent
Pruritus in other family members	12 (20%)	48 (80%)
Relevant occupational history	04 (6.6%)	56(93.4%)
Chemical exposure	02 (3.6%)	58(96.4%)
Provoking factors	04 (6.6%)	56(93.4%)
Relieving factors	10 (6.6%)	50(8.3%)
Time relationship	21(35%)	39(6.5%)
Seasonal variation	15(25%)	45(7.5%)
Emotional stress	05(8.3%)	55(91.7%)

Multiple factors may be present in the same patient.

Different studies reveal that pruritis in medical patients is due to diabetes mellitus, uremia and liver disorders^{1,3,4,12,14}. The present study points out that even in medical cases skin conditions are common and scabies is very common among skin disorders. Therefore proper diagnosis should be made and appropriate treatment should be given which is a must and rewarding.

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Address for Correspondence

Dr. Fatima Mahboob, Assistant Professor, Department of Medicine, King Edward Medical College,
Lahore.Pakistan