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HèliosMed Onlus

International Health Cooperation
Italy

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wound care management
vascular disease

cutaneous microvascular research
of the vascular disease by non invasive
diagnostic methods

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Home Wound Care: a new natural device for the treatment of advanced ulcers in the diabetic foot



WHO
Diabetic statics

- 347 million people worldwide have diabetes

- More than 80% of people with diabetes live in low- and middle-income countries

- WHO projects that diabetes deaths will double between 2005 and 2030

WHO Diabetic wounds statics

The effects of diabetes mellitus include long–term damage, dysfunction and failure of various organs (WHO 1999)



Regular inspection and good care of the foot can prevent amputations

Comprehensive foot programs can reduce amputation rates by 45-85%

Diabetic Wounds

- **best medical care:**
  glicemic and dislipidemic values control
- **revascularization it possible**
  open ⟷ endovascular
- **wound care**

Wound Bed Preparation: debridement

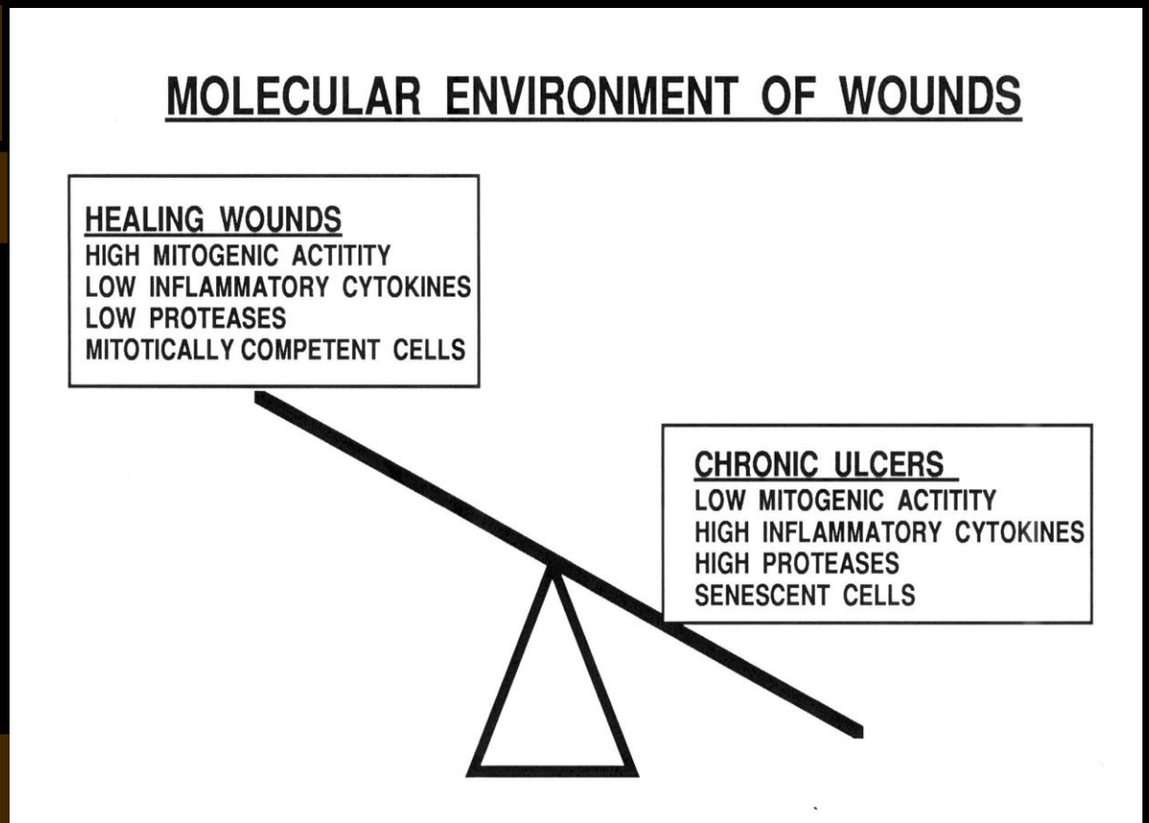
dressing in damp environment

autolytic	Hydrogel, Film, Hydrocolloid
osmotic	TenderWet
autolityc/osmotic	Alginate, idrofibre

Chemical

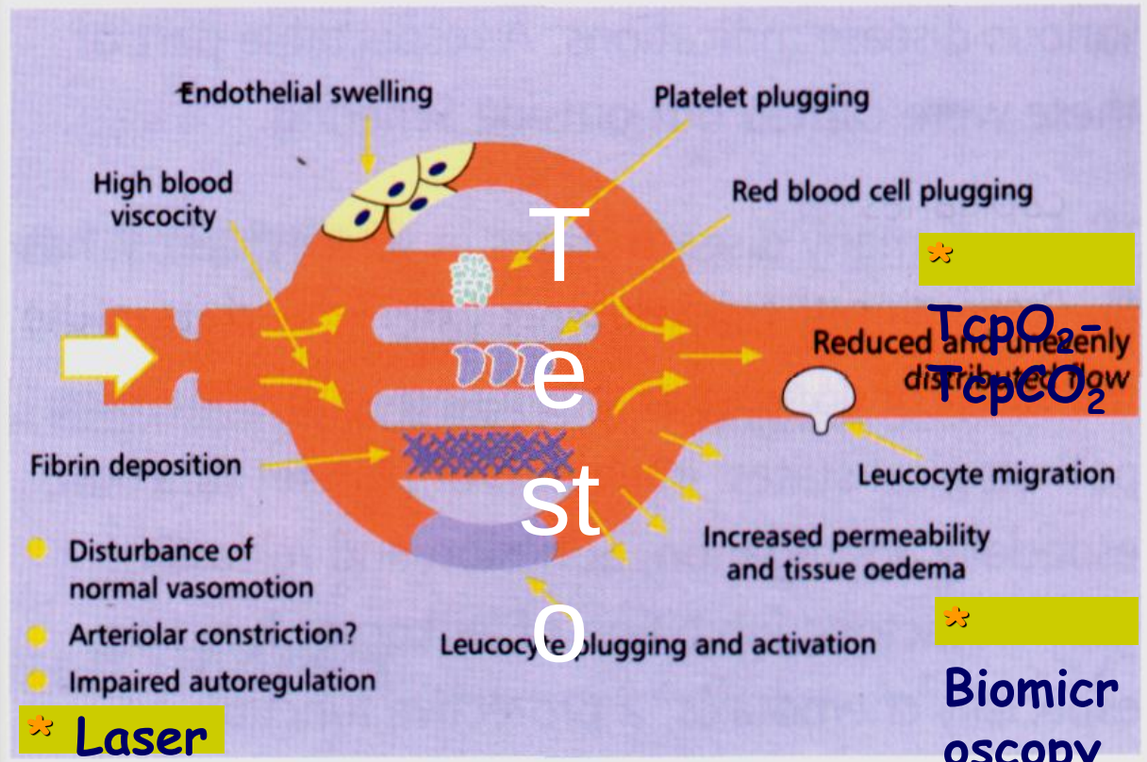
TOA
Topical Ozonated Autohemotheraphy

Surgical	Mechanical, Versajet
Enzymatic	Collagenase, fibrinolytic
Biological	Larvae of Lucilia Sericata



Background

The diabetic wound is burdened by severe impairment of cutaneous microcirculation and high susceptibility to infection



Test

Laser Doppler

$TcpO_2$ - $TcpCO_2$

Biomicroscopy

Purpose

to select and to develop a treatment
preventing / treating infections
stimulating tissue repair
“Hyperoil”
(an extract of *Hypericum perforatum* and *Azadirachta indica*)

What's Hyperoil

treatment of vascular leg wounds

Hyperoil is a mixture of



Hypericum

(Hypericum perforatum)

flowers extract



and

Nimh oil

(Azadirachta indica)

Nimh oil has shown cicatrizing, bacteriostatic, anti-inflammatory properties

The anti-inflammatory effects of Hypericum perforatum extracts were recently demonstrated, thus, providing the rationale ***for using these extracts in lower legs wounds***, together with nimh oil extract.

Why don't use Hyperoil for diabetic ulcers, too?

Case Report

A man aged 72, with type 2 diabetes from 40years, came to our angiological centre on 6 April 2011 with diabetic feet ulcers in both legs.



Because of transportation difficulties of the patient, the relatives and the medical staff ***agreed to begin the use of*** Holoil gel to treat the left foot ulcer on 5 March 2012 and Holoil-garze for the right foot ulcer on 13 March 2012, ***instead*** of other surgical skin graft reimplantations.

Iabichella ML. *BMJ Case Reports* 2013. doi:10.1136/bcr-2012-007299

Case Report

The use of an extract of *Hypericum perforatum* and *Azadirachta indica* in advanced diabetic foot: an unexpected outcome





Iabichella ML. *BMJ Case Reports* 2013. doi:10.1136/bcr-2012-007299



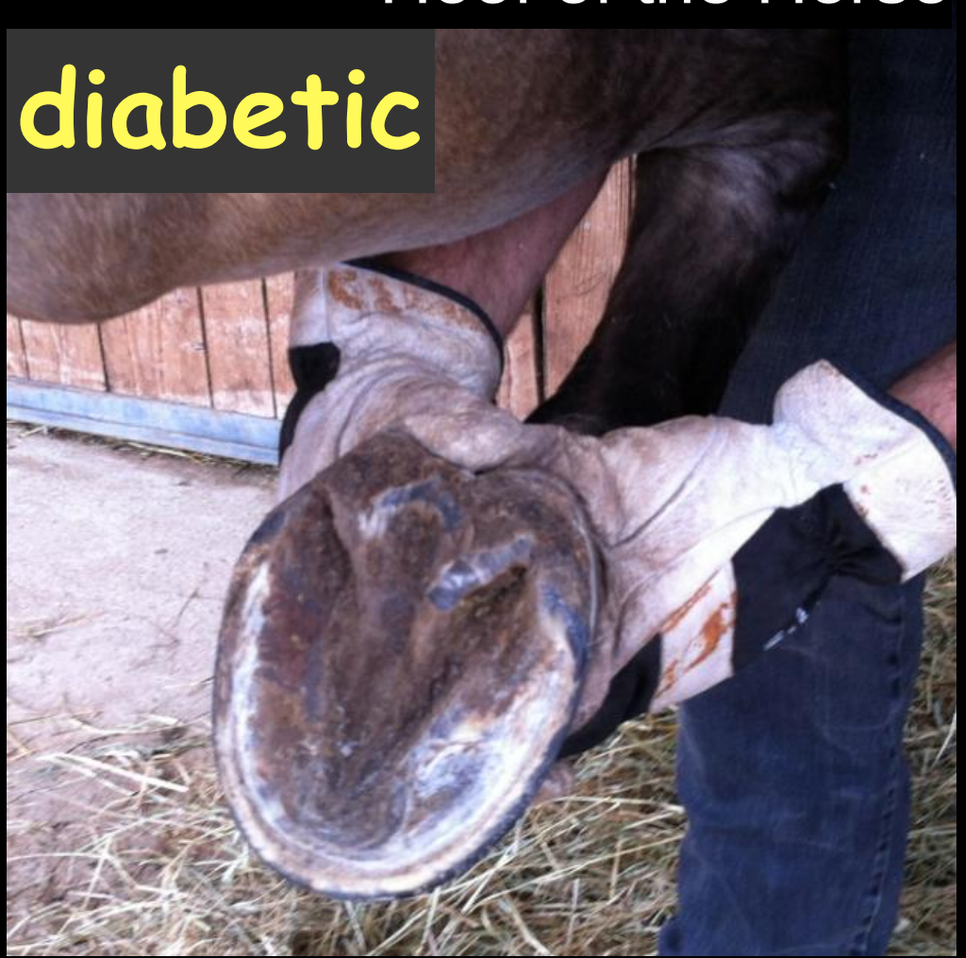
wound healing wound healed



Hoof of the Horse

What's new?

Effective Therapy
Low Cost



It's New

Home Care
Diabetic Foot Ulcer

Sample

16 patients *with advanced diabetic foot ulcers*

M/F = 9 / 7; age range: 46 - 78 years
smokers / non smokers: 7 pts / 9 pts

comorbilities: Hypertension 16 pts
PAOD 11 pts
Ischemic Heart Failure 9 pts
IRC 5 pts; BPCO 3 pts; HCV 1 pt

HbAc1 range: 9%-14%

ulceration area: 10-420 cmq
bone exposition: 14 out of 16

Flowchart Clinical Pratice before Wounds Treatment

Clinical
best medical treatment

Echo Color Doppler
if normal
if PAOD

TcpO2-CO2	Laser Doppler	Biomicroscopy
O2 < 30 mmHg CO2 > 42 mmHg	PU reduced	capillary density (C stage) unit x mmq

ILOPROST

Responder

Non Responder

Wound Care

Angiography and Revascolarization

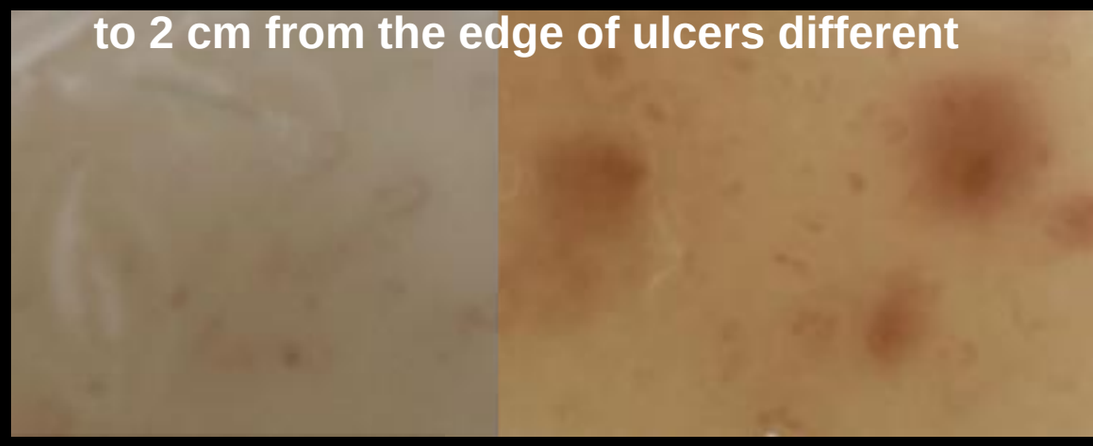
Diagnostic Methods

All pts performed:
- EcoColor Doppler
- Capillaroscopy
- $TCpO_2$-$TCpCO_2$

Angiography:
on pts no-responding to prostanoid (2 pts)

Laser Doppler Fluximetry:
on not-amputed pts (6 pts)







Lesion Genesis



neuropathic injury without PAOD 5 pts
previous minor amputation 2 pts



neuropathic injury PAOD 4 pts
previous minor amputation 3 pts



distal ischemic injury PAOD 7 pts
previous minor amputation 5 pts

Lesion’s Treatment

All patients were treated with Hyperoil



HOLOI SYSTEM



A UNIQUE PRODUCT UNDER TWO BRANDS FOR DIFFERENT MARKETS

only Hyperoil Treatment (5 pts)

Prostanoid (11 pts)

Angiography and Revascularization (2 pts)

Surgical Debridement (10 pts)

Wound’s Treatment

Clean up with Ringer’s solution



Hyperoil gel application



Non-adhesive gauze



Bendage



Dressing change every two days

Home treatment

VAS pain evaluation

Results

All patients completed the **Hyperoil treatment** and wounds recovered







Time to recovery: 2-10 months

Local infections = 1

New wounds = 0

Gangrene progressions = 0



VAS pain improvement after 1 week in all patients

Improved glycaemic control in all patients

Conclusions



Hyperoil seems to be an effective and cheap treatment

for home management of diabetic foot ulcers





Controlled studies are needed to confirm these preliminary observations

Iabichella ML. J Diabetes Metab 2015, 6:2



Thank You