

Letter to Editor

Are we forgetting to offload the Diabetic foot Ulcers in Rural setup?

Sir,

It is said that, “Coming events cast their shadows before” (Figure 1).

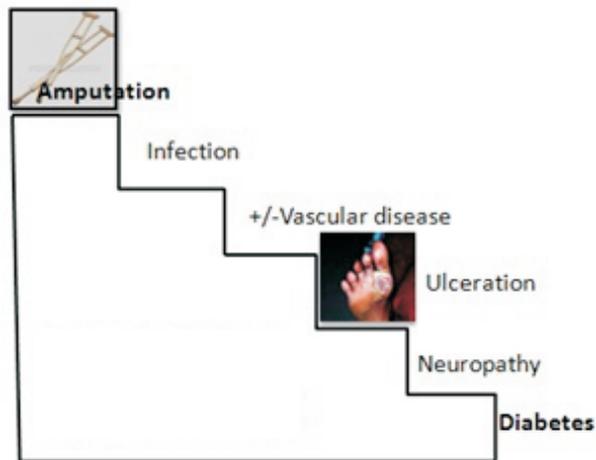


Fig. 1 : Stairway to Amputation

India has the largest number of people with diabetes in the world. Today Indian diabetic population is about 61.3 millions.^[1] That means a total of 122 million foot is at risk of getting diabetic foot ulcer (DFU). Every 3 sec a new case of diabetes is diagnosed and every 30 sec a lower limb is amputated somewhere due to diabetes.^[2] We know that the leading cause of ulceration in the diabetic population is increased plantar foot pressure. These ulcers are commonly present over the first Meta Carpo Phalangyean (MCP) joint, Ball of a great toe, 5th MCP joint and heel

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(Figure 2).

These ulcers will heal only if there is adequate blood supply, control of infection, excellent wound care and 'offloading' or pressure redistribution of the ulcerative area. After proper wound care in the hospital and in due course these ulcers heal and patient gets discharged. But the patient again land up in outpatient department after some time with ulcer on the same area or different area on the foot.

We forget that eighty percent of diabetic foots are neuropathic in India. This leads to loss of sensation in foot and off-loading is a major solution for healing of plantar lesions. Application of antimicrobial solutions or ointments is not the answer to heal these ulcers. All therapeutic efforts are bound to fail if patient continues to walk with the ulcer.

Over the past many years foot surgeons have used numerous approaches including complete bed rest, cutout felt pads, crutches, wheelchairs, zimmer frame, temporary shoes, ortho wedge shoes like rocker-bottom wedge design shoes and total contact casting to offload these ulcers.^[3]

Table 1 shows disadvantages of above methods and other offloading devices in rural setup:

Figure 3 shows two offloading systems which can be applied to patients in a rural setup.^[4,5]

In the first system the hospital wastes such as used gloves, can help us to off-load the body weight at ulcer sites and in the second system items like foam are available even in the remotest corners of the world. Both systems are ideal to offload rural diabetic foot ulcers as they



Fig. 2: Photographs showing common sites of ulcers

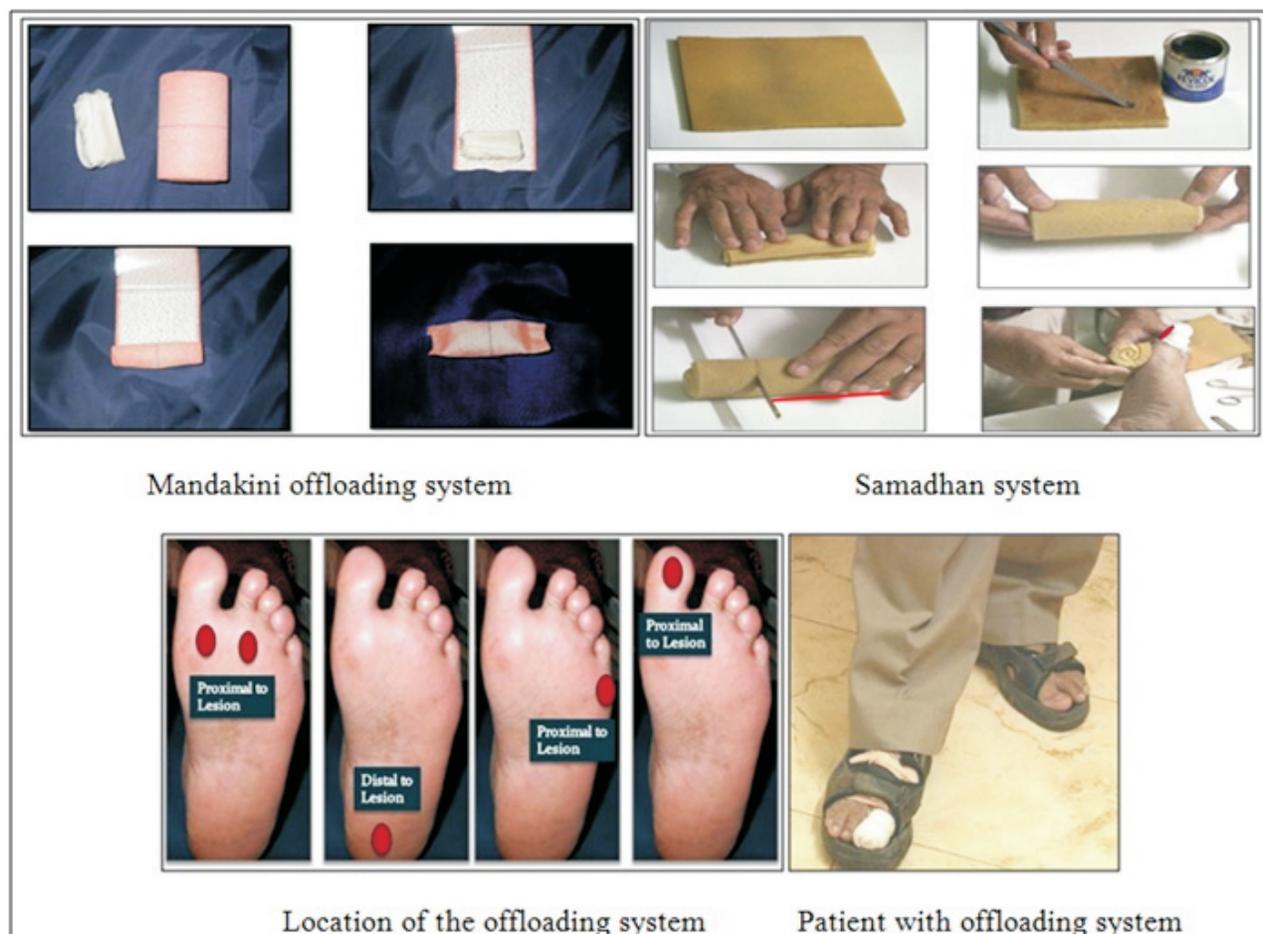


Fig. 3

Table 1: Disadvantages of off loading system in rural setup

| Offloading devices | Not Affordable | Not Available | Need Training | Special | Other Reasons |
|--------------------|----------------|---------------|---------------|---------|---------------|
| Bed rest | ✓ | | | | ✓ |
| Crutches | | | | | ✓ |
| Wheel chair | ✓ | | | | ✓ |
| Half shoes | ✓ | ✓ | | | |
| TCC | ✓ | ✓ | ✓ | | |
| Air cast | ✓ | ✓ | ✓ | | |
| CFW | ✓ | ✓ | | | |

are patient compliant, easy to apply, cost effective, does not require special training, effective in healing the wound, ambulation with device is comfortable, can be accommodated in diabetic foot wear with ease and can be practiced at all levels of rural healthcare systems like primary and community health centre and by the paramedical staff.

To conclude, it is rightly said that it is only with simple things we can reach and serve the masses. Both the devices are being used regularly at RLJ Hospital, Kolar and many other centers since they are well accepted and there are no complaints from patients. They are easy to use, economical and are effective in healing the rural diabetic foot ulcers.

REFERENCES:

1. International diabetes federation. The global burden. Web. <http://www.idf.org/diabetesatlas/5e/the-global-burden>.
2. Ahmed ME, Apel Q visit J, Donohue N, Edress K, Gawish HME, Lavery L, et al. Time to act. Netherlands : Los Druk and Design BV Naardeen; 2005.20p.
3. Pinzur MS, Dart HC. Pedorthic management of the diabetic foot. *Foot Ankle Clin* 2001; 6(2):205-214.
4. Sunil V Kari. The economical way to off-load diabetic foot ulcers Mandakini off-loading device. *Indian J Surg* 2010; 72(2):133-134.
5. Shankhdhar K. Improvisation is the Key to Success: The Samadhan System. *Adv Skin Wound Care* 2006; 19: 379-83.

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