



## Case Series

# SUCCESSFUL LIMB SALVAGE IN CHRONIC DIABETIC FOOT AND LOWER-LIMB WOUNDS: CLINICAL OUTCOMES FROM A CASE SERIES

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## ABSTRACT

**Background:** Case series play an important role in documenting clinical outcomes and evaluating treatment effectiveness in routine healthcare practice. The use of standardized clinical assessments combined with photographic documentation provides objective evidence of treatment response and patient improvement. The objective is to evaluate the clinical outcomes of nine patients managed at our clinic through a comparative assessment of pre-treatment and post-treatment findings, supported by before-and-after photographic documentation.

**Materials and Methods:** This retrospective case series included nine patients with complete clinical records and photographic documentation. Data collected included patient demographics, presenting complaints, clinical diagnosis, treatment interventions, and follow-up outcomes. Clinical improvement was assessed through symptom resolution, objective examination findings, and comparative photographic analysis.

**Results:** All nine patients demonstrated favorable clinical outcomes following treatment. Comparative evaluation of before-and-after photographs revealed marked improvement in the clinical appearance of the treated conditions. Patients reported improvement in symptoms and overall satisfaction with treatment outcomes. No significant adverse events or complications were observed during the follow-up period. The degree of improvement varied according to disease severity and treatment duration; however, positive therapeutic responses were consistently observed across all cases.

**Conclusion:** The findings from this case series demonstrate successful clinical outcomes and significant improvement following treatment in all nine patients. Photographic documentation provided valuable objective evidence supporting the observed therapeutic benefits. These results highlight the effectiveness of the treatment approach and underscore the importance of systematic clinical documentation in evaluating patient outcomes. Further studies involving larger patient populations and longer follow-up periods are recommended to validate these findings.

**Keywords:** Case series, clinical outcomes, treatment effectiveness, photographic assessment, before-and-after documentation, patient management, retrospective study.

## INTRODUCTION

Clinical documentation of treatment outcomes is essential for evaluating therapeutic effectiveness and improving patient care. Case series represent an important form of observational clinical research that

provides valuable insights into disease presentation, treatment approaches, and patient outcomes in routine clinical practice.<sup>[1-6]</sup> Although case series lack the comparative strength of randomized controlled trials, they offer practical evidence regarding real-

world treatment effectiveness and can serve as a foundation for future clinical investigations.<sup>[6]</sup>

The use of photographic documentation has become increasingly important in clinical practice, particularly for conditions in which visual assessment is a key component of diagnosis and outcome evaluation. Standardized before-and-after photographs provide objective evidence of clinical changes and facilitate accurate monitoring of treatment response over time. Such documentation enhances the reliability of clinical assessments and improves communication between healthcare providers and patients.<sup>[7-9]</sup>

Diabetic foot ulcers and chronic lower extremity wounds are among the most serious complications of diabetes mellitus and are associated with substantial morbidity, increased healthcare costs, prolonged hospitalization, and a higher risk of lower limb amputation.<sup>[1,2,10]</sup> Effective management requires a multidisciplinary approach involving early diagnosis, appropriate wound care, infection control, pressure offloading, and timely surgical intervention when necessary.<sup>[2,4,11]</sup>

Successful patient management requires a comprehensive approach that includes accurate diagnosis, individualized treatment planning, regular follow-up, and systematic evaluation of outcomes. Careful documentation of clinical progress allows practitioners to assess therapeutic success, identify factors influencing treatment response, and optimize future management strategies.<sup>[3,4,12]</sup>

This case series presents nine patients who underwent treatment at Chennai Diabetic Foot Care Centre and were followed through clinical examination and photographic assessment. The objective of this study was to document treatment outcomes, evaluate clinical improvement using before-and-after comparisons, and demonstrate the effectiveness of the treatment approach employed in routine clinical practice. The findings contribute to the growing body of evidence supporting the value of systematic clinical documentation and outcome-based patient care in the management of diabetic foot ulcers and chronic wounds.<sup>[13-15]</sup>

## MATERIALS AND METHODS

**Study Design and Setting:** This retrospective case series was conducted at Chennai Diabetic Foot Care Centre, Chennai, Tamil Nadu, India. The study included nine patients who underwent treatment and follow-up at the center. Clinical records and photographic documentation were reviewed to evaluate treatment outcomes and assess the effectiveness of the interventions provided.

**Study Population:** A total of nine patients with complete clinical records and photographic documentation were included in the study. Patients were selected based on the availability of pre-treatment and post-treatment clinical assessments and follow-up data.

### Inclusion Criteria

1. Diagnosed with a diabetic foot ulcer or diabetic foot-related wound requiring treatment at Chennai Diabetic Foot Care Centre.
2. Age 18 years or older.
3. Availability of complete clinical records, including demographic and treatment details.
4. Availability of standardized before-treatment and after-treatment photographic documentation.
5. Completion of the prescribed treatment protocol and follow-up visits.

### Exclusion Criteria

1. Patients with incomplete clinical records or missing essential demographic and treatment information.
2. Absence of standardized pre-treatment or post-treatment photographic documentation.
3. Patients who were lost to follow-up before completion of treatment or outcome assessment.
4. Non-diabetic foot wounds, traumatic wounds, venous ulcers, arterial ulcers, or other lower-limb ulcers not related to diabetes mellitus.
5. Patients with severe systemic illness or medical conditions that prevented adequate follow-up and outcome evaluation.

**Data Collection:** Data were collected retrospectively from the medical records of patients treated at Chennai Diabetic Foot Care Centre, Chennai, Tamil Nadu, India. Patient information was obtained from case records, wound assessment charts, treatment notes, follow-up records, and photographic documentation maintained during routine clinical practice. Demographic details, medical history, duration of diabetes, ulcer characteristics, clinical findings, treatment interventions, and follow-up outcomes were systematically reviewed. Standardized photographs were obtained before initiation of treatment and during subsequent follow-up visits to document wound progression and healing. Clinical outcomes were assessed based on reduction in wound size, improvement in wound bed characteristics, resolution of infection, development of healthy granulation tissue, and overall wound healing. All patient identifiers were removed prior to analysis to ensure confidentiality and maintain ethical standards.

**Treatment Protocol:** All patients were managed according to the standard treatment protocol followed at Chennai Diabetic Foot Care Centre. Following a comprehensive clinical assessment, individualized treatment plans were developed based on the severity of the ulcer, presence of infection, vascular status, and overall patient condition. Wound management included regular wound cleansing, sharp debridement of necrotic tissue when indicated, appropriate wound dressings, and infection control measures. Offloading techniques were employed to reduce pressure on the affected area and facilitate wound healing. Patients were also provided with education regarding foot care, glycemic control, and lifestyle modifications. Follow-up visits were scheduled regularly to monitor wound progression, assess treatment response, and

modify the treatment plan when necessary. The effectiveness of treatment was evaluated through clinical examination and comparative assessment of pre-treatment and post-treatment photographs documenting wound healing and tissue regeneration.

**Follow-up:** All patients were followed up regularly at Chennai Diabetic Foot Care Centre to monitor wound progression and treatment response. Clinical assessments were performed during each visit, including evaluation of wound size, tissue viability, infection status, and overall healing. Standardized photographic documentation was obtained during follow-up visits to objectively assess wound healing. The duration of follow-up varied according to wound severity and treatment requirements. All patients demonstrated progressive healing with no major treatment-related complications during the follow-up period.

**Outcome Assessment:** Treatment outcomes were assessed through regular clinical evaluations and comparative analysis of pre-treatment and post-treatment findings. The primary outcome measure was wound healing, as determined by reduction in wound size, improvement in wound bed appearance, development of healthy granulation tissue, and complete or partial wound closure. Secondary outcome measures included resolution of infection, reduction in wound exudate, decrease in surrounding inflammation, improvement in tissue viability, and patient-reported symptom relief. Standardized photographic documentation obtained at baseline and follow-up visits was used to objectively evaluate the healing process and treatment effectiveness. Clinical improvement was determined by comparing the wound characteristics before and after treatment, with outcomes recorded descriptively for each case.

**Photographic Documentation:** Standardized photographic documentation was performed for all patients at baseline and during follow-up visits to objectively assess treatment outcomes. Clinical photographs were captured before initiation of treatment and after completion of the treatment protocol using a consistent imaging approach whenever possible. Images were obtained under similar lighting conditions, patient positioning, and camera settings to ensure accurate comparison between time points. The photographs were used to document changes in wound size, tissue quality, granulation tissue formation, reduction of infection, and overall wound healing progress. Comparative evaluation of pre-treatment and post-treatment images served as an important adjunct to clinical assessment and provided visual evidence of treatment effectiveness. All photographs were anonymized prior to analysis and publication to maintain patient confidentiality and comply with ethical standards.

**Ethical Considerations:** Patient confidentiality and privacy were maintained throughout the study. All clinical data and photographs were anonymized before analysis and publication. Written informed consent was obtained from all patients for treatment and the use of their clinical information and

photographs for academic and publication purposes. The study was conducted in accordance with accepted ethical principles and standards for clinical research.

**Statistical Analysis:** Data were entered into Microsoft Excel and analyzed using the Statistical Package for the Social Sciences (SPSS) software, version 25.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics were used to summarize patient demographics, clinical characteristics, and treatment outcomes. Continuous variables were expressed as mean  $\pm$  standard deviation (SD) or median and range, while categorical variables were presented as frequencies and percentages. Due to the small sample size and descriptive nature of this case series, inferential statistical analyses were not performed. Clinical outcomes were primarily assessed through wound healing progression and comparative evaluation of pre-treatment and post-treatment photographic documentation.

## CASE PRESENTATIONS

### CASE 1

A 30-year-old male patient presented to Chennai Diabetic Foot Care Centre with bilateral lower leg venous ulcers of 3 years' duration involving the lateral aspects of both lower limbs. Clinical examination revealed large, deep ulcers with irregular margins, moderate exudate, mixed granulation tissue, surrounding hyperpigmented eczematous skin, mild edema, local warmth, and prominent varicose veins. A diagnosis of bilateral lower leg venous ulcers was established, and the patient was managed conservatively with regular compression dressing, limb elevation, skin care measures, and patient education. Serial follow-up demonstrated progressive wound healing with reduction in ulcer size, development of healthy granulation tissue, and improvement in the surrounding skin condition. Comparative pre-treatment and post-treatment photographs confirmed significant clinical improvement and favorable healing outcomes following treatment.



**Figure 1A:** Pre-treatment photograph showing bilateral lower leg venous ulcers involving the lateral aspects of both lower limbs.



**Figure 1B:** Post-treatment photograph showing significant wound healing and reduction in ulcer size following compression dressing therapy.

**Notes:** Marked reduction in ulcer size, healthy tissue regeneration, and improvement in the surrounding skin condition were observed during follow-up.

### CASE 2

A 62-year-old male patient with a history of type 2 diabetes mellitus, systemic hypertension, dyslipidemia, chronic kidney disease, and previous left foot surgery presented with an infected left foot wound. The patient reported a chronic ulcer over the left great toe metatarsal head of four years' duration and infected wounds involving the fourth and fifth toes for one week. Clinical examination revealed a 2 × 2 cm trophic ulcer over the left great toe metatarsal head, complete wet gangrene of the fourth and fifth toes with adjacent skin erosion, purulent discharge with foul odor, swelling, erythema, absent distal pulses, and loss of sensation. A diagnosis of left forefoot soft tissue infection with fourth and fifth toe wet gangrene, ascending cellulitis, and sepsis was established. The patient underwent emergency admission, followed by left forefoot wound debridement, bone curettage, and fourth and fifth toe amputation. Subsequent follow-up demonstrated satisfactory infection control, progressive wound healing, preservation of the remaining foot structures, and successful limb salvage. At review, only a small abrasion at the tip of the left fourth toe was noted following minor trauma, which was managed with cleaning and dressing. The patient was advised to continue regular medications, use surgical footwear, and limit walking. Clinical and photographic follow-up confirmed favorable healing and resolution of infection.



**Figure 2A:** Pre-treatment photograph showing left forefoot soft tissue infection with wet gangrene involving the fourth and fifth toes.

**Notes:** The patient presented with chronic diabetic foot ulceration complicated by severe infection, wet gangrene, ascending cellulitis, and sepsis requiring urgent surgical intervention.



**Figure 2B:** Post-treatment photograph showing satisfactory healing following debridement, bone curettage, fourth and fifth toe amputation.

**Notes:** Resolution of infection, healthy granulation tissue formation, and preservation of the remaining foot structures were observed during follow-up.

### CASE 3

An 81-year-old male patient presented to Chennai Diabetic Foot Care Centre with a non-healing wound involving the right great toe. Clinical examination revealed an infected wound with underlying tissue involvement requiring surgical intervention. Based on the clinical findings, wound debridement and bone curettage were performed, followed by regular wound care and dressing changes. The patient was closely monitored during follow-up, which demonstrated progressive wound healing with healthy granulation tissue formation and reduction in wound size. Following adequate wound bed preparation, secondary suturing was performed, resulting in satisfactory wound closure and complete healing. Comparative pre-treatment and post-treatment photographs confirmed significant clinical improvement and successful treatment outcome.



**Figure 3A:** Pre-treatment photograph showing a non-healing wound involving the right great toe prior to debridement and bone curettage.

**Notes:** The wound exhibited signs of infection with unhealthy tissue and delayed healing at presentation.



**Figure 3B:** Post-treatment photograph showing complete wound healing following secondary suturing and comprehensive wound care management.

**Notes:** Healthy tissue formation and satisfactory wound closure were achieved during follow-up.

#### CASE 4

A 75-year-old female patient presented to Chennai Diabetic Foot Care Centre with a wound involving the dorsum of the right foot associated with eczema. Clinical examination revealed a chronic wound with surrounding skin changes and tissue loss requiring advanced wound management. Following thorough wound assessment, debridement was performed, and the patient subsequently underwent split-thickness skin grafting (STSG) followed by secondary suturing. Regular follow-up visits demonstrated progressive wound healing with successful graft uptake, improvement in tissue integrity, and complete epithelialization. Comparative pre-treatment and post-treatment photographs confirmed significant clinical improvement and satisfactory wound healing outcomes.



**Figure 4A:** Pre-treatment photograph showing a wound over the dorsum of the right foot with surrounding eczematous skin changes.

**Notes:** The wound demonstrated tissue loss with surrounding skin inflammation and delayed healing at presentation.



**Figure 4B:** Post-treatment photograph showing complete wound healing following split-thickness skin grafting and secondary suturing.

**Notes:** Successful graft uptake with complete epithelialization and restoration of healthy tissue was observed during follow-up.

#### CASE 5

A 51-year-old male patient presented to Chennai Diabetic Foot Care Centre with a non-healing ulcer over the left heel of 6 months' duration. Clinical examination revealed a deep wound associated with soft tissue infection and underlying osteomyelitis, resulting in significant tissue destruction and delayed healing. Following comprehensive wound assessment, the patient underwent wound debridement, infection control measures, and split-thickness skin grafting (STSG) as part of the treatment protocol. Regular follow-up demonstrated progressive wound healing with successful graft uptake, reduction in wound size, and restoration of healthy tissue. Comparative pre-treatment and post-treatment photographs confirmed significant clinical improvement and favorable wound healing outcomes.



**Figure 5A:** Pre-treatment photograph showing a non-healing left heel ulcer with associated soft tissue infection and osteomyelitis.

**Notes:** The wound exhibited extensive tissue involvement with signs of infection and delayed healing at presentation.



**Figure 5B:** Post-treatment photograph showing significant wound healing following debridement and split-thickness skin grafting.

**Notes:** Healthy tissue regeneration, successful graft uptake, and marked reduction in wound size were observed during follow-up.

#### CASE 6

A 58-year-old male patient presented to Chennai Diabetic Foot Care Centre with a non-healing wound

involving the right great toe complicated by abscess formation. Clinical examination revealed a deep infected wound with surrounding inflammation and tissue involvement. Following comprehensive wound assessment, incision and drainage of the abscess were performed, followed by wound debridement, Dermacel application, vacuum-assisted closure (VAC) therapy, and nail avulsion as indicated. Regular follow-up demonstrated progressive wound healing with reduction in wound size, control of infection, development of healthy granulation tissue, and improvement in overall wound appearance. Comparative pre-treatment and post-treatment photographs confirmed significant clinical improvement and successful wound healing following the multidisciplinary treatment approach.



**Figure 6A: Pre-treatment photograph showing an infected right great toe wound with abscess formation and surrounding inflammation.**

**Notes:** The wound demonstrated significant infection, tissue involvement, and purulent collection with delayed healing at presentation.



**Figure 6B: Post-treatment photograph showing significant wound healing following incision and drainage, VAC therapy, and comprehensive wound care management.**

**Notes:** Resolution of infection, healthy granulation tissue formation, and marked wound healing were observed during follow-up.

#### CASE 7

A 50-year-old male patient presented to Chennai Diabetic Foot Care Centre with a non-healing ulcer involving the left third toe. Clinical examination revealed extensive tissue damage with underlying infection, necessitating surgical intervention. Following comprehensive assessment, amputation of

the affected third toe was performed to control the infection and prevent further tissue destruction. Postoperatively, the patient received regular wound care, infection management, and secondary wound suturing. Serial follow-up demonstrated satisfactory wound healing with healthy tissue formation, complete wound closure, and resolution of infection. Comparative pre-treatment and post-treatment photographs confirmed significant clinical improvement and a favorable treatment outcome.



**Figure 7A: Pre-treatment photograph showing a non-healing ulcer involving the left third toe with extensive tissue involvement.**

**Notes:** The wound exhibited severe tissue destruction with evidence of infection and delayed healing at presentation.



**Figure 7B: Post-treatment photograph showing complete wound healing following third toe amputation and secondary wound suturing.**

**Notes:** Satisfactory wound closure, healthy tissue formation, and resolution of infection were observed during follow-up.

#### CASE 8

A 70-year-old male patient presented to Chennai Diabetic Foot Care Centre with a non-healing wound involving the right forefoot and great toe. Clinical examination revealed extensive tissue involvement with signs of infection and underlying bony pathology requiring surgical management. Following comprehensive wound assessment, wound debridement and bone curettage were performed to remove infected and non-viable tissue. Subsequently, split-thickness skin grafting (STSG) was carried out to facilitate wound closure and tissue regeneration. Regular follow-up demonstrated successful graft

uptake, progressive wound healing, reduction in wound size, and restoration of healthy tissue. Comparative pre-treatment and post-treatment photographs confirmed significant clinical improvement and favorable wound healing outcomes.



**Figure 8A: Pre-treatment photograph showing a non-healing wound involving the right forefoot and great toe with extensive tissue involvement.**

**Notes:** The wound demonstrated significant tissue loss with infection and exposure of underlying structures at presentation.



**Figure 8B: Post-treatment photograph showing significant wound healing following debridement, bone curettage, and split-thickness skin grafting.**

**Notes:** Successful graft uptake, healthy granulation tissue formation, and marked wound closure were observed during follow-up.

#### **CASE 9**

A 53-year-old female patient presented to Chennai Diabetic Foot Care Centre with a non-healing ulcer involving the left foot. Clinical examination revealed a chronic wound with tissue loss and delayed healing, affecting the patient's mobility and quality of life. Following comprehensive wound assessment, the patient underwent wound debridement and received appropriate wound care management, including regular dressings, infection control measures, and offloading as required. Serial follow-up demonstrated progressive wound healing with reduction in wound size, development of healthy granulation tissue, and restoration of tissue integrity. Comparative pre-treatment and post-treatment photographs confirmed significant clinical improvement and successful wound healing following treatment.



**Figure 9A: Pre-treatment photograph showing a non-healing ulcer involving the left foot with surrounding tissue involvement.**

**Notes:** The wound demonstrated chronic tissue loss with delayed healing and surrounding inflammatory changes at presentation.



**Figure 9B: Post-treatment photograph showing complete wound healing and restoration of healthy tissue following comprehensive wound care management.**

**Notes:** Significant wound closure, healthy tissue regeneration, and satisfactory healing were achieved during follow-up.

## **RESULTS**

A total of nine patients were included in this case series, comprising six males and two females, with ages ranging from 30 to 81 years. The study population presented with various lower extremity wounds, including venous ulcers, diabetic foot ulcers, soft tissue infections, osteomyelitis, and chronic non-healing wounds. All patients underwent individualized wound management based on the severity and nature of the wound.

Clinical improvement was observed in all eight cases following treatment. Progressive wound healing was demonstrated by reduction in wound size, development of healthy granulation tissue, successful graft uptake where applicable, resolution of infection, and complete or near-complete wound closure. Surgical interventions including debridement, bone curettage, split-thickness skin grafting (STSG), incision and drainage, vacuum-assisted closure (VAC) therapy, toe amputation, and secondary suturing were performed when indicated. Comparative assessment of pre-treatment and post-treatment photographs confirmed significant

improvement in wound appearance and healing outcomes across all cases. No major treatment-related

complications were observed during the follow-up period.

**Table 1: Clinical Characteristics and Outcomes of the Study Patients**

Case	Age (Years)	Gender	Clinical Diagnosis	Treatment Provided	Outcome
1	30	Male	Bilateral lower leg venous ulcers	Compression dressing and supportive care	Significant wound healing
2	62	Male	Left forefoot soft tissue infection with fourth and fifth toe wet gangrene, ascending cellulitis, and sepsis	Debridement, bone curettage, fourth and fifth toe amputation, wound care	Resolution of infection, limb salvage, and favorable wound healing
3	81	Male	Right great toe wound	Debridement, bone curettage, secondary suturing	Complete wound healing
4	75	Female	Right foot dorsal wound with eczema	Debridement, STSG, secondary suturing	Complete epithelialization
5	51	Male	Left heel soft tissue infection with osteomyelitis	Debridement and STSG	Significant wound healing
6	58	Male	Right great toe wound with abscess	Incision and drainage, Dermacel, VAC therapy, nail avulsion	Resolution of infection and wound healing
7	50	Male	Left third toe ulcer	Third toe amputation and secondary suturing	Complete wound healing
8	70	Male	Right forefoot and great toe wound	Debridement, bone curettage, STSG	Successful graft uptake and wound healing
9	53	Female	Left foot ulcer	Debridement and wound care management	Complete wound healing

Overall, all patients demonstrated favorable clinical outcomes, with marked improvement observed both clinically and through photographic documentation. The findings highlight the effectiveness of comprehensive wound care and individualized treatment strategies in the management of chronic lower extremity wounds.

## DISCUSSION

Diabetic foot ulcers and chronic lower extremity wounds remain a significant cause of morbidity among patients, often resulting in prolonged hospitalization, reduced quality of life, and an increased risk of lower limb amputation.<sup>[1,2]</sup> Effective management requires a multidisciplinary approach involving early diagnosis, meticulous wound care, infection control, pressure offloading, and timely surgical intervention when necessary.<sup>[3,4]</sup> The present case series demonstrates favorable clinical outcomes in eight nine patients with chronic wounds managed at Chennai Diabetic Foot Care Centre using individualized treatment strategies.

The patients included in this study presented with a variety of wound etiologies, including venous ulcers, diabetic foot ulcers, soft tissue infections, osteomyelitis, and chronic non-healing wounds. Despite differences in wound characteristics and severity, all patients showed progressive wound healing following appropriate treatment. Surgical procedures such as wound debridement, bone curettage, split-thickness skin grafting (STSG), incision and drainage, vacuum-assisted closure (VAC) therapy, toe amputation, and secondary suturing played a crucial role in achieving favorable outcomes in selected cases.<sup>[5,6]</sup>

Regular wound assessment and timely intervention contributed significantly to the healing process.

Debridement facilitated the removal of necrotic tissue and reduced the microbial burden, thereby promoting healthy granulation tissue formation.<sup>[6]</sup> Advanced wound care modalities, including VAC therapy and skin grafting, further enhanced wound healing and tissue regeneration in patients with complex wounds.<sup>[7,8]</sup> The successful outcomes observed in this series are consistent with previous studies highlighting the importance of comprehensive wound care in the management of chronic lower extremity wounds.<sup>[4,5]</sup>

Photographic documentation served as an effective adjunct to clinical assessment by providing objective visual evidence of wound progression and treatment response. Comparative evaluation of pre-treatment and post-treatment photographs demonstrated substantial improvement in wound appearance, reduction in wound size, successful graft uptake, and complete or near-complete wound closure in all cases. Such visual documentation has been recognized as a valuable tool for monitoring wound healing and evaluating treatment effectiveness.<sup>[8,9]</sup>

The findings of this case series suggest that individualized treatment protocols combined with regular follow-up can achieve satisfactory healing outcomes even in complex and long-standing wounds. Similar observations have been reported in previous studies emphasizing the role of multidisciplinary diabetic foot care in reducing complications and improving healing rates.<sup>[10-13]</sup> However, the study is limited by its small sample size, retrospective design, and absence of a control group. Larger prospective studies with longer follow-up periods are required to further validate these findings and establish standardized treatment protocols for chronic wound management.<sup>[14,15]</sup>

Overall, the favorable outcomes observed in this case series emphasize the importance of early

intervention, multidisciplinary care, and evidence-based wound management strategies in improving healing outcomes and reducing complications among patients with diabetic foot and chronic lower extremity wounds.<sup>[1,2,4,15]</sup>

#### **LIMITATIONS**

This study has certain limitations that should be considered while interpreting the findings. The case series included a small sample size of only nine patients, which limits the generalizability of the results to a larger population. The retrospective design and lack of a control group prevented direct comparison of treatment outcomes with other management approaches. Additionally, variations in wound type, severity, comorbidities, and treatment modalities among patients may have influenced the healing outcomes. The relatively short follow-up period also limited the assessment of long-term wound recurrence and durability of treatment success.

#### **PATIENT CONSENT**

Written informed consent was obtained from the patient for publication of this case report and accompanying clinical images. The patient was informed that all reasonable efforts would be made to maintain confidentiality and anonymity.

#### **ETHICAL APPROVAL**

Institutional ethical approval was waived because this study represents a single case report and does not involve experimental intervention or identifiable patient information.

#### **CONFLICT OF INTEREST**

The authors declare no conflict of interest.

#### **FUNDING**

No financial support or funding was received for this study.

### **CONCLUSION**

This case series highlights the successful management of nine patients with chronic lower extremity wounds treated at Chennai Diabetic Foot Care Centre. Comprehensive wound care, timely surgical interventions, infection control, and regular follow-up contributed to favorable healing outcomes in all cases. Comparative assessment of pre-treatment and post-treatment photographs demonstrated significant clinical improvement, including reduction

in wound size, healthy granulation tissue formation, successful graft uptake, and complete or near-complete wound healing. The findings emphasize the importance of individualized treatment strategies and multidisciplinary wound care in achieving optimal outcomes for patients with diabetic foot ulcers and other chronic wounds. Further prospective studies with larger sample sizes are warranted to validate these findings and strengthen the evidence for effective wound management practices.

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