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RESEARCH ARTICLE

CLINICAL AND ETIOLOGICAL STUDY OF LOWER EXTREMITY ULCER CASES

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Abstract

Background: Because of their chronic nature, lower extremity ulcers are the most frequent in our population. By maintaining an upright position, the lower extremities are vulnerable to damage and have their circulation strained. This has implications for researchers and surgeons who have been worried about the causes of their prevalent incidence and the difficulties in curing them. A researcher is looking at the causes of lower extremity ulcers.

Methods: During the study period, 50 patients with various forms of lower extremity ulcers were admitted to the surgical ward. The instances were extensively studied and evaluated in depth. If a clinically dubious case existed, the diagnosis was determined only after histological testing.

Results: Venous 13 (26%) instances were detected in the present, with male (10) and female (3) contributions. The majority of cases (47%) are males between the ages of 41 and 60 years.High saphenous vein ligation with vein stripping (23%) and conservative (15%) therapy was the most prevalent surgical methods utilised to treat Venous ulcers.

Conclusions: Venous ulcers are the most common kind of leg ulcer today, with the highest morbidity. At various levels, the surgical procedures try to prevent venous reflux.Interdisciplinary management of patients with ulcers, educating patients on foot care and the importance of seeking early medical advice.

Introduction:-

Lower extremity ulcers are the most common in our community due to their chronic nature. This issue impacts people in their prime working years from all socioeconomic backgrounds, not just the poor and middle classes. Lower extremity ulcers are frequently viewed as the least dangerous of all illnesses, and their care is typically handled by the unit's most junior member. The prevalence of ulceration is rising as the population ages and risk factors for atherosclerotic occlusion such as smoking, obesity, and diabetes rise. The great majority of leg ulcers are venous in origin, with literature estimates ranging from 45% to 90% of all leg ulcers.[1,2]

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Venous ulcers, also known as stasis ulcers, account for 80% of lower extremity ulcerations[3]. Some less common causes of lower extremity ulcers include arterial insufficiency, prolonged pressure, diabetic neuropathy, and systemic sickness such as rheumatoid arthritis, vasculitis, osteomyelitis, and skin cancer[4]. The most common causes of venous ulcers are reflux, venous outflow restriction, or a combination of the two[5]. Skin ulcers can cause total loss of the epidermis, as well as sections of the dermis and even subcutaneous fat[6]. If these ulcers are to heal rapidly, the underlying cause must be eliminated, which needs an accurate diagnosis based on a complete history, clinical examination, and investigation, as well as appropriate therapy and follow-up.The vast majority of lower extremity ulcers heal with simple ambulatory outpatient therapy when approached correctly. The essential requirements for treating lower extremity ulcers include a thorough understanding of lower extremity anatomy, vascular haemodynamics, and management of inflammatory skin changes.

Around 10% of the population will acquire a chronic wound over their lifetime, with a wound-related death incidence of 2.5%[7]. The most prevalent cause of lower extremity ulceration is underlying venous pathology[8]. An integrated analysis of prior research on quality of life in individuals with venous ulcers was published in 2011, confirming the disease's poor influence on health-related quality of life[9]. Venous ulcers are frequently recurring, and open ulcers can last for weeks to years[10-12]. A accurate diagnosis is required to avoid incorrect therapy, which may induce wound worsening or injury to the patient.

Only case reports of extremely uncommon ulcers of various aetiologies may be found in the literature.The current study is based on a patient with a lower extremities ulcer of unknown cause who was treated in surgical ward. The recommended treatment included minor surgical procedures, chemotherapy posture, elastic compressor bandaging, and surgery. The following study attempts to analyse the outcomes achieved by these approaches.

Methods:-

In the current study, 50 patients with various forms of lower extremity ulcers with different types were admitted to the surgical wards are included. The cases detailed records were kept using standardised proforma. The ulcers were accompanied by signs and symptoms such as pain, swelling, burning sensation, itching, heaviness, restless limb, skin discoloration, and lipodermatosclerosis.The instances were extensively studied and evaluated in depth. Only after histological inspection was the diagnosis made in clinically questionable instances.A thorough systemic and local examination was performed after collecting a detailed history. Following their consent, patients were subjected to relevant lab and radiological investigations.The clinical criteria used to diagnose the various types of ulcers were based on the location, morphology, and presence or absence of pain and were supplemented by the other cutaneous and systemic examinations.The recommended treatment included minor surgical procedures, chemotherapy posture, elastic compressor bandaging, and surgery.

Results:-

Table 1:- Basic characteristics.

Characteristics	Number	Percentage
Age (years)		
< 40	18	36
41 – 60	25	50
>60	7	14
Sex		
Female	15	30
Male	35	70

Majority of cases belongs to the age group 41-60 years (50%) followed by less than 40 years (36%) and more than 60 years (14%). Male (70%) is predominate than female (30%) (Table-1).

Table 2:- Different types of ulcers.

	Number	Percentage
Venous	13	26
Diabetic	10	20
Traumatic	8	16

Arterial	7	14
Leg ulcer AV fistula	7	14
Trophic	5	10

In the present, the majority of ulcer cases found to be venous (26%) followed diabetic (20%), traumatic (16%), arterial (14%), leg ulcer AV fistula (14%) and trophic (10%) (Table-2)

Table 3:- Type of ulcers according age groups.

	Age			
	< 40 (%)	41 – 60 (%)	>60 (%)	Total
Venous	5 (38)	6 (46)	2 (15)	13
Diabetic	3 (30)	5 (50)	2 (20)	10
Traumatic	3 (38)	4 (50)	1 (12)	8
Arterial	3 (43)	3 (43)	1 (14)	7
Leg ulcer AV fistula	2 (29)	4 (57)	1 (14)	7
Trophic	2 (40)	3 (60)	0	5

In the present, the majority of ulcer cases found to be in the age group 41-60 years followed by age group less than 40 years (Table-3)

Table 4:- Type of ulcers according sex.

	Sex		
	Female (%)	Male (%)	Total
Venous	10 (77)	3 (23)	13
Diabetic	7 (70)	3 (30)	10
Traumatic	5 (63)	3 (37)	8
Arterial	4 (57)	3 (43)	7
Leg ulcer AV fistula	5 (71)	2 (29)	7
Trophic	4 (80)	1 (20)	5

Most common type of ulcer was found in the present was Venous 13 (26%) cases, contributed mainly by male (77%) followed by for Diabetic (70%), traumatic (63%), arterial (57%), leg ulcer AV fistula (71%) and trophic (80%) (Table – 4).

Table 5:- Various types of surgical procedure used for the treatment of venous ulcer.

	Number	Percentage
Debridement of ulcer with skin grafting	3	23
High saphenous vein ligation with sripping of veins (Trendelenburg)	3	23
Subfacial ligation of perforator	2	15
Subfacial ligation of (previously treated varicose vein) perforating vein	2	15
Sclerotherapy	1	8
Conservative	2	15

Rest, elevation, and compression bandaging were used to treat all venous ulcer patients before any surgical intervention until the ulcer healed or became healthy. High saphenous vein ligation with vein stripping (23%) and conservative (15%) therapy was the most prevalent surgical methods utilised to treat Venous ulcers. (Table 5).

Discussion:-

In the present study, 50 cases of lower extremity ulcer have been studied with respect to their etiology clinical features and management.

According to the Rahman G A et al. study, the incidence of leg ulcers is higher in two age groups of 30-39 and 50-69 years[13]. Lower extremity ulcers were found to be common in the age groups above 41 - 60 years (50%), and less than 40 years (36%), in the current study.

Leg ulcers are more common in females, according to Shubhangi V. Agale[14], and equal in both sexes, according to Rahman G A et al[13]. In the current study, males (70%) had more ulcers than females (30%).

According to Kahle B. et al[15], vascular aetiology accounts for 65.2% of leg ulcers, with venous leg ulcers dominating the differential diagnosis, accounting for up to 47.6% of cases. Arterial diseases account for 17.6% of all cases, with the majority of the rest caused by neuropathy or a combination of the two. In the current study, venous ulcers accounted for 26% of cases and arterial ulcers accounted for 14%. Diabetes-related ulcers accounted for nearly 35%, traumatic ulcers 15%, malignant ulcers 4%, and other ulcers 5%.

Diabetic ulcers have been classified as metabolic in Western studies. The most important factors causing ulcers in diabetes are arterio-sclerotic lesions in large leg arteries and/or neuropathy resulting in decreased sensation.

Cornwall et al.[16] found that the median age of all patients in his study was 50 years old, with 44% of the patients being under the age of 50. According to the Callam M. J. study[17], the elderly are not the only population at risk. In his study, ulceration began in 22% of the population before the age of 40.

Peripheral vascular diseases increase with age and are seven times more common in 50-year-old patients than in 20-year-old patients[18]. According to this study, arterial ulcers are most common in people under the age of 60.

Venous ulcers were found to be more common in the age group of 41 to 60 years in the current study, which is rather early when compared to western studies. This disparity is due to the fact that our study group patients in the above age group are from the working class, which involves long hours of standing, and the ulcers they suffer from impair their working capacity, prompting them to seek medical attention early. Elastic crepe bandages are the preferred treatment for venous ulcer patients[19].In the current study, all 13 venous ulcer patients wore elastic crepe bandages and received local dressings as well as Bisgaard's line of treatment. Three patients with venous ulcers had skin grafting, eight had surgery in the form of Trendelenburg's operation, ligation, and subfascial ligation, and two were on conservative treatment.

Conservative care with leg elevation and compression therapy is effective and accounts for the majority of therapy, particularly in the elderly and infirm who are not surgical candidates. There is no superior dressing material to the others. Long-term ulcers that do not respond to conservative treatments or are unable to do so due to lifestyle factors will require surgery.

Conclusion:-

Venous ulcers were found to be the most common type of leg ulcer in the current study, with a significant morbidity rate. It is frequently misdiagnosed, resulting in ineffective and costly treatment. At various levels, surgical techniques are recommended to prevent venous reflux. Interdisciplinary management of patients with ulcers should include a systematic assessment of the patient to determine the pathogenesis, a definitive diagnosis, optimal treatment, and educating patients on proper foot care and the importance of seeking medical advice as soon as possible.

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