

Supplementary material, Case 1

A 68-year-old male with history of uncontrolled Type II Diabetes for 15 years presented with single shallow large diabetic foot ulcer on the left sole (plantar aspect) with foul smelling discharge and surrounding oedema. It was not responding to consistent conventional treatment in the last two years. During last two years, he had received different antibiotic courses orally and parenterally for many times and local wound care with different antibiotic ointments and antiseptics without improvement in the presentation of ulcer(**Figure1.A**). Patient was a chain smoker but non-alcoholic. A quantitative culture of pus discharge yielded three different types of bacterial isolates in significant numbers (10^5 bacteria per ml of discharge). The bacterial isolates were *P. aeruginosa* susceptible to susceptible to imipenem, *Proteus* spp. susceptible to ceftazidime and methicillin resistant *Staph. aureus* susceptible to linezolid. X-ray for osteomyelitis was negative.

Management:

Local wound dressing with three percent citric acid ointment was started. It was applied once daily after irrigation and washing ulcer with normal saline. The ulcer was completely filled with citric acid ointment and four to five dressing pads were kept over the ulcer and dressed. The purpose was to reduce the pressure on ulcer so that no/minimum damage is produced on walking to epithelization that occurs following the application of citric acid ointment. No additional antibiotics were given after the initiation of citric acid therapy.

Outcome

Ulcer showed significant improvement following application of citric acid ointment (**Figure1.B and C**) and healed completely in 43 applications in 43 days (**Figure1.D**).

Supplementary material, Case 2

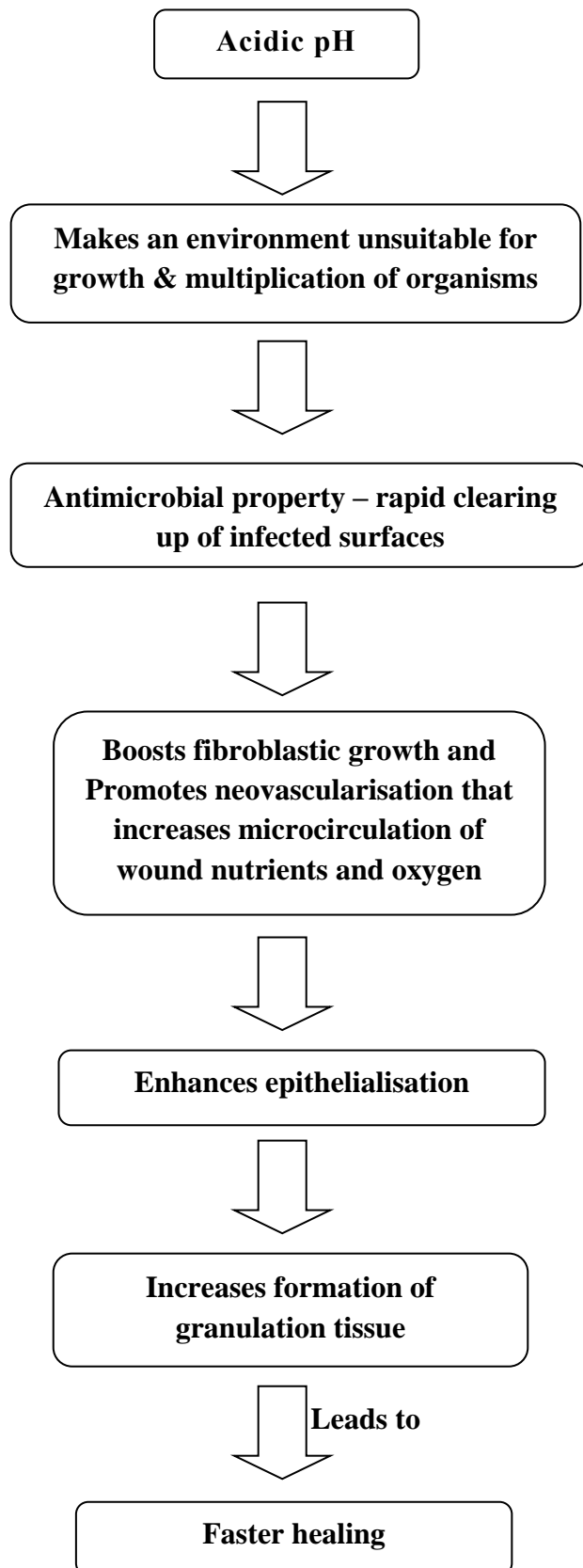
A 70-year-old male with history of uncontrolled Type II Diabetes for 12 years presented with irregular shaped, solitary, non-healing ulcer on the left sole (plantar aspect) extending from proximal half of second toe to mid foot measuring approximately 8 X 2.5 X 1 centimetre. The floor of the ulcer is covered with slough, pink granulation tissue and foul-smelling discharge. The base of the ulcer was fixed and indurated. Joint movements were painful. Peripheral pulsation was normal. X-ray of the foot was normal. It was not responding to consistent conventional treatment for more than six months (**Figure2.A**). During last six months, he had received different antibiotic courses orally for many times and local wound care with different antibiotic ointments and antiseptics without improvement in the presentation of ulcer. There was no history of trauma or burns. A quantitative culture of pus discharge yielded bacterial isolate in significant numbers (10^5 bacteria per ml of discharge). The bacterium isolated was methicillin resistant *Staph. aureus* susceptible to linezolid and vancomycin.

Management:

Local wound dressing with three percent citric acid ointment was started. It was applied once daily after irrigation and washing ulcer with normal saline. The ulcer was completely filled with citric acid ointment and four to five dressing pads were kept over the ulcer and dressed. No additional antibiotics were given after the initiation of citric acid therapy.

Outcome:

Ulcer showed significant improvement following application of citric acid ointment and healed completely in 25 applications in 25 days (**Figure2.B**).



Supplementary Figure 1 Role of acidic pH in healing of infected diabetic foot ulcer.