

ORIGINAL ARTICLE

Dermatological Manifestations of Chronic Liver Disease

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ABSTRACT

Background: Chronic liver disease is associated with various skin manifestation. This study was done to assess the spectrum of dermatological changes in chronic liver disease.

Objective: To evaluate any correlation between the dermatological findings and the type of the liver diseases.

Material and Method: A total 100 patients of chronic liver disease due to any etiology were included after taking informed consent. This study was conducted at department of medicine and department of dermatology Shaheed Mohtarma Benazir Bhutto Medical University Larkana from January 2019 to June 2019.

Results: In our study total number of patients was 100, among them males were 70(70%) and females were 30 (30%), mean age of patients was 43 ± 17, duration of disease ranged from 1 to 11 years. Fifty patients (50%) were suffering from chronic HCV infection, 47 patients were suffering from chronic HBV infection, 03 patients were suffering from HCV and HBV infection. Different manifestations were Terry's nails (83%) xerosis (68%), hyperpigmentation (52%), pruritis (35%), palmer erythema (32%), Non scarring hair loss from axilla and groin (28%), Cutaneous infections (07%), lichen planus (04%), gynaecomastia (04%), spider naevi (03%), acralnecrolytic erythema (01%)

Conclusion: Patients with chronic liver disease can have a wide variety of cutaneous manifestations which can give a clue to the presence of the underlying liver disease and its severity. Therefore, identifying these signs earlier can lead to quick diagnosis and effective management of the underlying condition, hence preventing its complications.

Keywords: Dermatological Manifestations, Chronic liver disease

INTRODUCTION

Chronic liver diseases are one of the important causes of major health problems worldwide especially in South East Asia and present as one of the most important cause of morbidity and mortality in Pakistan¹. Common cause of chronic liver diseases in Pakistan are viral hepatitis. There are wide variety of dermatological feature which can present due to chronic liver diseases and can give important clue for early diagnosis and quick treatment for better outcome². Cutaneous features are pigmentation, spider telangiectasias, striae distensae, Terry's nails, leukonychia, palmar erythema, xerosis and loss of pubic and axillary hair⁴⁻⁶. Some cutaneous disorders which occur very often in hepatological disorders are lichen planus, porphyria cutanea tarda, Vitiligo, urticaria, Vitiligo, malakoplakia, Behcet's disease, erythema nodosum and erythema multiforme^{7,8}. Patients with chronic liver disease may develop thinning of hair and hair loss. Nail changes in CLD are clubbing, Terry's nails, thickening of nails, longitudinal ridging, Muehrke's bands, and brittle nails^{10,11}. Advanced cirrhosis can present with Terry's nails characterized by a ground glass opacity of nail plate which turns powdery white at its proximal end¹². Bluish discoloration of lunulae may be found in patients with Wilson's disease known as Azure lunulae. Splinter hemorrhages and hypertrophic osteopathy can also occur in cirrhosis¹³. Some manifestations which are seen with hepatitis B and C are Gianotti-Crosti syndrome, polyarthritis nodosa¹⁵. CLD can also give rise to forms of secondary dyslipoproteinemias like hypertriglyceridemia which may manifest in the form of xanthelasma and xanthoma¹⁶. Aim

of this study was to find out dermatological manifestations and particular linked to etiology of liver disease.

MATERIAL AND METHODS

This cross-sectional observational study was conducted at department of medicine and department of dermatology Shaheed Mohtarma Benazir Bhutto Medical University Larkana from January 2019 to June 2019. A thorough history was taken, as well as a thorough clinical examination, and the information was recorded in accordance with the proforma. The results of routine and particular investigations were documented.

Whenever necessary, dermatological investigations such as nail clippings and skin scrapings with 10% potassium hydroxide mount, skin biopsy for histology, pus for culture, and skin sensitivity testing were carried out on the patient. The Statistical Package for the Social Sciences (SPSS) version 20.0 was used to analyse the data collected.

RESULTS

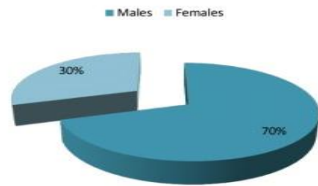
In our study total number of patients was 100, among them males were 70 (70%) and females were 30 (30%), (figure 1) mean age of patients was 43 ± 17 years, duration of disease ranged from 1 to 11 years.

Fifty patients (50%) were suffering from chronic HCV infection, 47 patients were suffering from chronic HBV infection, 03 patients were suffering from HCV and HBV infection (figure 02).

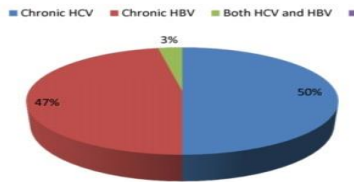
Terry's nails was most common skin finding seen in 83%. Xerosis was second most common and was found in

68%. Other findings were hyperpigmentation (52%), pruritis (35%), palmer erythema (32%), Non scarring hair loss from axilla and groin (28%), cutaneous infections (07%), lichen planus (04%), gynaecomastia (04%), Spider naevi (03%), acralnecrolytic erythema (01%) (figure03).

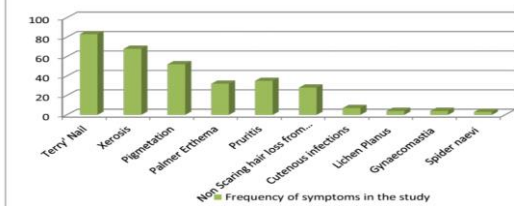
Percentage of the males and females in the study



Percentage of Patients with HBV and BCV Infection



Frequency of symptoms in the study



DISCUSSION

Chronic liver disease is multisystemic disorder and it is one of most common cause of presentation to physicians in routine OPD and in emergency department due to hepatic encephalopathy and hepatorenal syndrome. In our study, males were 70% and females were 30%. 50% were suffering from chronic HCV infection, 47 patients were suffering from chronic HBV infection, 03 patients were suffering from HCV and HBV infection. These results are similar to other studies conducted in our region as viral hepatitis is most common cause of Chronic liver disease. A similar study by Niaz et al (2010) also showed that out of 164 cases, 53.7% were males and 46.3% females.¹⁴ Study done by Gavli et al also showed a male preponderance with 66% males and 34% females.¹⁵ Terry's nails (proximal white nails and distal pinkish margins) was most common skin finding which was seen in 83% and it was found in all nails of hands and feet with predominantly in hands. Another study which conducted in Karachi which showed terry's nails in 21% and this difference can be due to increase number of decompensated cases in our setup¹⁷. Xerosis was second most common finding seen in 68%. Hyperpigmentation was seen in 52%, and was muddy grey with yellowish tinge due to jaundice and was more prominent in sun exposed areas. Nadeem et al¹⁷ reported

jaundice in 64% .pruritis was found in 35%. In another study, Gavli et al noted pruritus in 45% of the patients¹⁸. Palmer erythema was seen in 32%. Khan et al had 36% of the patients with palmar erythema¹⁹. Non scarring hair loss from axilla and groin was seen in 28%. Gavli et al found thinning of hair in 75% cases, loss of axillary hairs in 58% and loss of pubic hairs in 52% cases¹⁸.

CONCLUSION

In this study our observations was dermatologic manifestations could be the first sign of chronic liver disease. Identifying these signs earlier can lead to quick diagnosis and effective management of the underlying condition, hence preventing its complications.

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