

Original article:

To Determine Clinico-Etiological Pattern of Patients with Chronic Leg Ulcer: An Institutional Based Study

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ABSTRACT

Background: Chronic ulceration of the lower legs is a relatively common condition amongst adults, and ulcer symptoms usually include increasing pain, friable granulation tissue, foul odor, and wound breakdown instead of healing. This results in social distress and considerable healthcare and personal costs. The present study was conducted to determine the clinic--etioloical pattern of patients with chronic leg ulcer in a tertiary care centre.

Materials and Methods: The present study was a cross-sectional study conducted among 130 patients of chronic leg ulcers. All patients underwent a detailed history, complete demographic profile, thorough clinical examination, routine blood examinations, pus for culture and sensitivity test where applicable. The criteria adopted to diagnose the different types of ulcers were chiefly clinical. The recorded data was compiled, and data analysis was done.

Results: In the present study 130 patients with chronic leg ulcers were included out of which 90 were male (69.23%) and 40(30.76%) were females. Maximum patients were of age group 18-40 yrs (40.76%). In maximum patients atrophic blanche (18.46%) was present followed by venous eczema (14.61%). In maximum patients' trauma (60%) was the etiology for chronic leg ulcer.

Conclusion: The present study concluded that in maximum patients atrophic blanche was present followed by venous eczema. In maximum patients' trauma was the etiology for chronic leg ulcer.

Keywords: Chronic Leg Ulcer, Atrophic Blanche, Venous Eczema.

INTRODUCTION

Chronic leg ulcer (CLU) also known as chronic lower limb ulcer is a chronic wound of the leg which does not heal within 6 weeks.¹ Such ulcers are associated with significant morbidity and decrease in the quality of life of the patient. In individuals above 60 years, 0.6- 3%, and in those above 80 years, 5% suffer from chronic leg ulcers.² CLU is a common cause of morbidity and their prevalence in the community ranges from 1.9% to 13.1%.³⁻⁵ Leg ulcers have multiple etiologies (such as venous ulcer, ischemic or arterial ulcer, trophic ulcer) and many comorbid associations (obesity, smoking, prolonged standing). Thorough history taking, clinical examination, routine and specific investigations are important for proper diagnosis and management. The commonest cause of leg ulcer in a developed country is a venous ulcer.⁶ In the Western world, leg ulcers are mainly caused by venous insufficiency, arterial insufficiency, neuropathy, diabetes, or a combination of these factors.⁷ Venous ulcers are the most common

type of leg ulcers, accounting for approximately 70% of cases. Arterial disease accounts for another 5% to 10% of leg ulcers; most of the others are due to either neuropathy (usually diabetic) or a combination of those diseases.^{7,8} The present study was conducted to determine the clinic--etiological pattern of patients with chronic leg ulcer in a tertiary care centre.

MATERIALS AND METHODS

The present study was a cross-sectional study conducted among 130 patients of chronic leg ulcers. Written consent was taken from the patients after explaining the study. Patients of all age groups above 18yrs and both sexes presenting with Chronic Leg Ulcer, patients of CLU with more than 6 weeks duration, who were willing to participate in the study were included in the study. All patients underwent a detailed history, complete demographic profile, thorough clinical examination, routine blood examinations, pus for culture and sensitivity test where applicable, Ankle Brachial Index (ABI), and color Doppler study of both the arterial and venous system of lower limbs. The criteria adopted to diagnose the different types of ulcers were chiefly clinical with special reference to the location, morphology, and presence or absence of pain, edema, or pigmentation aided by other cutaneous and systemic examinations and tests mentioned above. The recorded data was compiled, and data analysis was done.

Table 1: Distribution of patients according to age

Age group (yrs)	N(%)
18-40	53(40.76%)
40-60	49(37.69%)
Above 60	28(21.53%)
Total	130(100%)

Table 2: Clinical features of Chronic leg ulcer

Clinical features	N(%)
Pigmentation	15(11.53%)
Varicosity	17(13.07%)
Venous eczema	19(14.61%)
Edema	13(10%)
Lipodermatosclerosis	19(14.61%)
Trophic change	8(6.1%)
atrophic blanche	24(18.46%)
muscle wasting	9(6.92%)
nerve tenderness	6(4.61%)

Table 3: Etiology of chronic leg ulcer

Etiology	N(%)
Trauma	78(60%)
Infective	30(23.07%)
Vascular	10(7.69%)
Malignant	4(3.07%)
Unknown	8(6.15%)

RESULTS

In the present study 130 patients with chronic leg ulcers were included out of which 90 were male (69.23%) and 40(30.76%) were females. Maximum patients were of age group 18-40 yrs (40.76%). In maximum patients atrophic blanche (18.46%) was present followed by venous eczema (14.61%). In maximum patients' trauma (60%) was the etiology for chronic leg ulcer.

DISCUSSION

Leg ulcers are debilitating and painful, greatly reducing patient's quality of life. These ulcers are often difficult to treat, and the successful treatment of leg ulcers depends upon the accurate diagnosis and treatment of the underlying cause. According to most of the Western and European studies, the most common type of leg ulcer is venous ulcer the others being neuropathic ulcer and arterial ulcers. These three kinds of ulcers account for almost 90% of cases of lower leg ulceration.⁹ In tropical countries like India, there is a paucity of epidemiological studies regarding prevalence and etiology of leg ulcers. A study from one center in India suggests leprosy (40%), diabetes (23%), venous disease (11%), and trauma (13%) causes of lower extremity wounds.¹⁰

In the present study 130 patients with chronic leg ulcers were included out of which 90 were male (69.23%) and 40 (30.76%) were females. Maximum patients were of age group 18-40 yrs (40.76%). In maximum patients atrophic blanche (18.46%) was present followed by venous eczema (14.61%). In maximum patients' trauma (60%) was the etiology for chronic leg ulcer. Majority of CLU are the result of venous hypertension, arterial insufficiency, or a combination of both.^{11,12} Uncommon causes include lymphoedema, vasculities, malignancy, and pyoderma gangrenosum.¹¹ A chronic leg ulcer is reported to be more common in female.¹³ Venous ulcer was the most common cause of chronic leg ulcer in the studies in which 75%¹⁴ and 70%¹⁵ of leg ulcers have been reported to be due to venous insufficiency.

Venous insufficiency was responsible for 45 to 60% of leg ulcers, while 10 to 20% were due to arterial insufficiency, 15 to 2% diabetic and 10 to 15% were due to combinations of these factors, in another study.¹⁶

One to 2% may be due to rarer causes such as vasculitis, other immunological causes or malignancy.¹⁷

CONCLUSION

The present study concluded that in maximum patients atrophic blanche was present followed by venous eczema. In maximum patients' trauma was the etiology for chronic leg ulcer.

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