Current Update On Diabetic Foot Ulcers Management - Non-Surgical

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Foot ulcers affect one in ten patients with diabetes mellitus during their lifetime. The classic triad: peripheral neuropathy, peripheral arterial disease (vasculopathy), and immunopathy, is the precursor of the final pathologic event of foot deformity, ulcers and gangrene which lead to amputation in patients with diabetes mellitus. Foot deformities lead to an abnormal pattern in gait that contributes to high plantar pressure distribution causing ulceration and loss of limbs. These in turn increase morbidity and mortality of the patients.

Managing diabetic foot ulcers is very challenging as these results from multiple aetiopathogenesis and thus holistic approach and comprehensive management through interdisciplinary and multidisciplinary team approach is mandatory to improve clinical outcome.

Biochemical issues (diabetic control), biomechanics issues, vascular issues (ischaemia) must be assessed properly. Identification of the nature and severity of the ulcers by using appropriate wound staging will assist with the management plan. Reduction of plantar pressure (off-loading) over the ulcers is one of the key factors in managing diabetic foot ulcers (DFU). There are various types of off-loading methods ranging from customized insoles with a cut-out over the wound, POP total contact cast and orthoses which play a major role in managing patient with DFU. All these methods help to reduce plantar pressure and promote healing, provide stability and control over abnormal motion of the foot and ankle joint and prevent progressive foot deformities.

The "TIME" concept is commonly used for wound bed preparation in managing DFU. This encompasses tissue management, inflammation and infection control, moisture balance, and epithelial (edge) advancement. Choice of appropriate dressing material is crucial in managing DFU to control biofilms formation and promote wound healing.

Patients' education on diabetes mellitus and diabetic foot care must be addressed and periodic review is needed

In conclusion, proper assessment of neuropathy, vasculopathy, immunopathy and timely intervention of DFU will reduce morbidity and mortality of the patients and improve their quality of life (QoLs).