International Journal of Research in Medical Sciences
Singh K et al. Int J Res Med Sci. 2017 Aug;5(8):3474-3478
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012
DOI: http://dx.doi.org/10.18203/2320-6012.ijrms20173544

Original Research Article

Clinical profile of patients with cutaneous disorders

Khileshwar Singh[1]*, Kamlesh Dhruv[2], Amit Thakur[3]

[1]Associate Professor, Department of General Medicine, Late Baliram Kashyap Memorial Government Medical College, Jagdalpur, Chhattisgarh, India
[2]Associate Professor, Department of General Surgery, Late Baliram Kashyap Memorial Government Medical College, Jagdalpur, Chhattisgarh, India
[3]Assistant Professor, Department of General Medicine, Chhattisgarh Institute of Medical Sciences, Bilaspur, Chhattisgarh, India

Received: 25 March 2017
Accepted: 25 April 2017

***Correspondence:**
Dr. Khileshwar Singh,
E-mail: drkhileshwarsingh@gmail.com

ABSTRACT

Background: 50-75% of all the patients who are on dialysis suffer from significant xerosis. But the exact cause is difficult to trace. Acquired ichthyosis is seen in some patients. Atrophy of sebaceous glands is seen in patients with uraemia. Such patients also show overall decrease in sweet volume. Objective was to study the clinical profile of patients with cutaneous disorders.
Methods: A hospital based prospective study was carried out from September 2012 to February 2013 at a tertiary care centre of Late Baliram Kashyap memorial government medical college, Jagdalpur, Chhattisgarh, India. A total of 50 patients with cutaneous disorders were studied with respect to their clinical profile. Patients not willing to participate in the present study as per the protocol were excluded from the study. But patients giving their willingness to participate in the present study as per the protocol of the study were included in the study.
Results: The males constituted 58% of the total cases and the females constituted 42% of the total cases. Maximum patients were seen in the fourth and fifth decade of their life i.e. 24% followed by the age group of 31-40 years i.e. 22%. The most common cutaneous manifestation was pruritus in 24% of cases followed by xerosis in 16% of cases. Next most common cutaneous manifestation was Tinea versicolor inn 14% of cases followed by oral candidiasis in 8% of cases and scabies were seen in 6% of cases. Both among males and females, pruritus was the most common skin lesion seen.
Conclusions: The most common cutaneous lesion found in the present study was pruritus in 24% of cases followed by xerosis (16%), Tinea versicolor (14%), oral candidiasis (8%) and scabies in 6% of cases. Cases of nail changes, herpes zoster, Tinea cruris, hyper pigmentation, folliculitis, Exfoliative dermatitis, and Kyrle's disease, Vitiligo, Melisma and Keloid were also seems.

Keywords: Clinical profile, Dialysis, Pruritus, Scabies Xerosis

INTRODUCTION

Diabetes mellitus can lead to many cutaneous disorders like eruptive xanthomas, lipoidica diabeticorum, and diabetic dermopathy. Some other characteristics dermatologic manifestations like scleroderma, kyrle's disease, acanthosis nigricans and cutaneous changes are found to be related with pruritus.

Internal diseases like neuropathy, retinopathy and nephropathy are related with diabetic dermopathy of all the above mentioned dermopathies.[1]

Of all the patients infected with hepatitis C virus about half of them show renal involvement and renal disease. This mainly includes membranous glomerulonephritis or membranoproliferative. This results due to damage caused by immune complexes circulating in the body in these diseases. Essential mixed cryoglobulinemia is also mainly caused by infection with hepatitis C virus. Palpable Purpura is the most common cutaneous manifestation seen in patient with cryoglobulinemia. The other cutaneous manifestations seen in patients with hepatitis C virus are lichen planus, porphyria cutanea tarda and cutaneous changes associated with chronic pruritus.[2]

50-75% of all the patients who are on dialysis suffer from significant xerosis. But the exact cause is difficult to trace. Acquired ichthyosis is seen in some patients. Atrophy of sebaceous glands is seen in patients with uraemia. Such patients also show overall decrease in sweet volume.[3]

Pruritus is mainly caused by uraemia. Among patients with chronic renal failure, 15-50% of them show significant pruritus. Among patients undergoing dialysis, 50-90% of them show significant pruritus.[4] Initially the dialysis may relieve the pruritus in patients with chronic renal failure. But over the period, these patients show evidence of pruritus and it may increase with the duration of dialysis.[5] Age, race, sex is not associated with pruritus. The commonly affected body parts in pruritus are upper back and forelimbs. Due to pruritus, the patients become sleepless. It also affects the psychological wellbeing of the patients. Prurigo nodularis, excoriations and lichen simplex chronicus are some of the manifestations of the pruritus.[6]

The pathogenesis or mechanism of pruritus due to uraemia is not clearly understood. This may be due to disturbances in the equilibrium in the metabolism. Some of the proposed causes of pruritus are hyperparathyroidism, xerosis, hyperphosphatemia, hypercalcemia, increased dermal mast cell proliferation, elevated histamine levels, middle molecular theory and uremic sensory neuropathy.[7] Present study was conducted with the objective to study the clinical profile of patients with cutaneous disorders.

METHODS

A hospital based prospective study was carried out from September 2012 to February 2013 at a tertiary care centre of Late Baliram Kashyap memorial government medical college, Jagdalpur, Chhattisgarh, India.

A total of 50 patients with cutaneous disorders were studied with respect to their clinical profile. Patients not willing to participate in the present study as per the protocol were excluded from the study. But patients giving their willingness to participate in the present study as per the protocol of the study were included in the study. Seriously ill patients who are bed ridden and unable to cooperate despite of their will were not included in the present study. Patients must have some cutaneous disorder with chronic renal failure was the criteria to include the patients in the present study and only such cases were included in the present study. Institutional ethics committee approval was obtained for the present study before the start of the present study. Also, we obtained the willingness of the patients in the form of informed consent in the present study.

For the present study, a detailed pre-designed, pre-tested, semi structured questionnaire was prepared. Detailed history was taken. The points included in the history were age, sex, social class, occupation, history of any renal disease with its duration, whether the patient was on dialysis and if yes how long.

Careful dermatological examination was carried out. The cutaneous manifestations were noted down. They were pruritus, xerosis, Tinea versicolor, oral candidiasis, scabies, nail changes, herpes zoster, Tinea cruris, hyper pigmentation, Vitiligo, Exfoliative dermatitis, photosensitive rash like lupus erythematous, lichen planus, folliculitis, Kyrle's disease, Melisma, and Keloid. The data was entered in the above-mentioned questionnaire for the present study. Proportions were used to analyze the data.

RESULTS

A hospital based prospective study was carried out from September 2012 to February 2013 at a tertiary care centre of Late Baliram Kashyap memorial government medical college, Jagdalpur, Chhattisgarh, India. A total of 50 patients with cutaneous disorders were studied with respect to their clinical profile. Patients not willing to participate in the present study as per the protocol were excluded from the study. But patients giving their willingness to participate in the present study as per the protocol of the study were included in the study.

Table 1: Distribution of study subjects as per their sex.

Sex	Number	Percentage
Male	29	58
Female	21	42
Total	50	100

Table 1 shows distribution of study subjects as per their sex. The males were more than females. The males constituted 58% of the total cases and the females constituted 42% of the total cases.

Table 2 shows distribution of study subjects as per their age. Maximum patients were seen in the fourth and fifth decade of their life i.e. 24% followed by the age group of 31-40 years i.e. 22%. Younger age group of 10-20 years

constituted only 6% of the study population and again only 10% were from the age group of 21-30 years. People above the age of 60 years also showed a bit higher of 14% of the study population.

Table 2: Distribution of study subjects as per their age.

Age	Number	Percentage
10-20	03	06
21-30	05	10
31-40	11	22
41-50	12	24
61-60	12	24
> 60	07	14
Total	50	100

Table 3 shows distribution of various cutaneous manifestations. The most common cutaneous manifestation was pruritus in 24% of cases followed by xerosis in 16% of cases. Next most common cutaneous manifestation was Tinea versicolor inn 14% of cases followed by oral candidiasis in 8% of cases and scabies were seen in 6% of cases. Herpes zoster, Tinea cruris, nails changes, hyper pigmentation constituted 4% each. Folliculitis, lupus erythematous, Exfoliative dermatitis, Kyrle's disease, Vitiligo, Melisma, lichen planus and Keloid constituted one case each.

Table 3: Distribution of various cutaneous manifestations.

Cutaneous manifestations	Number	Percentage
Pruritus	12	24
Xerosis	08	16
Tinea versicolor	07	14
Oral candidiasis	04	08
Scabies	03	06
Herpes zoster	02	04
Tinea cruris	02	04
Nail changes	02	04
Hyper pigmentation	02	04
Folliculitis	01	02
Lupus erythematous	01	02
Exfoliative dermatitis	01	02
Kyrle's disease	01	02
Vitiligo	01	02
Melisma	01	02
Lichen planus	01	02
Keloid	01	02

Table 4: Sex distribution of individual cutaneous lesions.

Cutaneous lesions	Number of cases	Sex distribution			
		Male	%	Female	%
Pruritus	12	8	16	4	8
Xerosis	8	2	4	6	12
Tinea versicolor	7	5	10	2	4
Oral candidiasis	4	2	4	2	4
Scabies	3	2	4	1	2
Herpes zoster	2	1	2	1	2
Tinea cruris	2	1	2	1	2
Nail changes	2	0	0	2	4
Hyper pigmentation	2	1	2	1	2
Folliculitis	1	1	2	0	0
Lupus erythematous	1	0	0	1	2
Exfoliative dermatitis	1	0	0	1	2
Kyrle's disease	1	1	2	0	0
Vitiligo	1	1	2	0	0
Melisma	1	1	2	0	0
Lichen planus	1	0	0	1	2
Keloid	1	1	2	0	0

Table 4 shows sex distribution of individual cutaneous lesions.

Both among males and females, pruritus was the most common skin lesion seen. Nail changes, Exfoliative dermatitis, photosensitive rash, lichen planus affected mainly females but Vitiligo, folliculitis, Kyrle's disease, Melisma and Keloid was not seen among them which was more common among males.

DISCUSSION

The males were more than females. The males constituted 58% of the total cases and the females constituted 42% of the total cases. Maximum patients were seen in the fourth and fifth decade of their life i.e. 24% followed by the age group of 31-40 years i.e. 22%. Younger age group of 10-20 years constituted only 6% of the study population and again only 10% were from the age group of 21-30 years. People above the age of 60 years also showed a bit higher of 14% of the study population.

The most common cutaneous manifestation was pruritus in 24% of cases followed by xerosis in 16% of cases. Next most common cutaneous manifestation was Tinea versicolor inn 14% of cases followed by oral candidiasis in 8% of cases and scabies were seen in 6% of cases. Herpes zoster, Tinea cruris, nails changes, hyper pigmentation constituted 4% each. Folliculitis, lupus erythematous, Exfoliative dermatitis, Kyrle's disease, Vitiligo, Melisma, lichen planus and Keloid constituted one case each. Both among males and females, pruritus was the most common skin lesion seen. Nail changes, Exfoliative dermatitis, photosensitive rash, lichen planus affected mainly females but Vitiligo, folliculitis, Kyrle's disease, Melisma and Keloid was not seen among them which was more common among males.

Knable AL et al found in their study that pruritus was affecting 60-90% of cases, which is quite high compared to the present study.[8] They studied this in the cases of end stage renal disease or among patients undergoing dialysis. They stated that they could not trace the exact cause of such high occurrence of pruritus in their study.

Murphy M et al observed that xerosis was the most common dermatological lesion in their study.[9] They studied this point among patients with chronic renal failure. They divided the patients into two groups; one having pruritus and the other group not having pruritus. The more incidence of pruritus in all the above three studies including the present study may be due to the hot and humid climate of India which predisposes the persons to pruritus. The increased number of cases of oral candidiasis in the present study may be attributed to the chronic debility and immune-compromised status of those patients.

In the present study, we found two cases of hyper pigmentation. Massry SG et al in their study found that many patients developed a yellowish hue.[7] This occurrence was attributed to retained urochromes and carotence which were subsequently deposited in the epidermis and subcutaneous tissues by the authors. They stated that a brownish hyper pigmentation was due to increased production of melanin. This increased production of melanin is due to an increase in poorly dialyzable beta-melanocyte stimulating hormone.

In the present study, there were two cases of Tinea cruris. This was evenly distributed among males and females i.e. one each among them. But other studies show more number of cases of Tinea cruris. It is common in condition of herpes zoster and occurs equally among the males and females. Safrin et al reported that incidence of herpes zoster is 20 to 100 times more common among immune-compromised patients compared to the immune-sufficient people.[1] Herpes zoster is the most commonly initial occurring condition in patients with human immune-deficiency disease. Hence, they stated that all patients who develop herpes zoster must be evaluated for HIV in the ICTC centres.

In the present study, it was found that there was only one case of lupus erythematous. Knable AL et al in their study stated that cases with hypocomplementemia and chronic cutaneous lupus erythematous can be taken as marker for silent nephritis.[8] Thus they should be evaluated by using renal function tests.

We found in the present study that there was one case of Vitiligo. Dawer RPR found as association between Vitiligo and diabetes mellitus particularly among those with late onset Vitiligo.[11] Vitiligo occurs in 4.8% of diabetic patients. We found two cases of koilonychias. Knable AL et al in their study reported that fingernails were commonly affected than nails. Renal impairment was seen in 30-50% of cases.[8]

CONCLUSION

The most common cutaneous lesion found in the present study was pruritus in 24% of cases followed by xerosis (16%), Tinea versicolor (14%), oral candidiasis (8%) and scabies in 6% of cases. Cases of nail changes, herpes zoster, Tinea cruris, hyper pigmentation, folliculitis, Exfoliative dermatitis, and Kyrle's disease, Vitiligo, Melisma and Keloid were also seen.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Yosipovitch G, Hodak E, Vardi P, Shraga I, Karp M, Sprecher E, et al. The prevalence of cutaneous manifestations in IDDM patients and their association with diabetes risk factors and micro vascular complications. Diabetes Care. 1998;21(4):506-9.
2. Daghestani L, Pomeroy C. Renal manifestations of hepatitis C infection. Am J Med. 1999;106(3):347-54.
3. Muller SA, Winkelmann RK. Necrobiosis lipoidica diabeticoruum: A clinical and pathological investigation of 171 cases. Arch Dermatol. 1966;93:272.

4. Rosen T. Uremic pruritus: a review. Cutis. 1979;23(6):790-2.
5. Denman ST. A review of pruritus. J Am Acad Dermatol. 1986;14(3):375-92.
6. Gilchrest BA, Stern RS, Steinman TI, Brown RS, Arndt KA, Anderson WW, et al. Clinical features of pruritus among patients undergoing maintenance hemodialysis. Arch Dermatol. 1982;118(3):154-6.
7. Massry SG, Kopple JD. Uremic toxins: What are they? How are they identified? Semin Nephrol. 1983;3:263.
8. Knable AL. Cutaneous nephrology. Dermatol Clin. 2000;20:413-21.
9. Murphy M, Carmichael AJ. Renal itch. Clin Exp Dermatol. 2000;25(2):103-6.
10. Safrin S. Foscarnet therapy in five patients with AIDS and acyclovir resistant varicella zoster virus infection. Ann Intern Med. 1991;115:19.
11. Dawber RPR. Clinical association of vitiligo. Postgrad Med J. 1970;46:276.

Cite this article as: Singh K, Dhruv K, Thakur A. Clinical profile of patients with cutaneous disorders. Int J Res Med Sci 2017;5:3474-8.