The effect of allogenic keratinocytes (Kaloderm®) as biological wound dressing for chronic foot ulcers in patients with type 2 diabetes mellitus

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My disclosure is in the Final AOFAS Program Book
I have no potential conflicts with this presentation
Introduction

- Chronic foot ulcer is one of the most common problems in diabetic patients
- Wound healing is impaired in diabetic foot\(^1\)
- The healing effect of Keratinocyte on intractable ulcers has been described in the literatures\(^2-4\)
Introduction

• Kaloderm®
  – Korea’s first allogenic Keratinocyte product as biological wound dressing
  – cultured from infants’ foreskin\(^5\)
  – contains growth factors, cytokines, matrix proteins and their enzymes such as TGF-\(\alpha\), TGF-\(\beta\), bFGF, VEGF, PDGF, IL-1, IL-6, IL-8, GM-CSF, fibronectin and MMPs\(^6\)
Materials and methods

- From May to December 2011
- 24 patients (17 males and 7 females)
- 12 weeks evaluation follow up period
- Weekly visit to change the application and wound dressing
- Treatment failure when the ulcer size increased over 15% at 3 weeks after application
## Materials and methods

### Inclusion criteria

- Type 2 of DM foot ulcers
- Age from 50 up to 80 years old
- Wagner classification grade 1, 2
- More than 6 weeks duration post conventional treatment
- Ulcer size 0.5 – 50 cm²

### Exclusion criteria

- Clinical infection at the studied ulcer site
- Active Charcot’s disease
- Following other treatment
- Non diabetic ulcers
- Significant medical conditions
Case

61/M

May 17\(^{th}\), 2011

May 24\(^{th}\), 2011

June 8\(^{th}\), 2011

June 16\(^{th}\), 2011
Results

• Failure: 8/24 (33.3%)

Average in successful treatment group
• Age: 65.6 years
• Initial wound size: 5.6 cm²
• Complete healing time: 5.2 weeks
• Half-wound reduction time: 2.5 weeks
Conclusion

Kaloderm®

an effective treatment for chronic foot ulcers with type 2 DM

helps to shorten the half-wound reduction time
References


