Human BioSciences

CASE STUDIES REPORT

MEDIFIL® II COLLAGEN PARTICLES & SKIN TEMP® II COLLAGEN SHEETS

Because the Body Heals Itself
Kollagen™
American Technology

Courtesy of: Dr. G. Marunraj, M.B., B.S., M.S., M.Ch., Vascular Surgeon. Kanchipuram, India, Dr. R. Gopinath M. Ch., HOD, Department of Plastic Surgery, MMC, Chennai, India. Dr. Vinayak Senthil, General Surgeon. Chennai, India, Dr. K. P. Kosygan, M.S. Orthopedic Surgeon. Selvam J. Watts, Human BioSciences India Ltd. National Sales Manager & Clinical Trial Associate.

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Case Study #1

Diabetic with Forefoot Wet Gangrene

Patient

A 57-year-old female with a history of uncontrolled diabetes >10 years admitted with left forefoot wet gangrene. Nutritional status fair. Patient underwent left forefoot amputation on 7/16/2020.

Initial Wound Treatment

Patient was ordered an antibiotic type primary dressing, and gauze secondary dressing for 15 days. Wound was not showing evidence of any infection, but the wound was not showing signs of healing progress.

Application of Medifil® II Collagen Particles

Application Medifil® II collagen particles started on 8/3/2020 with every 48 hours frequency of dressing change. There was notable developing granulation and showed signs of wound healing at the end of one month on 9/2/2020.

Clinical Outcomes

9/7/2020 wound fully healed.

Clinical Study References:

- *Dr. G. Marunraj, M.B., B.S., M.S., M.Ch., Vascular Surgeon. Kanchipuram, India.*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate*

Case Study #2

Trauma Injury with Diabetes

Patient History

Patient 47 years old with history of diabetes and endured a trauma bush thorn injury to right lateral heel on 9/4/2020. Wound measurements 0.3x4x0.4cm. Full thickness wounds with 100% yellow slough and moderate purulent exudate. Slight odor after wound cleansing. Debridement performed and the initial treatment an antimicrobial agent was used.

Application of Medifil® II Collagen Particles

Application Medifil® II collagen particles started on 9/4/2020 with every 48 hours frequency of dressing change. Good wound care cleansing and physician monitoring. There was notable developing granulation and showed signs of wound healing.

Clinical Outcomes

9/11/2020 wound fully healed. 100% epithelialization.

Clinical Study References:

- *Dr. G. Marunraj, M.B., B.S., M.S., M.Ch., Vascular Surgeon. Kanchipuram, India.*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate*

Case Study #3

Pressure Injury Non-Healing Flap

Patient History

Patient 32 years old with sacral full thickness unstageable pressure injury presented initially with 100% fluctuant eschar. Eschar removed and wound restaged to stage IV pressure injury.

Application of Medifil® II Collagen Particles

Application of Medifil® II collagen particles started to help prep the wound surface area for rotational flap. Collagen particles applied with every 48 hours frequency of dressing change. Good wound care cleansing and physician monitoring. There was notable developing granulation and showed signs of wound healing prior to surgical flap.

Clinical Outcomes

Flap closure successful and sacral wound fully healed.

Clinical Study References:

- *Dr. R. Gopinath M. Ch. Previous Head of Department of Madras Medical College (MMC) - Plastic Surgeon Chennai, India*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate- Chennai, India*

Case Study #4

Diabetic Foot Ulcer Grade IV

Patient History

Right heel full thickness DFU.

Application of Medifil® II Collagen Particles & Skin Temp® II Dry Kollagen Sheets

Application Medifil® II collagen particles applied to promote granulation and maintain a moist wound healing environment. Collagen particles applied with every 48 hours frequency of dressing change. Good wound care cleansing, debridement, physician monitoring, and appropriate dressing moved wound towards healing trajectory.

Clinical Outcomes

R heel wound fully closed.

Clinical Study References:

- *Mr. S.N. Prabhu B.M. Chennai, India*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate – Chennai, India*

Case Study #5

Non-healing Diabetic Foot Ulcer - Limb Salvage

Patient History

68- year-old male with DFU infection to joint capsule with suspected osteomyelitis. Patient was informed by physician of possible plan to amputate limb. A multidisciplinary team approach included a general and orthopedic surgeon. Patient's wife and daughter are also physicians in Malaysia.

Application of Collagen Product(s)

Initial application of both Medifil® II collagen particles and Skin Temp® II collagen sheets were used on 9/30/12. Deeper areas of wound are where collagen particles were used. There was notable progress by 10/2/12. Debridement of hyperkeratosis and epibole were performed 10/18/12. Mr. Selvam Watts was encouraged to stay in a house provided by family to do consistent wound cleansing and dressing changes. Family emotional over healing results so far. Last dressing performed by Mr. Watts 11/12/12 due to patient traveling from India to Malaysia to be with family. Patient purchased collagen products to take with him.

Clinical Outcomes

Wound fully healed 1/21/13. 100% epithelialization to plantar region.

Clinical Study References:

- *Dr. Vinayak Senthil, General Surgeon Director of Speed Hospital Chennai, India*
- *Dr. Kosygan, Orthopedic Surgeon*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate– Chennai India*

Case Study #6

Hard-to-heal Diabetic Foot Ulcer

Patient History

44- year-old with diabetes (type II) with right foot ulcer 5x2x<0.3cm. Wound bed 100% red granulation with minimal serous exudate. Nutritional status is fair.

Application of Collagen Product(s)

Initial application of Medifil® II collagen particles on 9/11/2020. Frequency of dressing change was every 48 hours. Collagen particles covered with non-woven gauze dressing. No antimicrobial or topical agents were used. Sharp debridement was sequential.

Clinical Outcomes

Wound fully healed 10/9/2020. 100% epithelialization.

Clinical Study References:

- *Dr. G. Marunraj, M.B., B.S., M.S., M.Ch., Vascular Surgeon. Kanchipuram, India.*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate – Chennai India*

Case Study #7

Diabetic Foot Ulcer – Infectious Right Medial Malleolus Wound Primary Dx Insect Bite

Patient History

54- year-old with diabetes (type II) with right malleolus ulcer measuring 8x4x0.3cm. History of foot deformity. Full thickness wound with 100% adherent yellow slough with moderate serosanguineous exudate. Slight odor after cleansing. Nutritional status fair. Footwear used to help offload ulcer.

Application of Collagen Product(s)

Initial application of Medifil® II collagen particles and later Skin Temp® II Dry Kollagen Sheets from 8/31/2020 thru 9/18/2020. Restarted on 9/25/2020 thru 10/9/2020. Frequency of dressing change was every 48 hours. Collagen particles covered with non-woven gauze dressing. Oral antibiotics used in early treatment of wound infection. Sharp debridement was sequential.

Clinical Outcomes

Wound fully healed 10/9/2020. 100% epithelialization.

Clinical Study References:

- *Dr. G. Marunraj, M.B., B.S., M.S., M.Ch., Vascular Surgeon. Kanchipuram, India.*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate – Chennai India*

Case Study #8

Diabetic Foot Ulcer - Right 5th Metatarsal

Patient History

52- year-old with diabetes (type II) presented with right metatarsal ulcer measuring 2x2x<0.2cm non-healing for months. Full thickness wound with 100% adherent yellow slough with moderate serosanguineous exudate. Periwound maceration noted. Slight odor after cleansing. Nutritional status fair.

Application of Collagen Product(s)

Oral antibiotics used in early treatment of wound infection. Swab aerobic culture performed with final identification of organism grown Klebsiella spp present. Xray also done showing diabetic foot osteomyelitis (DFO). Right 5th toe was partially amputated due to DFO. Initial application of Medifil® II collagen particles on 10/9/2020. Frequency of dressing change was every 48 hours. Collagen particles covered with non-woven gauze dressing.

Clinical Outcomes

Wound fully healed post partial amputation 11/9/2020.

Clinical Study References

- *Dr. G. Marunraj, M.B., B.S., M.S., M.Ch., Vascular Surgeon. Kanchipuram, India.*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate – Chennai India*

Case Study #9

Diabetic Foot Ulcer – Left 2nd Metatarsal

Patient History

70- year-old with diabetes (type II) presented with left 2nd metatarsal ulcer with gangrene. Amputation of 2nd metatarsal. Full thickness wound with 100% adherent yellow slough with heavy sanguineous exudate and strong odor after cleansing. Nutritional status fair.

Application of Collagen Product(s)

Oral antibiotics used in early treatment of wound infection. Initial application of Medifil® II collagen particles on 9/5/2020. Frequency of dressing change was every 48 hours. Collagen particles covered with non-woven gauze dressing.

Clinical Outcomes

Wound fully healed post partial amputation 10/23/2020.

Clinical Study References

- *Dr. G. Marunraj, M.B., B.S., M.S., M.Ch., Vascular Surgeon. Kanchipuram, India.*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate – Chennai India*

Case Study #10

Diabetic Foot Ulcer – Right Plantar Hard-to-Heal Wound

Patient History

82-year-old with uncontrolled diabetes (type II) presented with a severe infection to the right plantar aspect of foot during the covid-19 pandemic. Dr. Marunraj thought partial amputation might be needed however, after Medifil® II collagen particles Skin Temp® II collagen sheets used; the wound began to move toward healing trajectory.

Application of Collagen Product(s)

Oral antibiotics and antimicrobial dressing used in early treatment of wound infection. Initial application of Medifil® II collagen particles on 12/22/2019. Skin Temp® II collagen sheets later started with notable granulation and to manage exudate levels. Frequency of dressing change was every 48 hours and later frequency of change to every three days. Collagen dressings covered with non-woven gauze dressing.

Clinical Outcomes

Wound fully healed 4/1/2020.

Clinical Study References

- *Dr. G. Marunraj, M.B., B.S., M.S., M.Ch., Vascular Surgeon. Kanchipuram, India.*
- *Selvam Watts, Human BioSciences, Inc. National Sales Manager and Clinical Studies Associate – Chennai India*