Dehydrated Human Umbilical Cord Allograft for the Treatment of a Post-Surgical Amputation Wound of the Right Forefoot

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Abstract

Purpose

Our purpose is to describe the use of dehydrated human umbilical cord allograft in the treatment of a diabetic patient with a post-surgical wound following amputation of the right forefoot.

Case

Case History

- 60 y/o male with a history of insulin dependent Type 2 diabetes, high blood pressure, atherosclerosis and blood clots in legs. The patient’s blood sugars were uncontrolled averaging 200-250 mg/dl.
- The patient was first seen in the hospital with gangrene of the right forefoot and a lower extremity amputation was performed. The wound size was 8 cm x 2.5 cm x 0.3 cm. The patient was seen weekly for debridement and application of dehydrated human umbilical cord allograft followed by standard topical dressings.
- The patient smoked 2 packs per day for over 30 years.
- The patient was first seen in the hospital with gangrene of the right forefoot and a lower extremity amputation was performed.

Treatment with Dehydrated Human Umbilical Cord Allograft

- Initial wound size at first application was 8.0cm x 2.5cm x 0.1cm.
- The patient was seen weekly for debridement and application of dehydrated human umbilical cord allograft followed by standard topical dressings until complete epithelialization occurred.

Results

- The wound completely healed in 4 weeks with 4 applications of dehydrated human umbilical cord allograft and remained healed at 2 months.

Conclusions

- Our experience with this case illustrates that dehydrated human umbilical cord allograft is a viable advanced treatment option for helping to heal a post-surgical wound following amputation.
- The allograft was easy to use, clinically effective and well tolerated by the patient.

Background

Surgical wounds following an amputation often present a difficult treatment challenge for patients and healthcare providers. Dehydrated human umbilical cord allograft is a minimally manipulated, dehydrated, non-viable cellular umbilical cord allograft for homologous use that provides a protective environment for the healing process and provides a connective tissue matrix to replace or supplement damaged or inadequate interstitial tissue.

The allograft consists of an amniotic epithelium and Wharton’s Jelly containing extracellular matrix composed of collagen, proteoglycans and hyaluronic acid. Our purpose is to describe the use of dehydrated human umbilical cord allograft in the treatment of a diabetic patient with a post-surgical wound following amputation of the right forefoot.

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