# WIRELESS MICROCURRENT STIMULATION

## PIONEERING PHILIPPINE EXPERIENCE

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PLASTIC AND RECONSTRUCTIVE SURGERY

# INTRODUCTION

- Human Anatomy is affected by underlying physiologic processes

# INTRODUCTION

- Electric potential difference between the epidermis and underlying dermis and subcutaneous tissues
- “Skin battery”

Kambouris et. Al. 2014
Poltawski and Watson 2009
Mercola and Kirsch 1995

# WOUND PHYSIOLOGY

- Significant changes in the edges of the wound and the periwound area 3mm away

Kloth 2005

# WMCS


Wetling Product sheet

# ADVANTAGES OF WMCS

- Can be used as adjunctive treatment, non-exclusive modality
- No touch technique – comfort, pain, pediatric friendly
- Wide range of applicability – burns, chronic wounds, others
- Relative portability
- Ease of use

# DISADVANTAGES OF WMCS

- Electric power dependence

# PIONEERING PHILIPPINE EXPERIENCE WITH WMCS

- TERTIARY HOSPITAL BURN UNIT

# TERTIARY HOSPITAL BURN UNIT

- 6 patients with superficial partial thickness to deep partial thickness burns
- Dressed with Silver Sulfadiazine on NSS-moistened sterile gauze
- Adjunctive treatment with Wireless MicroCurrent Stimulation x 1 hour daily on burn site

# AD 28M

ELECTRICAL BURN, 27% TBSA, FACE, UPPER EXTREMITY, RIGHT, LOWER EXTREMITIES

# DAY1 OF WMCS RIGHT ARM(3RD POST BURN DAY)

# DAY1 OF WMCS RIGHT ARM

# DAY 3 RIGHT ARM

# DAY 5 OF WMCS RIGHT ARM

# DAY 10 RIGHT ARM OF WMCS

# DAY 10 RIGHT ARM OF WMCS

# 10 DAY COMPARATIVE PICTURES

# DAY 1 OF WMCS RIGHT LEG & THIGH

# DAY 3 RIGHT LEG & THIGH OF WMCI

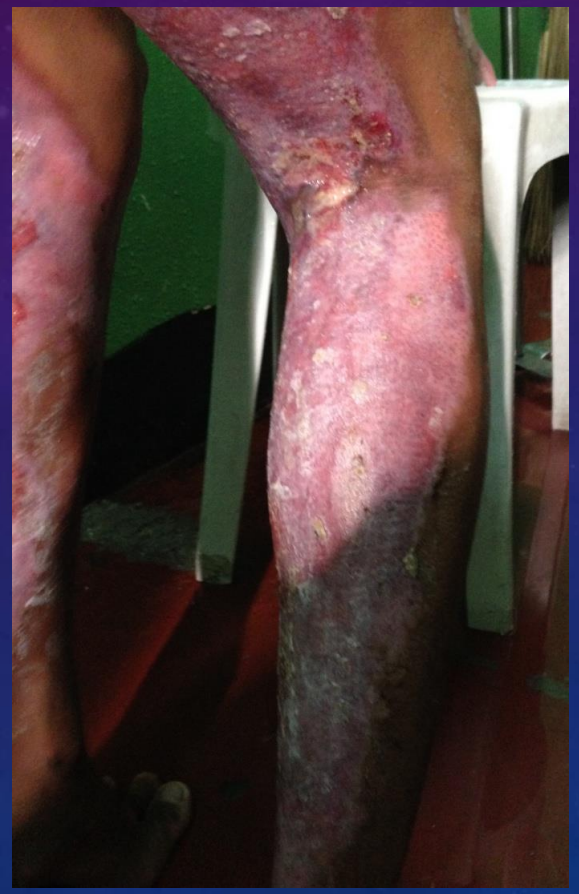
# DAY 5 RIGHT LEG & THIGH OF WMCS

# DAY 5 RIGHT THIGH OF WMCS

# DAY 5 OF WMCS RIGHT THIGH

# DAY 9 OF WMCS RIGHT LEG

# DAY 13 OF WMCS RIGHT LEG



# DAY 13 OF WMCS RIGHT THIGH

# DAY 13 RIGHT THIGH OF WMCS

# BL 44M

SCALD BURN, 9% TBSA, DPT TO FT BURN, RIGHT; SPT-DPT, LEFT

# DAY 1 WMCS

# DAY 4 WMCS

# Day 6 WMCS

# Day 6 WMCS

# DG 32M

ELECTRICAL BURN, 30% TBSA, UPPER EXTREMITY, RIGHT, BACK, TRUNK

# Day 1 WMCS

# Day 4 WMCS

# Day 6 WMCS

# GR 27M

## FLAME BURN 26.5% TBSA SPT-DPT POSTERIOR NECK, BACK, BILATERAL UPPER AND LOWER EXTREMITY

# DAY 1 WMCS

# 6 DAYS POST WMCS

# COMPARATIVE PICTURES

# JD 2M

SCALD BURN 33% TBSA SPT-DPT FACE, ANTERIOR TRUNK, POSTERIOR TRUNK, BILATERAL UPPER EXTREMITIES, LEFT GLUTEAL AREA

# 1 DAY POST WMCS

# 7 DAYS POST WMCS

# 10 DAYS POST WMCS

# 14 DAYS POST WMCS

# RL 7F

30% TBSA DPT TO FULL THICKNESS FLAME BURN TO ANTERIOR THORACOABDOMINAL AREA, MEDIAL RIGHT ARM, ANTEROLATERAL RIGHT THIGH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- Multiple debridement, tangential excision done


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- Split Thickness Skin grafting was done


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# 5 DAYS POST SKIN GRAFTING

**2 WEEKS APART**
**WMCS 3X/WK**

**2 WEEKS APART**
**WMCS 3X/WK**

# SUMMARY

- Pediatric age group - less frequent dressing changes
  - pain-free adjunct to standard of care
  - relative ease of use
  - portability
  - light offers some sort of distraction

# LOCAL ADVANTAGE

- Less expense from dressing changes
- Less pain, more tolerable
- Less frequent dressing changes
- Faster healing

# DISCLOSURE

- Not affiliated with nor have any stake in the company of Wetling or its distributors
- Did not receive any financial support for treatment of these cases