THREE YEARS EXPERIENCE OF TREATING 46 PAINFUL DIABETIC FOOT ULCERS WITH POLYMERIC MEMBRANE DRESSINGS*

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**Introduction**

The term “diabetic foot disease” (DFD) refers to a number of diseases that might involve any part of the tissues of a diabetic foot, including the skin, the soft tissues, and the osseous structures of the foot. The major causes of diabetic foot disease are peripheral arterial disease, diabetic neuropathy, biomechanical alterations in the structure of the foot, lower limb edema, hyperglycemia.

Early recognition and proper wound care are crucial to a good outcome for most diabetic foot ulcers. Other foot ulcers may lead to serious infection, gangrene and lower extremity amputation. Another major problem faced by the diabetic patients with DFD lead to serious infection, gangrene and lower extremity amputation.

In our Clinic we manage diabetic foot ulcers on the following universal principles: cleansing, debridement, control of exudate, preventing wound trauma and infection and also controlling pain. Even more we take into account changes in the skin such as appearance, structure, mechanical properties and barrier function due to aging.

**Aim**

Based on our clinical observations we came to the conclusion that we need to use a dressing that preserves the integrity of the ageing skin, is atraumatic, pain free, controls exudate and prevent infection, and suitable to the local clinical conditions of the diabetic foot. Therefore we decide to use a polymeric membrane dressing* (PMD) which has all these characteristics and works in a unique way promoting healing.

We had treated 46 patients since 2009 with diabetic foot ulcers and mean age of 83. Two patient died due to other complications but their foot ulcers were nearly healed. All other patients were successfully treated.

**Method**

We have treated 46 patients since 2009 with painful Diabetic Foot Ulcers.

15 were infected prior to treatment and initially treated with i.v. antibiotics. 6 were referrals after partial or below knee amputation. The rest were treated in their homes or at our nursing home. Exudate levels determined which type of PMD to be used.

**Results**

Within weeks pain levels dropped from an average of 8 to pain-free. The below knee amputations suffered from phantom pain but were helped by medication. Two patients died due to complications and 13 patients were treated at the rehabilitation center until full recovery, the rest were treated in their homes. The average healing time was between 4-6 months and we saw no infections during this period.

**Discussion**

At our Clinic we focus on continuous debridement, exudate control, preventing wound trauma and infection and pain control. We also take into account changes in the skin such as appearance, structure, mechanical properties and barrier function due to aging. PMDs help us achieve our goals, as a single treatment modality it’s effective for all phases of wound healing and doesn’t require additional treatments or additives. As it is impossible to show all cases here I am presenting a representative selection of cases to show how the PMD works and supports our initial decision of using it as a single modality treatment.

**References**

3. Walter JM, Mabach H (2006), Age and Skin structure and function, a quantitative approach (ii): protein, glycosaminoglycans, water and lipid content and structure. Skin Research Technology, 21(3) pp 149-154

*PolyMem® Wound Dressings with and without Silver. Manufactured by Ferris Mfg, 5133 Northeast Parkway, Fort Worth, TX, 76106, USA. This case series was unsponsored.