

DIABETIC FOOT RECURRENCE RATE BETWEEN 2010 AND 2017: CAN WE DO BETTER?

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Background:

The prevalence of diabetes among Saudi population is almost 24%, and mainly type 2 due to life style changes and some genetic background. The worrying high rate of recurrence of diabetic foot ulceration requires a new management approach. John D. Miller et al report the annual recurrence rates of diabetic ulcerations as high as 34%, 61%, and 70% at 1, 3, and 5 years, respectively, with studies reporting 20% to 58% recurrence rate within 1 year. Therefore, we should not only focus on fast ulcer healing but also maximizing diabetic foot in remission. So, our study aim is to see if we succeed to keep most our patient in remission.

Methods:

Medical podiatric records of 1010 healed diabetic foot ulcers between 2010 and 2017 were collected. Podiatric medical exam includes sensory testing using vibration perception threshold (VPT), vascular status evaluation was based on pedal pulses palpation and/or ankle brachial pressure index (ABPI). Wound care was done up on the standard of the International Working Group on the Diabetic Foot [IWGDF] (debridement, infection control, vascular control, and offloading). Wound assessment was done up on PEDIS classification and Healed wound was defined as complete closure without discharge. Patient was considered with recurrence ulcer if he developed a new ulcer in the same site of the previous healed one.

Results:

Most of our patients were quite young with a mean age of 58.5 ± 0.6 , 94.2% were neuropathic (VPT >25) and 35.13% were found to have abnormal ABI. Mean diabetes duration was 17.9 ± 0.4 and diabetes was poorly managed with a mean HbA1c of 9.4 ± 0.1 . 60% of patients had some degree of foot deformity while Charcot neuro-arthropathy was present among 7.8%. Wound baseline was 47.35 weeks. and Wounds type were mainly neuropathic and located at the planter aspect of the foot with a mean size of 5.2 cm². Among healed patients, 45% had more history of ulceration and 22% amputation 22%. The Mean Recurrence Rate per year was 13.82% compared to 40% reported by Armstrong et al. 2017.

Conclusion:

Appropriate therapy during active foot ulceration coupled with a special insight on improving care in regard to IWGDF while keeping patients in remission can lead to more ulcer-free days, less inpatient and outpatient consultation, and better quality of life.

Recommendation:

The role of the multidisciplinary team (MDT) with specialized foot care nurse and implementation of appropriate local policy to face the increasing rate of ulceration and recurrence nationally and internationally.

N=1010	2010	2011	2012	2013	2014	2015	2016	2017
Healed patients	162	194	164	125	90	73	97	105
Recurrence Rate	23 14.20%	31 15.98	26 15.85%	19 15.20%	12 13.33%	9 12.33%	11 11.34	13 12.38

Keywords:

Telemedicine, Telecardiology, Business Plan, Pre-participation Screening, cost-effectiveness, Prevention in athlete's.