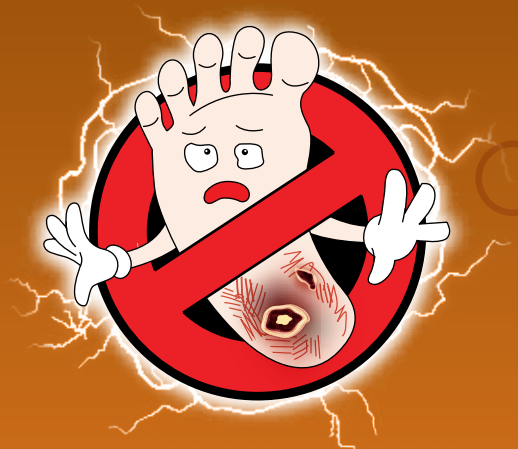
NOURISH TO FLOURISH: EPIGRAIN PROTEIN - ELEVATING NUTRITION, ACCELERATING HEALING!

Dr Mohamad Helmi, L Azura, Wound Unit Hospital Ampang,
Department of Orthopedic, Hospital Ampang



WOUNDBUSTERS
THE LEGACY

D-FOOT INTERNATIONAL, APADLP &
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Introduction

Chronic or hard-to-heal wounds are currently in the rise. These types of wound primarily happens due to the circumstances where the wound bed is not favourable due to chronic long standing infection which are left untreated or if the patient is systemically affected causing the healing of wound become stunted.

When assessing and analyzing the cause of a stalled wound heal process, there are some modifiable and non-modifiable co factors that influence the trajectory of wound healing, nutrition is one of it.

A patient who is malnourished, can be identify as those who have imbalance of macronutrient, micronutrient and immunonutrient. Protein, which belongs to the group of macronutrient is required in the process of wound healing. In our local dietary intake, protein only comprises around 15-20% from the total intake. This figure is not enough as when there is wound, your body will require as high as 250% intake of protein. These abundant of proteins are required during third stage of wound healing for the process of angiogenesis, proliferation of fibroblasts, production of collagen as well as increasing the connective tissue formation.

Micronutrient on the other hand, plays a pivotal role in reducing inflammation, enhanced collagen synthesis and promote antioxidant process. Without micronutrient such as arginine and glutamine, wound will stuck as second phase of healing, making it a hard-to-heal wounds. Whereas when there is deficiency in immunonutrients such as Vitamin A and Vitamin D, there will be reduction in B and T cell function which are required in inflammatory phase of healing and reduction in Vitamin C will leads to depleting of collagen synthesis in proliferative and remodelling phase.

Due to this issue of depletion in desired nutritional intake, wound healing can stuck in the chronic state for years and one way of correcting this issue is by giving the right substituents. Hence, Epigran is the answer.

Epigran is a pea-powdered milk protein equipped with oat, Oryza's bird nest, Arginine, Glutamine, Leucine, Vitamin A, C, E, Zinc, Copper, Selenium and Fibruline. These are all the essential nutrients required for wound healing. With only once a day intake, the desired outcome can be seen in an instance.

Here are some of the clinical cases of patients who get the benefits from drinking Epigran, which resulting faster wound contraction, reduction in infective blood parameters and maintaining good sugar control together with same standard of care for each wounds. These are all hard-to-heal wounds, mainly diabetic complication related wounds that previously showed no advancement with standard of care given from local health clinic.

Methodology

Cases with hard-to-heal wounds were selected as subject of the study. These patients had wounds of various sizes, etiology, location and characteristics, whom initially already received standard of care at local health clinic but had no improvement. Prior to starting of Epigran, blood investigation was taken (Full blood count, Renal profile, Liver function test, HBA1c, Fasting blood glucose, Fasting lipid profile, Erythrocyte sedimentation rate, C-reactive protein, serum electrolytes). Patient was advised to take 1 sachet of Epigran in a day and trials given for total of 1 month. Wound were measured at day 1, day 14 and day 30 after consuming Epigran. After completion of 4 weeks, repeated blood investigation was done and recorded.

Results

- **Case A**

Mr A, a 47-years-old man, underlying diabetes, hypertension, dyslipidemia, ischemic heart disease and chronic kidney disease, presented with history of left diabetic foot ulcer since 2021 whereby dressing of wound was done daily using super oxidised solution. Currently complaints of recurring, non-healing left foot ulcer, swollen foot, fever and was partially treated with antibiotic. Diagnosis of necrotising fasciitis was made by Orthopedic team and subjected for surgery. Latest wound pictures are as in the table.

- **Case B**

Mrs B, a 52-years-old lady, underlying diabetes on oral hypoglycemic agent and bronchial asthma. Complaint of swollen right foot which initially noted to have blister over the plantar forefoot region which subsequently ruptured, forming a circumferential plantar foot wound. Seek medical attention and was partially treated. Her wound worsened over time developing abscess. Wound debridement was done and pictures of the wound are as in the table.

- **Case C**

Mrs C, 38-years-old lady, underlying Systemic Lupus Erythematous, vasculitic ulcer, antilupus antiphospholipid syndrome, hypertension and history of left deep vein thrombosis, presented with chronic hard-to-heal ulcer over left shin for 6 years duration. Despite on multiple treatment, there was no wound contractility and no epithelial tissue advancement. Wound was treated with standard care of wound management and started on Epigran. Initial picture of wound is as follows.

Legend	Case A	Case B	Case C
Pictures prior to starting Epigran			
Wound size	10cm width x 11cm length	4cm width x 2cm length	6cm width x 5cm length
2 weeks after on Epigran			
Wound size	6cm width x 6cm length	0.5cm width x 0.5cm length	5cm width x 3cm length
4 weeks after on Epigran			
Wound size	5.5cm width x 5.9cm length	0.5cm width x 0.3cm length	4.8cm width x 2.5cm length
Percentage of wound size reduction in 4 weeks	50%	95%	44%

Blood Parameters

Purple highlight : abnormal high value
Blue highlight : abnormal low value
Yellow highlight : new value (reducing in trend)

	Case A		Case B		Case C	
	Pre	Post	Pre	Post	Pre	Post
WBC (4-10)	9.5	7.2	7.4	7.0	8.9	6.2
Neutrophils count %	49	30	50	55	74	69
Lymphocytes count %	37	40	42	40	17	20
Total Protein (66-83)	87	77	77	80	72	77
Albumin (35-52)	40	50	39	47	39	48
CRP (< 4)	4.6	3.7	0.9	0.1	12.2	8.4
ESR (0-20)	98	50	43	14	60	50
Fasting glucose (3.9-6)	6.6	6	6.9	6.0	4.9	5.4
Total Cholesterol (0-5.2)	6.6	5.8	4	3.8	5.3	5.2
LDL (< 1.8)	1.53	1.5	2.06	1.8	2.66	2.04
HDL (>1.55)	0.92	1.00	1.4	1.5	1.99	1.84

Other Parameters

	Case A		Case B		Case C	
	Pre	Post	Pre	Post	Pre	Post
Appetite status	N	N	N	N	N	N
New wound formation	No	No	No	No	No	No

Conclusion

In conclusion, Epigran has proven its remarkable ability to reduce infective parameters, restore balance to essential biochemical markers, and enhance overall nutritional value. This transformative supplement embodies the concept of "nourish to flourish," effectively elevating nutrition and accelerating healing for a healthier, more vibrant life.

Discussion

Nutrients like protein, arginine, and glutamine are vital for swift wound healing and tissue repair, expediting recovery. Proteins rebuild tissues, arginine boosts immunity and blood flow, while glutamine aids cell growth. "Nourish to Flourish" encapsulates the essence of elevating nutrition to accelerate healing, promoting a faster, more effective recovery. Speedy wound healing is crucial to prevent infections, minimize scarring, and restore normalcy swiftly, enhancing overall well-being. Swift recovery not only reduces pain and discomfort but also ensures a quicker return to optimal health and functionality, underscoring the necessity of expedited healing.

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