

## Class IV Laser Therapy on a Non Healing Grade 2 Pressure Ulcer

Nine years old girl H.A. 4635145K. Grade 2 Pressure ulcer on Right heel from a plaster cast to her leg following orthopaedic tendon surgery earlier in the summer. Due to her underlying conditions, the wound is taking a very long time to heal. She is due further hip surgery, but can not have the surgery until the pressure ulcer is completely healed. It is taking a very slow time with little progression from week to week, and the family are getting a little down.

On May 2013 the wound was around 4x3 cm.

Class IV Therapeutic Laser K-Cube 4. Protocol: Leg Wound 20cm<sup>2</sup>, power reduced to 4Watts when in Continuous Wave 800, 905 and 970nm mode, 2 sessions per week.

Other treatments: debridement, bandaging and manuka honey.

24<sup>th</sup> October 2013, first LLLT session



1x1.5 cm

5<sup>th</sup> November



12<sup>th</sup> November



0.7 x 1.3 cm. Due to some hypergranulation, on the 12<sup>th</sup> November the Tissue Viability Nurse and the mother of the patient decided to interrupt the application of the honey and have Laser Therapy as sole treatment.

19<sup>th</sup> November



0.5 x 0.7 cm

26<sup>th</sup> November



0.5 x 0.6 cm



5<sup>th</sup> December



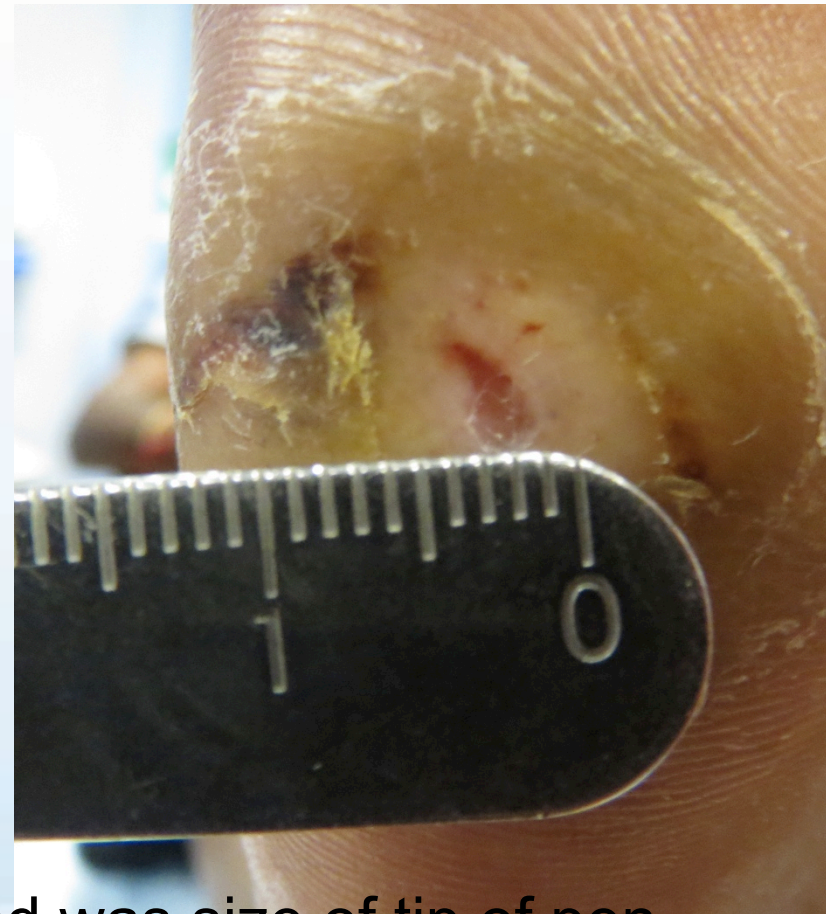
The wound is completely epithelialized. The patient is dismissed from tissue viability care.

# Neuro-vascular with a Pressure wound

- Wound 18 month old. Healed for a couple of weeks, then came back with infection. This happened twice in 18 months, last time around beginning of August.
- 14th/15th of August it got swollen and filled with pus, met Helen on the same day, debridement + 2 weeks of antibiotics.
- 6 month ago had bespoke shoes. January 2013 had vascular surgery on R leg (where the ulcer is). Ulcer was bilateral but R leg has no vascular issues therefore healed in 2 months.
- Base (actual ulcer): 1.0x0.9, Pus tracking on the side was 2.2x1.2
- Dressing: Biatain



1 Laser treatment (22/08), following week wound was healed (29/08, pictures below)



4<sup>th</sup> of September wound was size of tip of pen

## K-Laser Therapy on a Non Healing operation site



Fifty-five years old, Caucasian male. In April 2013 a fibrous, non-cancerous lump was surgically removed from plantar mid right 1<sup>st</sup> toe.

Following operation the patient had not received podiatry care and was applying Hydrocortisone cream 0.5% and simple dressing to the wound. The patient was taking Tramadol and Paracetamol twice daily up to November 2013. The wound was non-healing and the patient was referred for K-Laser Therapy, which was the sole treatment with dressings from the 21<sup>st</sup> of November.

The patient was treated with K-Laser for 14 sessions from the 21<sup>st</sup> November to 21<sup>st</sup> January 2014.

The Class IV laser therapeutic K-Cube 4 protocol: Leg Wound 20cm<sup>2</sup>, Wavelength 660, 800, 905 and 970nm and 10 frequency and power differential phases.

Other treatments: none.

21<sup>st</sup> November 2013, first LLLT session and was completely healed by 16<sup>th</sup> of January 2014 within 8 weeks, after 8 months of a non-healing wound.







17<sup>th</sup> December 2013



3<sup>rd</sup> January 2013



16<sup>th</sup> January 2013

## Amputation of left hallux and second toe on the left side with angioplasty

- Unclear when amputation happened, first seen on 8<sup>th</sup> April 2013.
- Over 80 yrs. Diabetes 2
- HBA1C 10.5%
- Wound was healing but in second half of April stopped progressing.
- Swab results: heavy mixed growth including coliforms

### Wound treatments:

- Maggots
- Honey
- Alginate and some TTA
- Silver dressing
- Collagen granules
- New post-op DH walker shoes
- 1 LASER Tx per week, 4 sessions not attended during July



7<sup>th</sup> June 9 x 5cm



4<sup>th</sup> September 4 x 1.5cm



# ONE YEAR OLD CHRONIC ULCER.



- Mastectomy in 1973
- Radiotherapy to the area.
- Early 2013: the wound has opened under her axilla as there is a lot of scar tissue.
- awaiting right knee replacement and this is on hold until the wound heals
- Unresponsive to previous treatments



# ONE YEAR OLD CHRONIC ULCER.



K-Laser treatment  
started on the  
18/12/13

“Edema and  
Congestion” setting  
around the wound +  
“Wound 20cm<sup>2</sup>” on  
the ulcer

K-Laser used as sole  
therapy.

Picture taken on the 24<sup>th</sup> December 2013

# ONE YEAR OLD CHRONIC ULCER.



- 14<sup>th</sup> January 2014:  
wound healed, patient  
dismissed.

Seven K-Laser treatments  
from the 18/12/13 to the  
14/01/14.

Update: 17<sup>th</sup> January skin  
is intact, patient is ready  
for surgery.



## Pressure and Neuro-ischaemic wound

- Patient 66
- Right foot intact, callus overlying 3rd mtpj and medial hallux, recurrent.
- Left foot 3rd mtpj wound used as a control

Wound treatment:

sfc plantar pad and sterile gauze

Once Weekly Laser Tx  
20cm<sup>2</sup>

15<sup>th</sup> August – 29<sup>th</sup> August



3 Laser sessions

# Pressure wound Left foot medial 1st mtpj Ulcer

- 86 years old
- Neuropathic
- Diabetes type II, HBA1C missing
- Wound on left hallux base side plantar aspect below where the big toe has been amputated

## Wound treatments:

- Debridment
- Collagen granules
- Clopidogrel 75mg tablets
- Ezetimibe
- LLLT: Twice Weekly  
Wound protocol +  
Decongestion protocol



30<sup>th</sup> July 2013  
3 x 3cm



29<sup>th</sup> August  
2.2 x 2cm





# Pressure wound, neuro-vascular patient

- 47 years old
- Diabetes Type 1
- HBA1C: 11.04%
- Overweight & Active
- Had current wound since June 2012
- Amputated Toes
- Due to walking regularly on the foot, and position of the pressure sore on the ball of the foot, difficult to alleviate the pressure to allow it to heal quicker

Current treatments:

Off loading

dressed with NeuSkin,  
collagen dressing &  
antibiotics

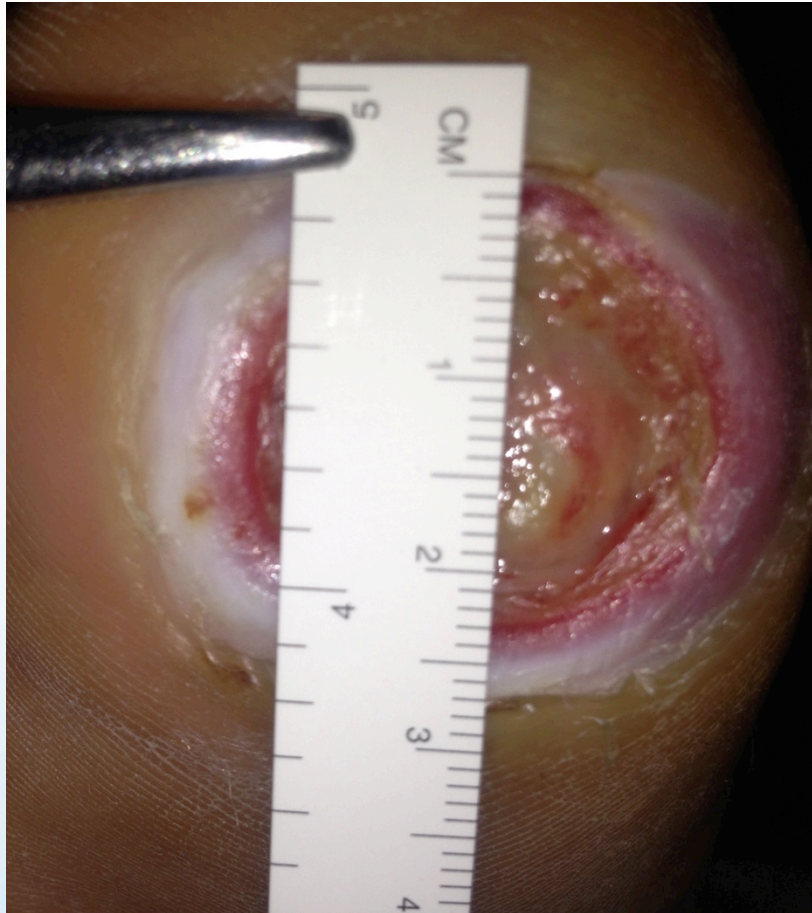
LLLT: Wound +

Oedema/

Decongestion protocol

Case One – D.B.

17<sup>th</sup> June 2013  
2,2 x 2,5cm



6<sup>th</sup> September 2013  
1 x 1cm



# WOUND ON ELDERLY PATIENT TREATED WITH A K-LASER 12W

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Hertfordshire Chiropractic Clinic, UK**

02 October 2012 - 1 week after the initial injury.



09 October 2012 - After 2 laser sessions one week apart.



20 October 2012 - After 3 sessions with the K-Laser.

“The quality of the 'mend' is excellent and the patient is very happy.”

Duncan Stronach

