

[EP028] Value, safety, effectiveness and outcome of a new biological dressing based on collagen and hyaluronic acid in treatment of non-infected and non-ischemic dorsal and plantar diabetic foot ulcers: a prospective, non-controlled observational study

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Aim: Value, safety, effectiveness and outcome of a new biological dressing based on collagen and hyaluronic acid in treatment of non-infected and non-ischemic dorsal and plantar diabetic foot ulcers: a prospective non-controlled, observational study with 42 patients. The clinical endpoints were: healing time, healing rate, percentage of reduction of ulcer area.

Method: Protocol for treatment of out-patients affected by diabetic foot ulcer are characterized by different dressing to be applied during tissue repairing process as described by TIME approach. Since nonspecific dressing were suggested for remodeling phase, we decide to study a new biological dressing consisting of matrix made by native horse collagen Type 1 and hyaluronic acid on dorsal and plantar not-ischemic, not-infected diabetic ulcer. We enrolled consecutively, from March 2017 to February 2018, 42 diabetic patients (35 patients with dorsal ulcers and 7 patients with plantar ulcers) with TcPo₂ >30 mmHG. Treatment protocol consists of:

- Revascularization procedures when needed
- Surgical debridement when needed with removal of callus and non-vital tissue with bleeding of wound bed
- Rinsing with H₂O₂ followed by sterile saline solution
- Hemostasis
- Apply of HYAFF/Collagen (HYALO4 Regen Pad)
- Dressing with grease gauze and secondary inert dressing
- Dressing changes every four days (removal of grease gauze and new dressing)
- Post-surgical shoes in case of dorsal ulcer
- TCC in plantar ulcer if no contraindication
- Photo and ulcer measurement at each visit



Results / Discussion: The mean age of the patients was 72 ± 12 . The treatment period was 93 ± 76 days. The healing rate was 50% (21/42) with total healing time of 87 ± 52 days. Median reduction of wound area was $78\pm 26\%$. Healing rate for plantar ulcer treated by TCC was 100% with healing time of 93 ± 46 days.

Conclusion:

T.I.M.E. approach can be considered in DFU ulcers to obtain a wound bed ready for closure by means of advance dressing according to ulcer characteristics.

T.I.M.E.R. can be considered in DFU the global conservative approach by means of dressing with biological activities to obtain ulcer healing in a shorter period of time with a good repairing tissue quality.

Further studies are needed to confirm our new holistic and global conservative approach in DFU treatment.