

Limb Salvage and Healing of a Diabetic Ulcer Complicated by Infection and Achilles Tendon Rupture Through a Multidisciplinary Approach: A Case Report

J. Venerová¹, K. Bušková², L. Fialová¹, A. Končická¹, D. Janíčková Žďárská¹, M. Kosák¹

¹Podiatry Outpatient Clinic, Department of Medicine, 1st Faculty of Medicine, Charles University and Military University Hospital Prague

²Department of Orthopaedics, 1st Faculty of Medicine, Charles University and Military University Hospital Prague

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Background

Diabetic foot ulcers represent a serious complication of diabetes mellitus and are associated with a high risk of infection, tissue destruction, and limb loss. Management of complex cases requires a multidisciplinary approach.

Case Presentation

A 77-year-old polymorbid woman with T2DM (HbA1c 66 mmol/mol) was first examined at a foot clinic in October 2025 for a necrotic neuropathic ulcer of the left heel measuring 4.6 × 6 cm, which had developed in 10/2025 from a shoe-induced blister.

On initial assessment, peripheral neuropathy was confirmed, with preserved toe pressures and no evidence of ischemia. The patient was indicated for larval therapy during hospitalization, and antibiotic treatment was initiated according to culture sensitivity. The left lower limb was offloaded using an orthosis, and antidiabetic therapy was optimized, resulting in improved glycemic control.

The heel ulcer showed gradual healing; however, a pocket with fluid retention developed along the Achilles tendon (AT). X-ray imaging raised suspicion of calcaneal osteomyelitis.

In 12/2025, rupture of the AT occurred, accompanied by the formation of a new dorsal defect approximately 10 cm proximal to the tendon insertion. Orthopedic evaluation did not confirm osteomyelitis. Due to the defect and infection at the rupture site, the patient was indicated for surgical revision, extensive debridement, and subsequent secondary healing; below-knee amputation was considered in case of treatment failure.

During surgery, the necrotic portion of the AT protruding from the wound was excised, along with fistula excision, extension of the incision proximally and distally, and debridement of non-viable soft tissues. Retention sutures were placed, and an Instillation Negative Pressure Wound Therapy (Prontosan: 8 mL, 6-minute dwell time, instillation every hour; V.A.C. ULTA system) was applied.

During hospitalization, repeated foam dressing changes and wound dressing changes were performed in the operating room. After discharge, outpatient care continued with gradual suture removal and moist wound healing. The heel ulcer healed completely in 2/ 2026, and the Achilles tendon defect in 4/2026.

Conclusion

This case report describes a complicated healing process of an extensive diabetic neuropathic heel ulcer complicated by infection and Achilles tendon rupture. Successful limb salvage was achieved through intensive and coordinated multidisciplinary care.



1. Necrotic defect of the left heel at baseline



2. Wound before and after larval therapy during hospitalization.



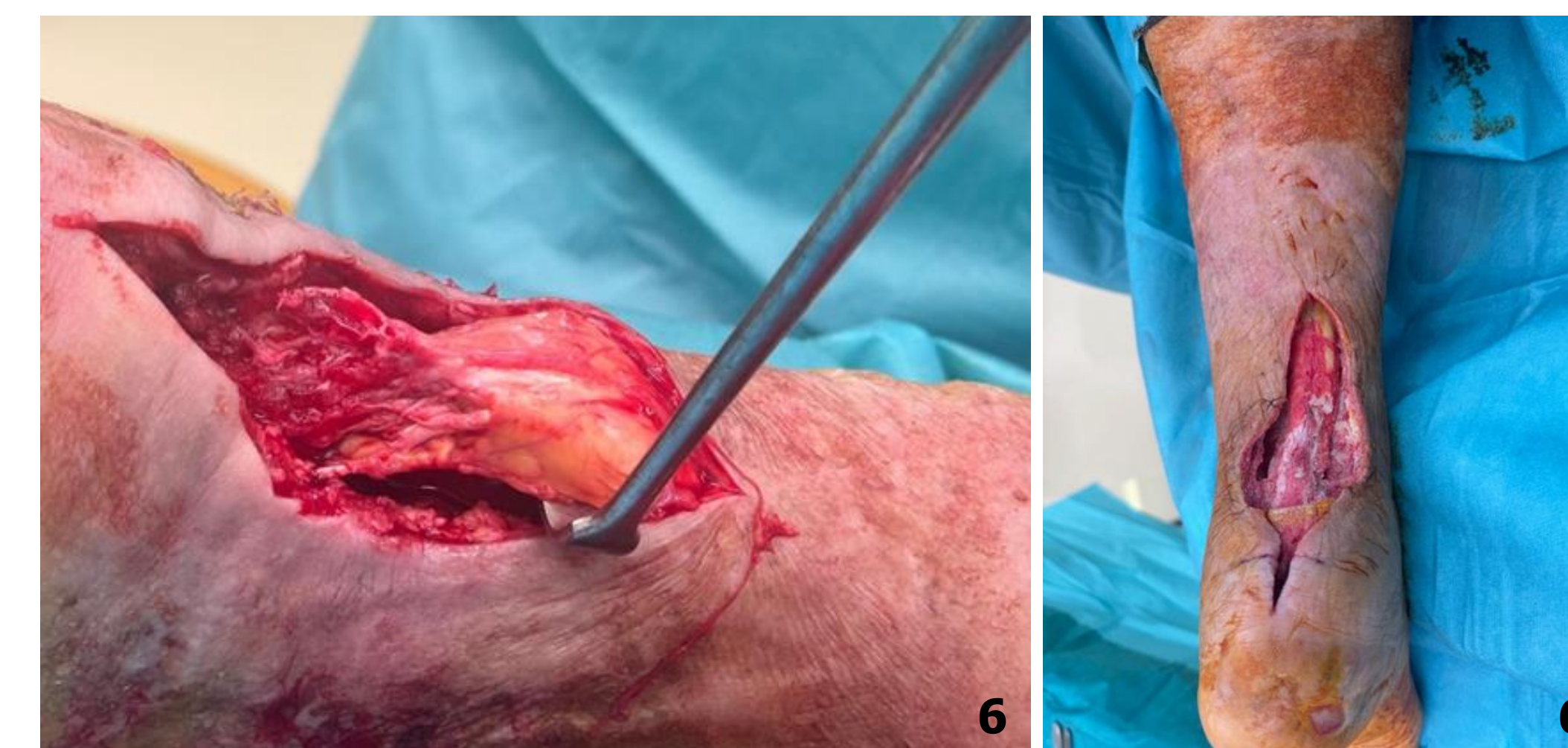
3. Wound healing during outpatient treatment



4. X-ray of the left calcaneus



5. Achilles tendon rupture with development of a new wound 10 cm proximal to the tendon insertion on the calcaneus



6. Surgical wound revision, excision of the necrotic Achilles tendon, and soft tissue debridement during hospitalization in the Orthopaedic Department



7. Retention sutures placed in the wound



8. Instillation NPWT (V.A.C. ULTA™ system) with repeated foam dressing changes and wound dressing changes performed in the operating room.



9. Residual wound in the Achilles tendon region with a healed heel wound



10. Complete healing of both the heel and Achilles tendon wounds

