Etherea's MX Astanza Laser

Dallas, October 2018

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prepared and reviewed by Lutécia Costa, OCT 2018

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LEADERSHIP

#1 LASER PLATFORM IN THE WORLD'S 2ND LARGEST AESTHETIC MARKET.

MORE SYSTEMS
SOLD THAN ALL OTHERS COMBINED*

750,000
TREATMENTS TO DATE AND GROWING

93%+
OVERALL USER'S SATISFACTION

SOLD IN ALL MAJOR MARKETS **AROUND THE WORLD**

VERSATILITY: UP TO **7** DIFFERENT TECHNOLOGIES

70+
TRATAMENT INDICATIONS AVAILABLE

ETHEREA®: Key Product Milestones

CONTINUOUS IMPROVEMENT OVER THE PAST 10 YEARS

MILESTONES

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
			250 units sold		500 units sold		750 units sold		1,000+

October 2009; ETHEREA has been released to the market with IPL-Sq and intenseIR light-based handpieces.

October 2010; fractional LASER handpieces also released to the market, adding new features to ETHEREA – LongPulse (Nd:YAG @1,064 nm), ProDeep (Nd:YAP @1,340-nm) and DualMode (Er:YAG @2,940-nm);

August 2011; I ETHEREA Users Meeting take place; ~100 attendees;

2012: ETHEREA gets CE and FDA clearance, which adds yet more confidence to the ETHEREA technology;

August 2013; II ETHEREA Users Meetings take place; ~150 attendees;

August 2015; III ETHEREA Users Meetings take place; ~200 attendees;

April 2014; ACROMA-QS (dual-wavelength Nd:YAG @1,064-nm and KTP @532-nm) released to the market, adding yet more versatility to the ETHEREA platform

September 2016; ETHEREA-MX released to the market: new features, new handpieces;

August 2017; IV ETHEREA Users Meetings take place; ~250 attendees;

ETHEREA®: Research and Clinical Development

APPROVED BY THE BEST MEDICAL INSTITUTIONS OF BRAZIL

support to clinical research and development in PUC-Campinas (SP), UNICAMP (SP), HCFMUSP Ribeirão Preto (SP), FAMERP (SP), HCFMUSP São Paulo (SP), Santa Casa de São Paulo Einstein (SP), Santa Casa de Porto Alegre (RS), Lauro de Souza Lima Institute (SP), FMJ Hospital (SP), HRAN Brasília (DF), Hospital das Clinicas de Porto Alegre (RS), Santa Casa de Misericórdia of Rio de Janeiro (RJ), and others;

ETHEREA®: Research and Clinical Development

SCIENTIFIC PAPERS AND PUBLICATIONS

Original Articles

Laser toning e *drug delivery*: estudo-piloto utilizando laser *Q-switched* Nd:YAG 1064nm

Laser toning and drug delivery: a pilot study using laser Q-switched laser 1064nm

Authors:
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DOI: http://dx.doi.org/10.5935/scd1984-8773.201682727

ABSTRACT

Introduction: Laser toning technique is performed with the Q-switched Nd:YAG laser 1064 nm, aiming at stimulating neocollagenesis. The technique can also be associated with the application of suitable medicines for drug delivery, increasing its potential for skin permeation.

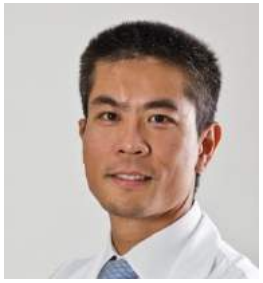
Objective: To evaluate the results of laser toning Q-switched Nd:YAG laser 1064 nm associated with drug delivery through a pilot study.

Methods: Four patients underwent four laser sessions with application of a formula for drug delivery or placebo, fortnightly.

Results: According to the photographic assessment, laser toning promoted improvement of

ETHEREA®: Key Opinion Leaders

USED AND APPROVED BY REFERRAL DOCTORS


Rodrigo Kikuchi, MD
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Eliandre Palermo, MD
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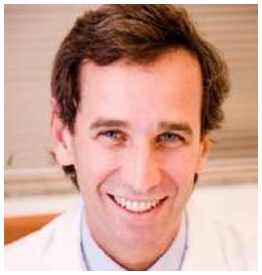
Nuno Osório, MD
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Ricardo Shiratsu, MD
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ETHEREA®: Versatility in Technology

ETHEREA®: Versatility in Treatments

+ 70 TREATMENT INDICATIONS AVAILABLE AND GROWING

IPL-Sq®	intenseIR®	ACROMA-QS®	LongPulse®	ProDeep®	GoSmooth®	DualMode ®
• hair removal • pigmented and vascular lesions • anti-aging and wrinkles • active acne.	• **skin tightening on face and body areas**	• LASER toning • tattoo removal • discrete pigmented and vascular lesions	• veins and vessels of the legs • hair removal in high phototypes • onychomycosis • LASER toning and thermal peeling for *flushing* ;	• Fractional non-ablative LASER • treatment of deep scars • stretch marks • melasma • hair therapy	• Fractional LASER for non-ablative FRACTIONAL RESURFACING • anti-aging and wrinkles • hair therapy	• Fractional ablative resurfacing • treatment of the intimate health of woman with LASER; • intimate rejuvenation • anti-aging and wrinkles • LASER peel for pigmentation on face, body and intimate region for woman

Handpieces

ETHEREA-MX® ACROMA-QS®

- 3, 5, 7 mm 1,064 nm
- 3.5 mm 532 nm
- 9/100 mtz/cm^2

INDICATIONS

- **removal of tattoos** with different colors and depths;
- **various pigmented lesions including**, post-inflammatory hyperpigmentation, ocher dermatites, hemosiderin deposition and keratoses;
- **removal of fine/light hair**
- **LASER *toning*** for all phototypes;
- the best therapeutic solution for **melasma**;

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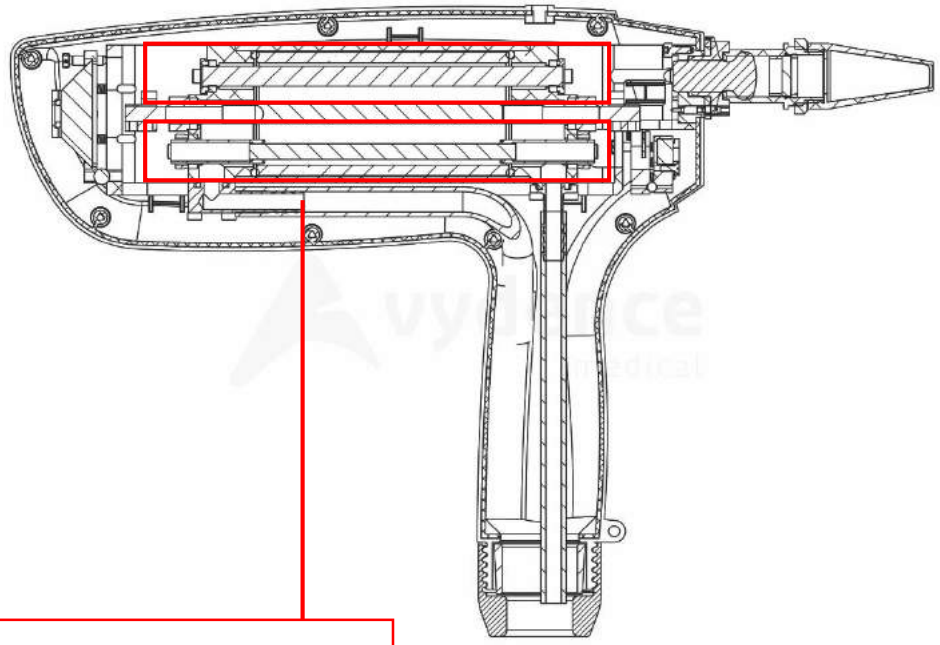
LASER Nd:YAG 1,064 nm

q-switched technology and photoacoustic effect



double rod design: LASER rod generator and LASER rod amplifier: higher energy per shot

- **Nd:YAG 1064nm and KTP 532nm for multifunctional** plataform;
- technology that seeks to add versatility and offer more treatments option;
- most LASERs use only **1 single rod for beam generation – less energy;**
- **ACROMA-QS®** 2 rods, for **generating and amplifying** beam energy;

ETHEREA-MX® ACROMA-QS®

interface parameterization and usability

PARAMETERIZATION

- **energy:** 600 to 1500 mJ;
- **pulse duration** amount of energy delivered in a given time (20 ns);
- **frequency:** repetition rate, between shots;
- **spot size:** indicates which spot is in use. Larger spots sizes perform lighter treatments.

ACROMA-QS®: Clinical Guide

LASER toning and rejuvenation

Use of 1,064 QS Nd:YAG LASER, with collimated beam, low fluency and large spots;

- pore reduction;
- comedones;
- oiliness;
- texture and tonus;
- fine wrinkles;

- Very popular in Asia;
- multiple sessions, maximum safety and no downtime;
- No restriction to the phototype or tanning condition;

ETHEREA-MX® ACROMA-QS®

preventive maintenance and special care

Parameters for Black Peel:
1064nm 7mm spot
600mj

- care when cleaning especially **after the black peel procedure**;
- there can be no dirt on the lens because **this can irreversibly damage the cavity**;

ETHEREA-MX® LASER GEMINI

combined treatments

ACROMA QS **New**

LASER GEMINI: combination of 2 wavelengths and identical half-actives, but with different pulse duration, for personalized effects;

Nd:YAG q-switched, 1,064 nm

for skin spots and melanosis skin whitening in general

photomechanical effect only

+

Nd: YAG short-pulsed, 1,064 nm

for *toning*, *flushing* reduction, pore closure

thermal effect only

- combination in the same treatment session;
- monthly or biweekly sessions;
- 6 to 8 treatment sessions for extended results;
- no *downtime*, restriction to phototype or tanning;

ETHEREA-MX® LASER GEMINI

Treatment Protocol

ACROMA QS **New**

LASER GEMINI: combination of 2 wavelengths in the same treatment session

Acroma QS Handpiece

Nd:YAG q-switched, 1,064 nm

Spot 7mm , 1200mj, 3- 4 passes, until light to moderate Erythema

+

LongPulse Handpiece

Nd: YAG short-pulsed, 1,064 nm

Dynamics Mode, Pulse 650 microsec

Tip 6mm, 10J/Cm2, 5.000 Pulses

Pacient feedback

Frequency – up to 10HZ according to paciente tolerance

ETHEREA-MX® LASER GEMINI

Courtesy Dr Valeria Campos

ACROMA QS **New**

Before

After

ETHEREA-MX® LASER GEMINI

Courtesy Dr Valeria Campos

ACROMA QS **New**

Before

After

ETHEREA-MX® LongPulse®

- Long pulse ND:Yag 1064nm
- Gold standard for Vascular Lessions
- 4 spots – for improved results in different targets
- Spots plug and play
- LongPulse DYNAMICS, for *thermal peeling*

- 2, 3, 6 and 9 mm

ETHEREA-MX® LongPulse®

- **Efficacy of LASER Comes from a perfect combination of the parameters:**
  - Spot size
  - energy/fluency
  - Pulse duration

INDICATIONS

- **vascular lesions** in lower limbs (deep) and neck/face (superficial);
- **epilation**, especially for higher phototypes (Fitzpatrick V-VI)
- LongPulse DYNAMICS, for *thermal peeling* – **rejuvenation** (in general) and **onychomycosis**;

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ETHEREA-MX® LongPulse®

technical features

wave-lenght	1,064 nm
spot size	2, 3, 6, 9 mm
maximum fluence	1,5 – 500 J/cm^2
pulse duration, LongPulse™	3 to 60 ms
pulse duration, Dynamics™	300 µs to 1 ms

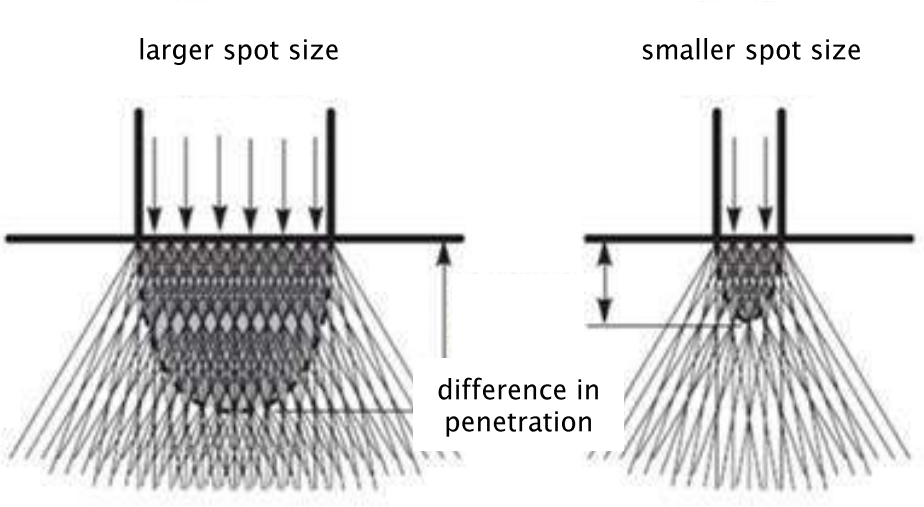
ETHEREA-MX® LongPulse®

parametrization of the treatment

QUESTION	ANSWER	ADJUSTMENT VARIABLE
WHAT IS THE TARGET, WHERE IS AND WHAT IS THE BARRIER TO BE TRANSPOSED BY THE LASER?	hemoglobin; HbO	wave-lenght
AT WHICH DEPTH?	very superficial, a few millimeters	wave-length; spot size
WHAT IS THE DIAMETER?	very thin; and 3 mm to 4 mm for reticular	pulse duration
WHAT IS THE ABSORPTION?	depends on the chosen wavel-ength	fluency

ETHEREA-MX® LongPulse®

parametrization of the treatment



SPOT SIZE	PENETRATION
1 mm	0.8 mm
3 mm	1.5 mm
7 mm	3 mm
10 mm	4 mm
12 mm	4.5 mm
18 mm	5 mm

- **larger spot sizes** are indicated for the treatment of deeper lesions in **vessels and telangiectases of the lower limbs**;
- **smaller spot size** are indicated for the treatment of superficial lesions, **especially those originating in face**;

ETHEREA-MX® LongPulse®

parametrization of the treatment

LARGER DIAMETER VESSELS	LONGER **PULSE DURATION**
SMALLER DIAMETER VESSELS	SHORTER **PULSE DURATION**

STRUCTURE	THERMAL RELAXING TIME
telangiectasias	10 ms at 20 ms
venulectasis	20 ms at 30 ms
reticular veins	30 ms at 60 ms

PULSE DURATION OR TIME OF EXPOSURE TO ENERGY IS DETERMINED IN RESPECT OF THE VESSEL DIAMETER

ETHEREA-MX® LongPulse®

parametrization of the treatment

longpulse

Superficial Telangiectasias < 0,5mm

2mm 10ms 225-275J/cm²
3mm 10-15ms 125-175J/cm²

Telangiectasias from 0,5mm to 1mm

3mm 10-15ms 125-175J/cm²
6mm 10-15ms 90-120J/cm²

ETHEREA-MX® LongPulse®

parametrization of the treatment

Venulectasis from 1 to 2mm

6mm 15-20ms 70-100J/cm^2

Reticular Veins from 2 to 3 mm

6mm 20-40ms 80-100J/cm^2

ETHEREA-MX® LongPulse®

clinical reference guide: vascular lesions

- **attention** to the phototype and tanned patients;
- remove creams and/or lotions before application;
- applications in areas with a lot of hair can epilate;
- observe clinical response and attention to the patient's pain;
- always initiate the tx by the reticularis before the telangiectasias;
- imperative the use of the epidermal cooler, SIBERIAN-FIT®;

ETHEREA-MX® LongPulse®

clinical reference guide: vascular lesions

- **post-procedure:** apply local topical corticosteroids;
- **interval:** monthly, for the same area;

Casebook and Results

vascular lesions

photo courtesy of: Luiz Marcelo Viarengo. Vascular Surgeon. Jundiaía, SP. Brazil.

Casebook and Results

vascular lesions

treatment of telangiectases of the lower limbs with 1,064 LongPulse; 1 tx sessions, with intervals of 30 days

photo courtesy of: Rodrigo Kikuchi. Vascular Surgeon. São Paulo-SP. Brazil.

Casebook and Results

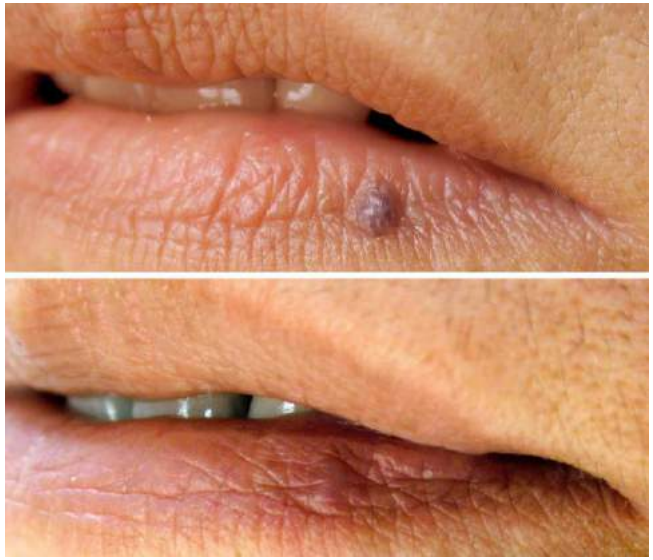
vascular lesions

treatment of telangiectases of the lower limbs with 1,064 LongPulse; 1 tx sessions, with intervals of 30 days

photo courtesy of: Rodrigo Kikuchi. Vascular Surgeon. São Paulo-SP. Brazil.

Casebook and Results

Vein Lakes: Courtesy Dr Rodrigo Kikuchi



Single treatment
Nd:YAG 1064nm

6mm
40ms
70J/cm^2

etherea^{MX}

6mm 30-40ms 50-70J/cm^2

Casebook and Results

Vein Lakes: Courtesy Dr Flavia Reginatto

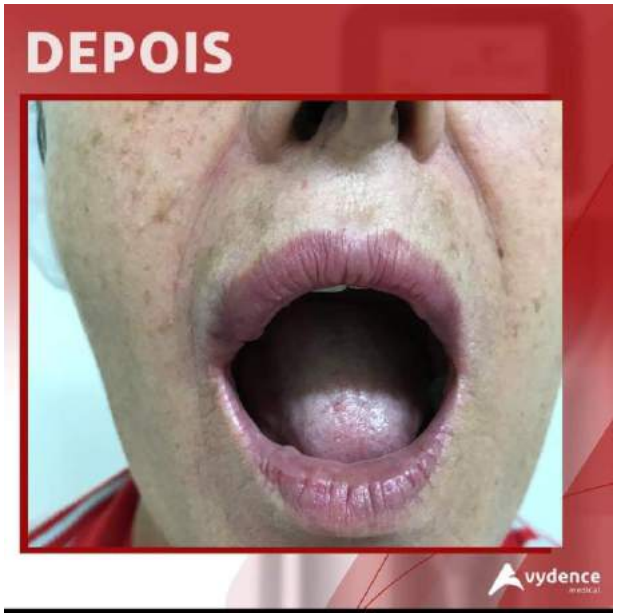
Single treatment

etherea MX

6mm 20ms 90J/cm²

Before

After



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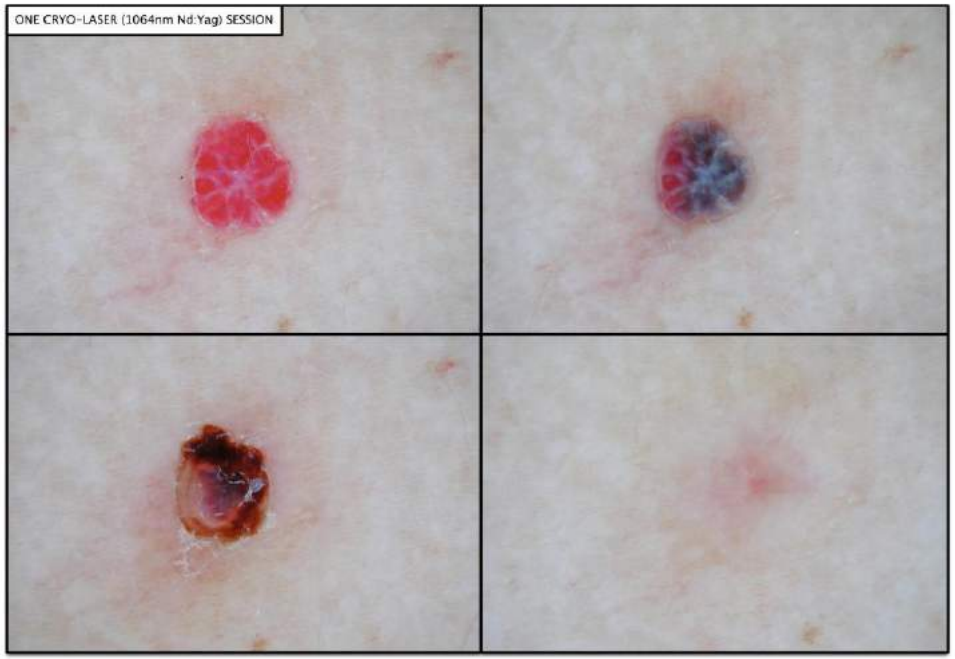
Casebook and Results

Cherry: Courtesy Dr Rodrigo Kikuchi



Single treatment
Nd:YAG 1064nm

2mm
10ms
250J/cm

etherea MX

2mm 10ms 250-300J/cm^2
3mm 10-15ms 175-225J/cm^2

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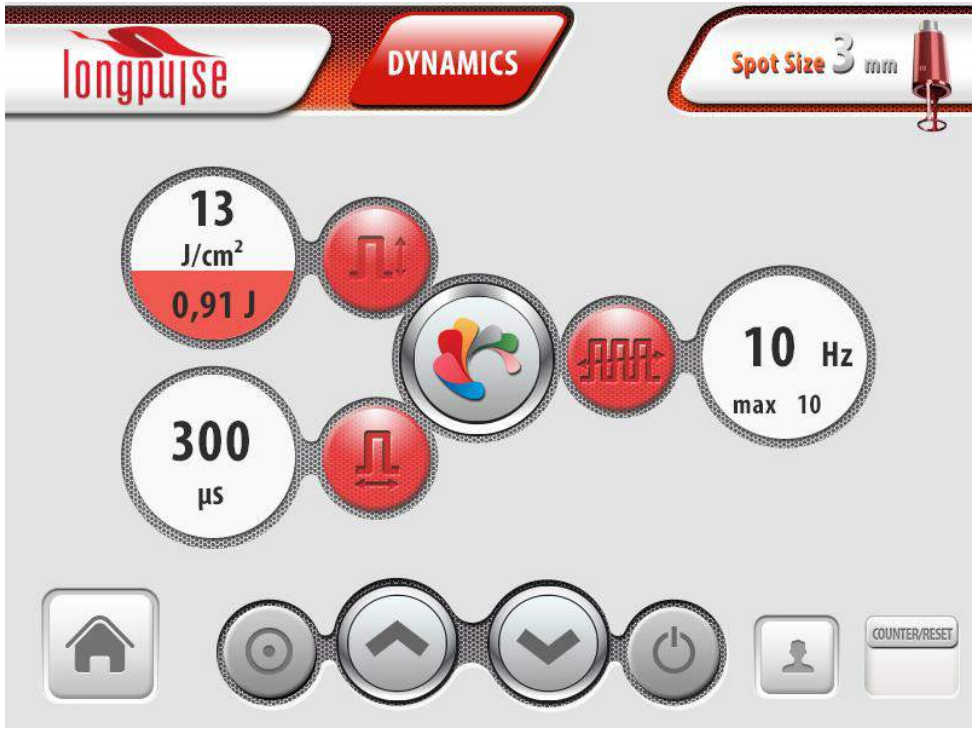
Casebook and Results

hair removal

VYDENCE Medical Training Center

ETHEREA-MX® LongPulse®

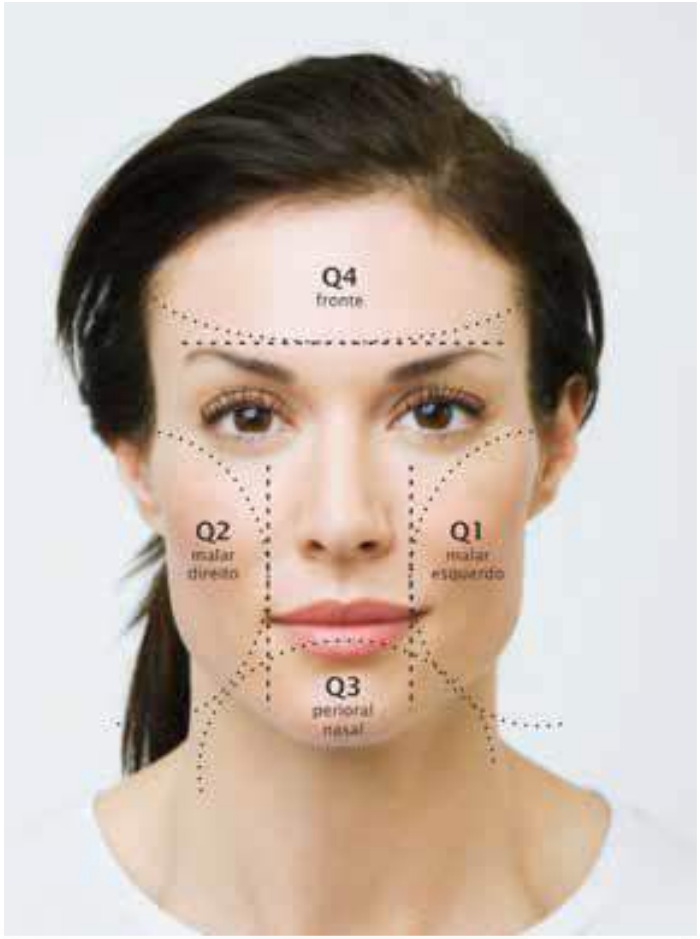
DYNAMICS MODE, micropulsed ND:Yag



- LongPulse DYNAMICS, for *thermal peeling* – **rejuvenation** (in general); **onychomycosis, dilated pors, fine lines, scars, difused redness, rosácea flushing**
- **pulse duration**
  - 300 µs, 650 µs and 1 ms
- painless;
- no contraindication with respect to the phototype;

ETHEREA-MX® LongPulse®

parameters and clinical guidelines



- **1,000 to 2,000 shots** per quadrant, depending on the model;
- average of 6,000 to 10,000 shots on one whole face;
- if patient indicates very hot sensation **, reduce frequency of shots – 10, 7, 5, 2 Hz;**
- **immediate results,** but on average **1 to 8 treatment sessions** are performed **;**
- **Interval:** 15 or 30 days;
- **Spot 6mm, 650micros, 10J/cm2**

ETHEREA-MX® LongPulse®

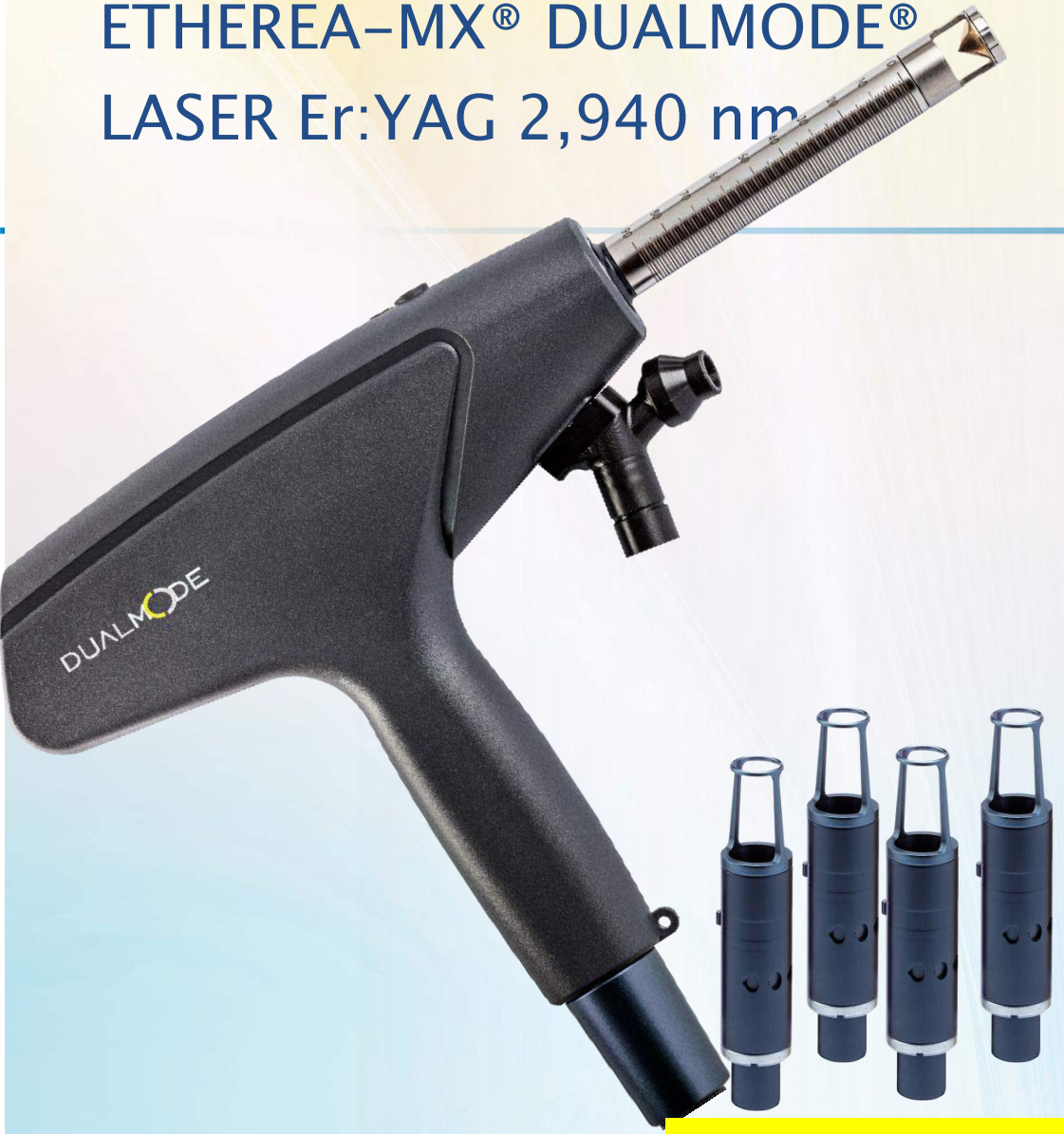
Dynamics Mode: Courtesy Dra Valeria Campos

Before

After 4 TX

ETHEREA-MX® DUALMODE®
LASER Er:YAG 2,940 nm

DUALMODE



- Ø 2,5 and 6mm Collimated
- 8mm, 100 and 400Mtz/cm@

INDICATIONS

- **Fractional Resurfacing;**
- **Photo Rejuvenation;**
- **Collagen Stimulation,** fine lines and moderate to severe wrinkles
- **Scars:** atrophic, hypertrophic, acne, traumatic and surgical;
- **Keratosis**
- **Benign pigmentary skin lesions**
- **Laser peel** with superficial tissue vaporization;
- **Warts.**

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ETHEREA-MX® DUALMODE®
LASER Er:YAG 2,940 nm

- Ø 2,5 and 6mm Collimated
- 8mm, 100 and 400Mtz/cm@

- **interval between sessions:** monthly or every 2 months;
- **average number os sessions:** 3 to 5;
- **special care** required in post-treatment

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ETHEREA-MX® DualMode®

technical features

DUALMODE

wave-lenght	2,940nm
spot size	Collimated: 6mm Fractional: 8mm/100mtz and 8mm/400mtz
maximum fluence	Up to 60mj/mtz
pulse duration	300µs a 5 ms

DualMode®: Clinical Guide

fractional ablative resurfacing

DUALMODE

mJ/mtz energy	the higher the greater the aggressiveness
fluence mJ/cm ^{2}	the higher the greater the aggressiveness
number of applications	the higher the greater the aggressiveness
pulse duration <500 µs	purely ablative effect
pulse duration <1ms	coagulative effect
double pulse, DualMode	first ablative pulse followed by another coagulative

* the longer the pulse duration, the greater the coagulative effect on the shot

** DUALMODE pulse is more aggressive than the single shot

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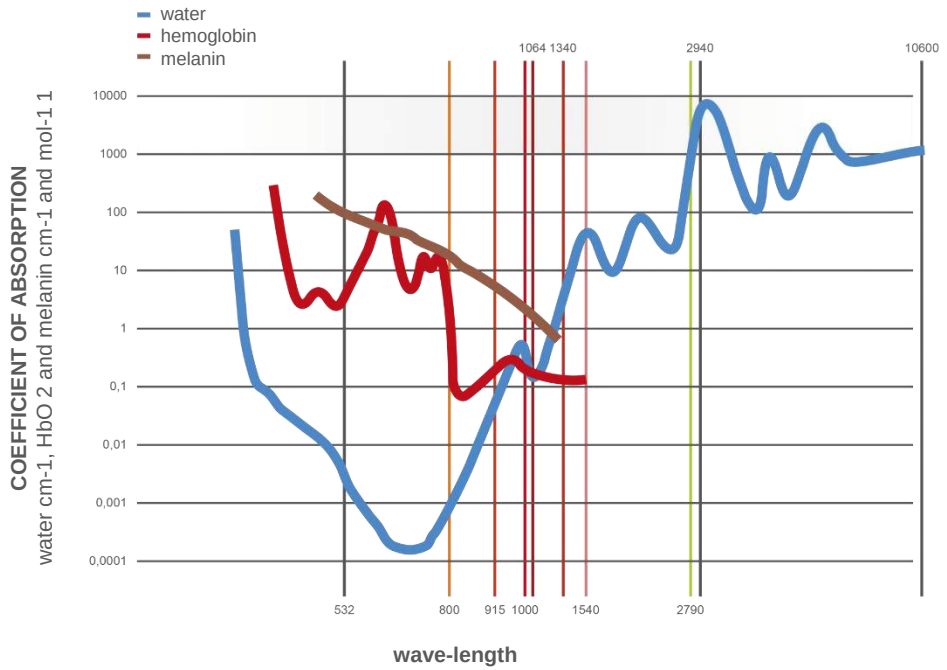
LASER Er:YAG 2,940 nm

target-chromophore and absorption curve



- technology that revolutionized dermatology, introduced in 2004 by Mainstein et al*
- works with the vaporization (ablation) of tissue
- there are 3 wave-lengths among fractional ablatives:
  - **2,790 nm:** Solid state LASER: YSGG (erbium-doped: yttrium-scandium-gallium-garnet)
  - **2,940 nm:** Solid state LASER, Er: YAG (erbium-doped: yttrium-aluminum-garnet)
  - **10,600 nm:** gas LASER, CO2

*** Manstein et al. FRACTIONAL PHOTTHERMOLYSIS: A NEW CONCEPT FOR CUTANEOUS REMODELING USING MICROSCOPIC PATTERS OF THERMAL INJURY. LASERs Surg Med 2004;34:426-38.**

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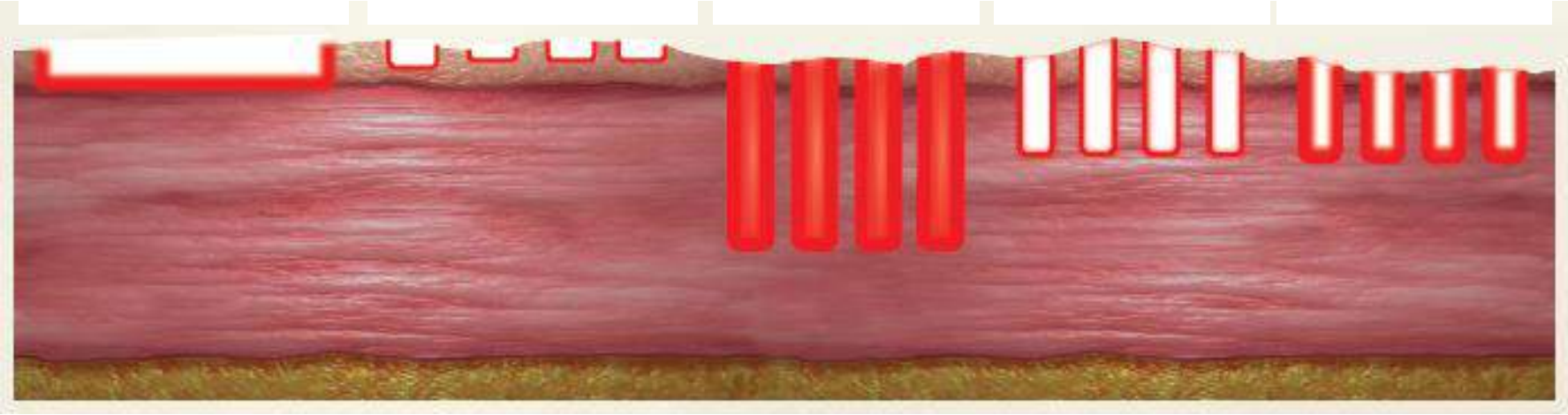
LASER Er:YAG 2,940 nm

ablation, coagulation and ablation-coagulation

DUALMODE

Ablative Skin Resurfacing	Fractional Ablative Superficial Skin Resurfacing	Fractional Non-ablative Skin Resurfacing	Fractional Ablative Skin Resurfacing	DualMode® Fractional Ablative/Coagulative Skin Resurfacing (CO2-like)
(CO2, Er:YAG 2,940 nm)	(CO2, Er:YAG 2,940 nm)			
10-200 µm	10-70 µm	600-1,000 µm	100-300 µm	100-300 µm



- Two types of Er:YAG - **LASER peel**, with pure ablative shots (*single-moded LASERs*), and **double pulse**, with combined ablative and coagulative shots (*dual-moded LASERs*);
- **DualMode® technology:** ablative and coagulative pulse in a single shot, simulating the coagulative effect inherent to CO_2 LASERs;

Ibrahimi OM, Fitzpatrick RE, Goldman MP, Kilmer SL. SKIN RESURFACING WITH ABLATIVE LASERS. IN: GOLDMAN MP, FITZPATRICK RE, KILMER SL, WEISS RA. LASERs and Energy Devices for the Skin. 2nd Ed. CRC Press, 2013.

LASER Er:YAG 2,940 nm

ablation, coagulation and ablation-coagulation

DUALMODE

Comparative	ABLATIVE	NON-ABLATIVE
target-chromophore	H2O	H2O
chromophore absorption	higher	lower
direct effect	vaporization	coagulation
time-response	48-72 hours.	24 hours.
general advantages	lasting results evident improvement high patient satisfaction less no. of sessions	satisfactory treatment extra-face tx safety reduced erythema downtime higher no. of indications greater versatility

ETHEREA-MX® DualMode®: **Results and Casebook**

LASER Er:YAG 2,940 nm

After 2 Txs

DUALMODE

LASER Er:YAG 2,940 nm

After 2 Txs

DUALMODE

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LASER Er:YAG 2,940 nm

After 1 Tx

DUALMODE

LASER Er:YAG 2,940 nm

Courtesy: DR Valeria Campos – After 2 Txs

DUALMODE

LASER Er:YAG 2,940 nm

Courtesy: DR Valeria Campos – After 2 Txs

DUALMODE

ETHEREA-MX® GoSmooth®

- **Gold Standard Erbium-Glass 1540nm t**echnology of wide international acceptance in different global markets;
- **versatile:** *spots* available at 100 and 400 mtz/cm²;
- **better usability**, with square *spot*;
- optical arrangement system of the **high performance fractional lenses**;
- plus a fractional non-ablative LASER option for ETHEREA-MX;

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ETHEREA-MX® GoSmooth®

INDICATIONS

- fractional non-ablative *resurfacing*, stretch marks, scars – acne, surgical, recent, atrophic;
- **off-label:** melasma, alopecia and onychomycosis;
- better indication: **stretch marks** and **acne scars**;
- removal of superficial pigmented lesions – *skin toning*, whitening;

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ETHEREA-MX® ProDeep®

- **unique and exclusive** wave-length **in the market** – Nd-Yap 1,340 nm;
- **greater relative penetration** than the *gold standard* options available**;**
- coagulation effect at a more intense level, greater **bulking of subdermal heating**;

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ETHEREA-MX® ProDeep®

INDICATIONS

- fractional non-ablative resurfacing, stretch marks, scars – acne, surgical, recent, atrophic;
- **off-label:** melasma, alopecia and onychomycosis;
- better indication: **stretch marks** and **acne scars**;
- **Clinical Studies:** Nodulocysthic Acne resistant to isotretinoin. Hydrosadenite. Folliculitis Decalvant, Folliculitis Dissecans

ETHEREA-MX® ProDeep®

- **interval between sessions:** monthly or every 2 months;
- **average number of sessions:** 3 to 7;
- Average downtime of **1 day with edema and slight erythema**;
- for **strech marks**, relative to **3 days**;
- **Contraindication** to treatment: pregnancy;
- Frequently **combined** with **IPL** Treatments.

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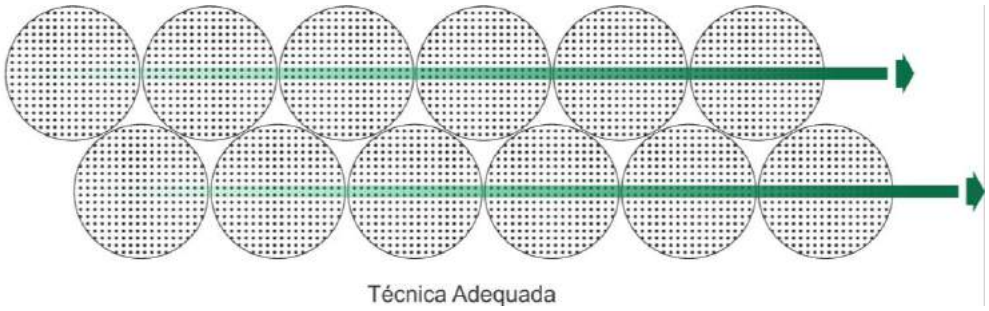
ETHEREA-MX® ProDeep®

technical features

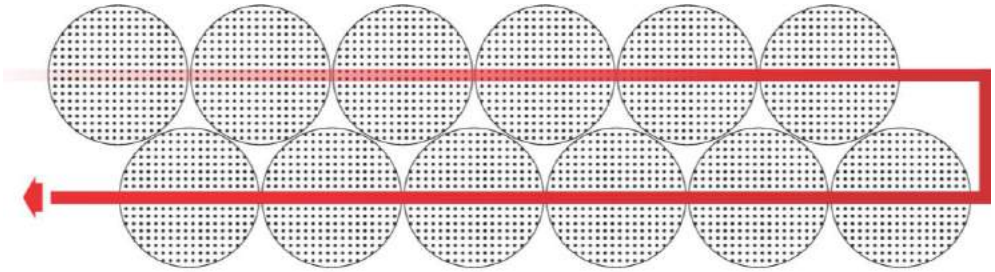
wave-length	Nd:YAP 1,340 nm
spot size	8 mm and 100 mtz/cm^2 10 mm and 400 mtz/cm^2 6 mm, collimated
maximum fleunce	200 mJ/mtz
pulse duration	3 to 20 ms
	with integrated cooling coupling; cold-air cooling

ProDeep®: Clinical Guide

How to treat

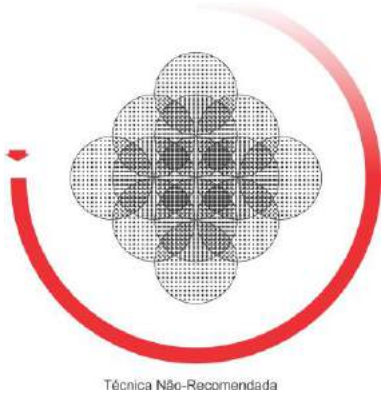


Técnica Adequada



Técnica Não-Recomendada

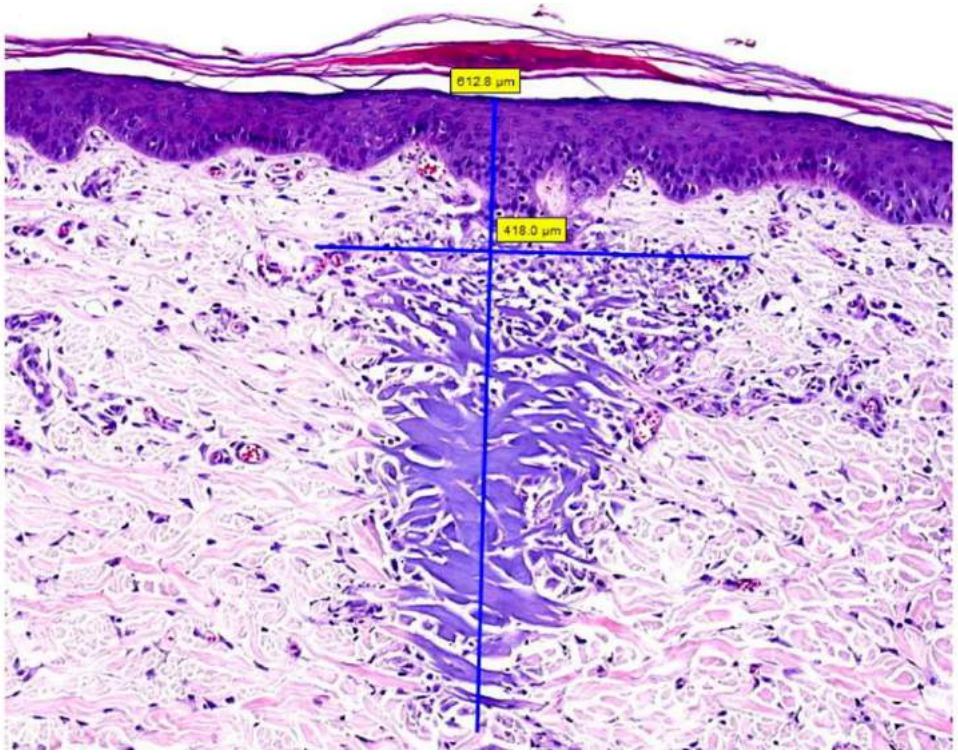
- **be careful with stacking during application;**
- **possible tissue retraction if the mode of application is not followed;**
- subdermal effect may generate unwanted heating bulking



Técnica Não-Recomendada

LASER Nd:YAP 1,340 nm

ablation, coagulation and ablation-coagulation



- …
- FIg 2-C: shows depth (612,8 µm) and width/diameter (418,0 µm) of fractional microscopic treatment zone at 1,340 nm (fractional non-ablative LASER) in the tissue at D3 with 8 x 8 mm spot size, 100 MTZ/cm2 and 200 mJ/MTZ.

Casebook e Resultados

rejuvenescimento

foto cortesia de Valéria Campos, MD. Jundiaí, SP, Brasil.

Workshop ETHEREA 2014

fotos de antes e depois de 1 sessão de tratamento

100 mtz/cm², 90mJ/mtz, 5 ms;

Casebook e Resultados

acne

foto cortesia de Valéria Campos, MD. Jundiaí, SP, Brasil.

Workshop ETHEREA 2014

fotos de antes e depois de 1 sessão de tratamento

100 mtz/cm², 120mJ/mtz, 5 ms

4º encontro dos usuários etherea®
SÃO PAULO, SP • 19 DE AGOSTO DE 2017

“ Strech Marks treatment with non-ablative technologies”

Dra. Luiza Pitassi

Doutorado e Mestrado - Dermatologia - UNICAMP

Coordenadora do Ambulatório de Cosmiatria - UNICAMP

Faculdade de Ciências Médicas
Dermatologia Unicamp

Luiza Pitassi

Non-ablative Lasers

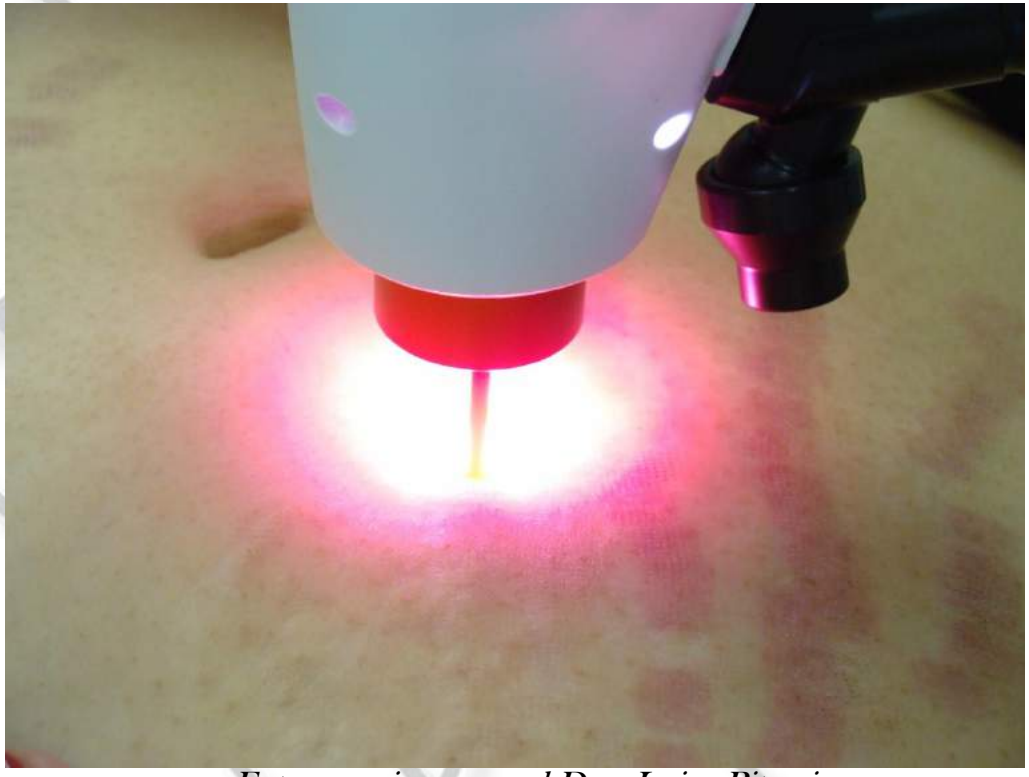


Foto: arquivo pessoal Dra. Luiza Pitassi

Tecnologias NÃO ABLATIVAS	Comprimentos de onda
Er:Glass	1540 nm
Nd:YAP	1340 nm
IPL	400-1200nm

1-Taub AF.Fractionated delivery systems for difficult to treat clinical applications: acne scarring,melasma,atrophic scarring, striae distensae,and deep rhytides. J Drugs Dermatol. 2007; 6(11):1120-8.

2-El Ammar, A. B. P. C., Campos, V. B., & Duquia, R. P. (2010). Análise clínica de 16 pacientes consecutivos tratados com LUX 1540® para rejuvenescimento. *Surgical & Cosmetic Dermatology*, (3), 221-224.

℘ Non-ablative Lasers

The target is Water

SAFE FOR ALL SKIN TYPES!!!

Clark CM, Silverberg JI, Alexis AF . A retrospective chart review to assess the safety of nonablative fractional laser resurfacing in Fitzpatrick skin types IV to VI. J Drugs Dermatol. 2013 Apr;12(4):428-31.

1540 nm

8mm - 100mtz/ cm²

- Min Fluence- 15 mJ
- Max Fluence– 95mJ

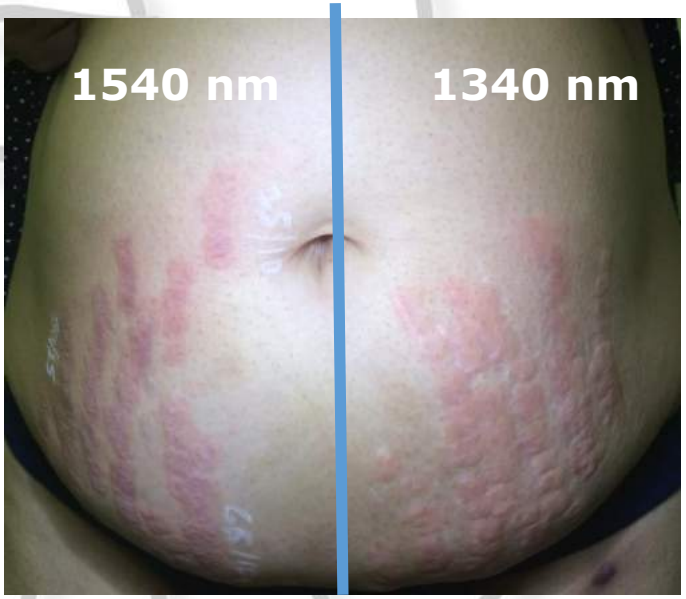
- **55-65-75mJ/ 10ms**

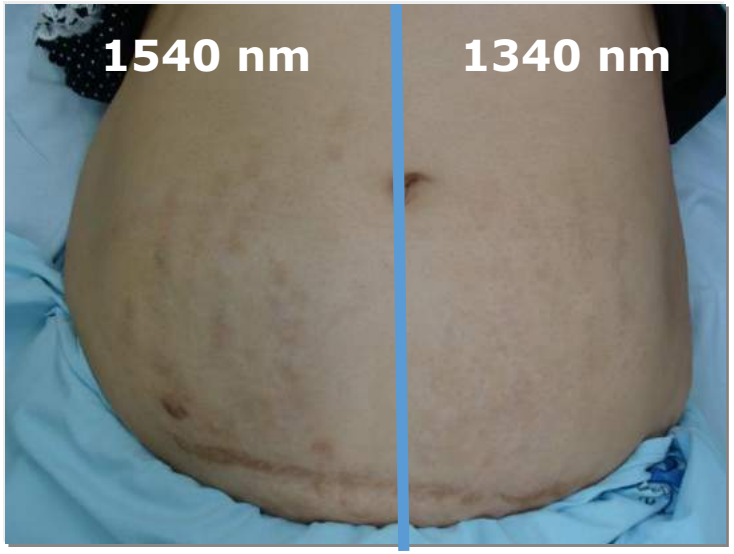
1340 nm

8mm - 100mtz/ cm²

- Min Fluence- 60 mJ
- Max Fluence– 200 mJ

- **110mJ/ 3ms**

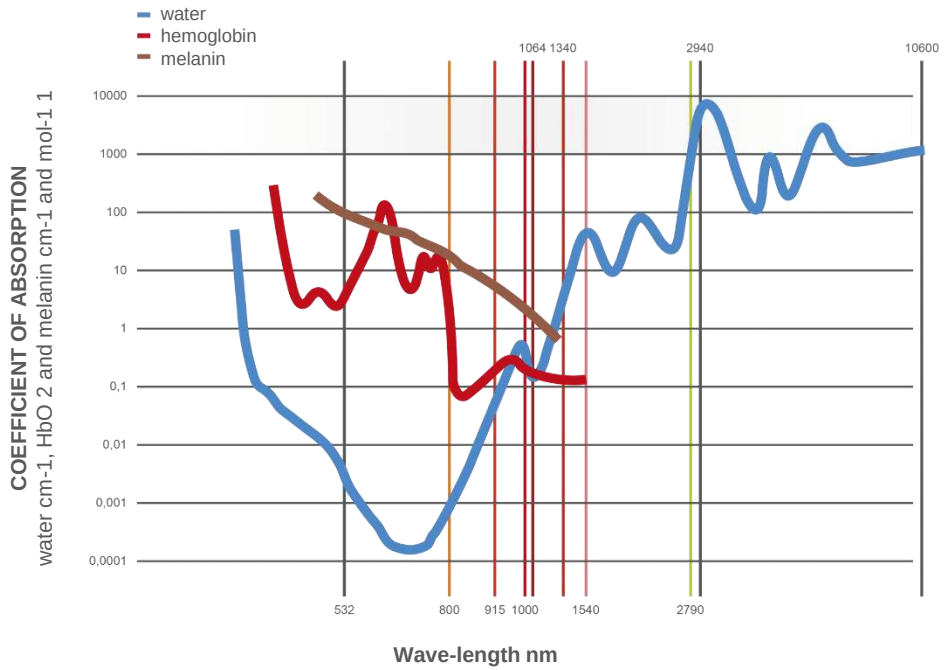




Luiza Pitassi

LASER Nd: AP 1,340 nm

target-chromophore and absorption curve



- there are several wave-lengths among the fractional non-ablative;
- gold standard technologies for rejuvenation (commercial) are the main ones today;
  - **1,320 nm:** Solid state LASER, Nd: YAG;
  - **1,440 nm:** Diode LASER, by fiber;
  - **1,340 nm:** Solid state LASER, Nd:YAP;
  - **1,540 nm:** Solid state LASER, Er:Glass;
  - **1,540 nm:** Solid-state laser, Er:Glass, with optical fiber delivery and scanner;

*** Manstein et al. FRACTIONAL PHOTTHERMOLYSIS: A NEW CONCEPT FOR CUTANEOUS REMODELING USING MICROSCOPIC PATTERS OF THERMAL INJURY. LASERs Surg Med 2004; 34: 426-38.**

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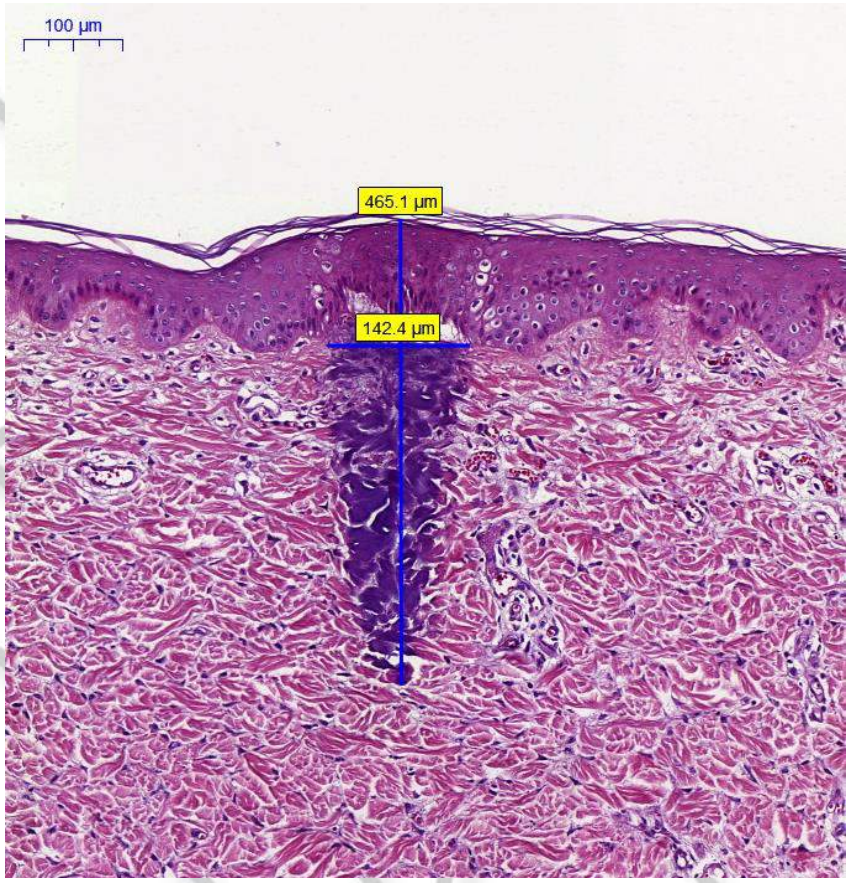
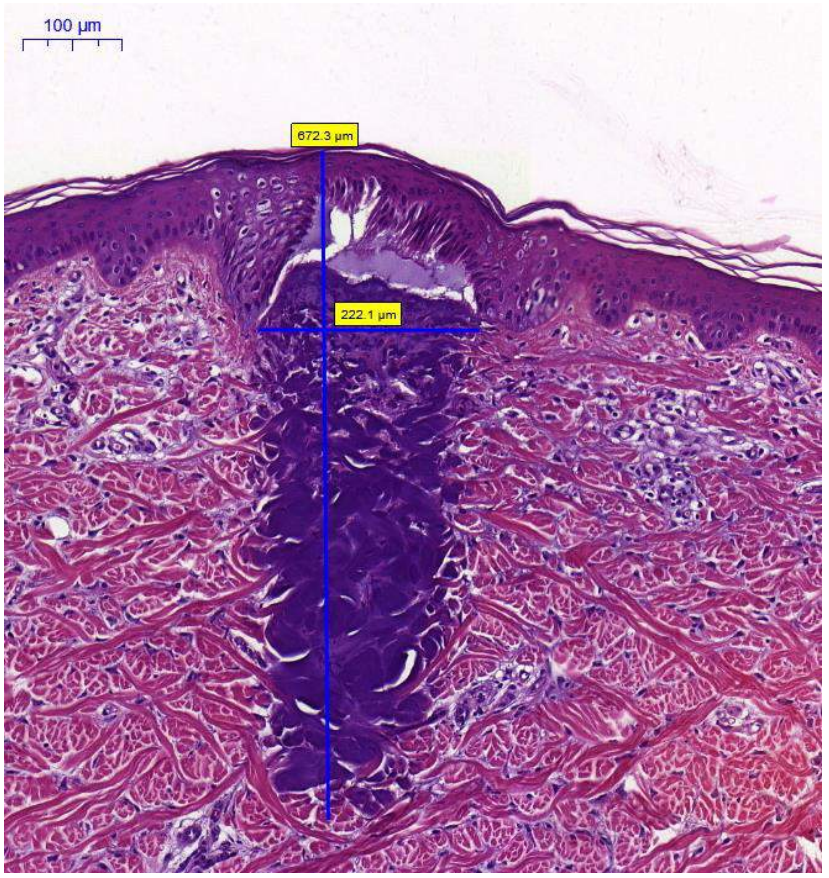
℘ Nd YAP:1340nm



1340 – 8mm / 60J



1340 – 8mm / 130J

Fotos: arquivo pessoal Dra. Luiza Pitassi

Luiza Pitassi

℘ Technologies Association
℘ IPL + LASER

RED STRECH MARKS

- IPL + Fractional Non-Ablative Laser + optimal results

- 3 to 5 treatments 30-60 day apart

➢ ***IPL: 540nm, 13- 16mJ/15ms, 1 pass (Skin Thypes I-IV)***

➢ ***ProDeep 1340nm: 100-140mJ/3ms***

Spot 8mm/100 mtz /cm2

Luiza Pitassi

ETHEREA-MX® ProDeep®

Results: Courtesy of Dr Carlos Roberto Antonio

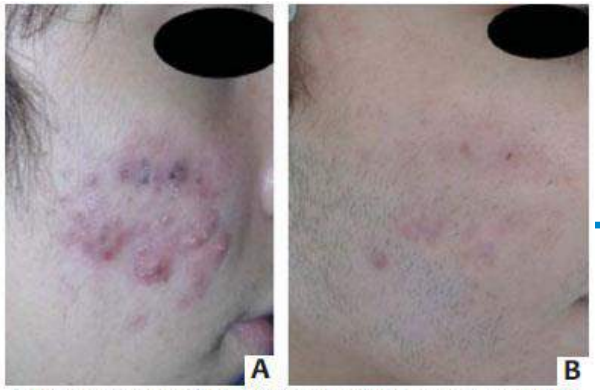


FIGURA 1: Lesões acneicas antes do tratamento (A) e após o tratamento (B)

Nodulocysthic Acne resistant to isotretinoin

FIGURA 2: Lesões acneicas antes do tratamento (A) e após o tratamento (B)

Protocol and Guidelines:
2 to 6 Txs
30 days apart
Spot 8mm/100mtz
100mj / 3ms

FIGURA 3: Lesões acneicas antes do tratamento (A) e após o tratamento (B)

ETHEREA-MX® ProDeep®

Hidradenits : Courtesy of Dr Carlos Roberto Antonio

Protocol and Guidelines:
4 Txs, 30 days apart
Spot 8mm/100mtz
100mj / 3ms

Before

After 4 months

3 years FUP

CICATRIZ DE ACNE

PRODEEP

Acne Scars: after 3 Txs

Antes

Depois

PONTEIRA: 100 mtz/cm²	TEMPO DE PULSO: 5 ms
ENERGIA: 125 mJ/mtz	NUMERO DE PASSES: 1

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CICATRIZ DE ACNE

PRODEEP

Antes

Depois

PONTEIRA: 100 mtz/cm²	TEMPO DE PULSO: 5 ms
ENERGIA: 125 mJ/mtz	NUMERO DE PASSES: 1

vydence medical | Uma empresa Adavium Medical

CICATRIZ DE ACNE

PRODEEP

Antes

Depois

PONTEIRA: 100 mtz/cm²	TEMPO DE PULSO: 5 ms
ENERGIA: 120 mJ/mtz	NUMERO DE PASSES: 1

vydence medical | Uma empresa Adavium Medical

CICATRIZ DE ACNE

PRODEEP

Antes

Depois

PONTEIRA: 100 mtz/cm²	TEMPO DE PULSO: 5 ms
ENERGIA: 125 mJ/mtz	NUMERO DE PASSES: 1

vydence medical | Uma empresa Adavium Medical

CICATRIZ DE ACNE

PRODEEP

Antes

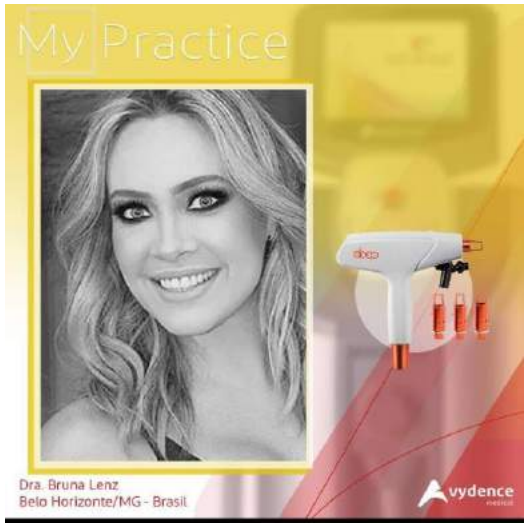
Depois

PONTEIRA: 100 mtz/cm²	TEMPO DE PULSO: 5 ms
ENERGIA: 125 mJ/mtz	NUMERO DE PASSES: 1

vydence medical | Uma empresa Adavium Medical

LASER Nd: AP 1,340 nm

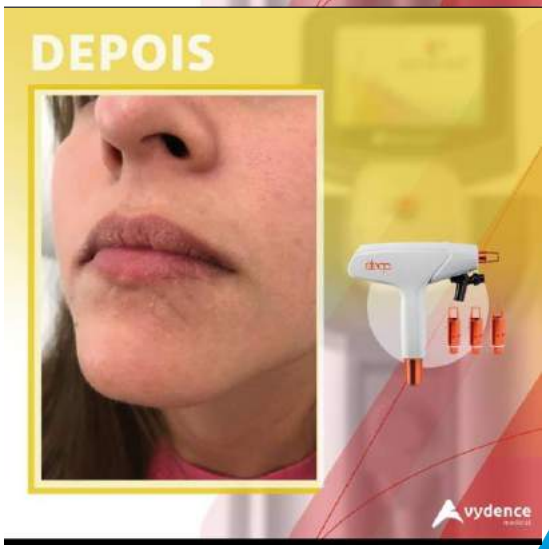
Scars: Courtesy Dr. Bruna Lenz



Before

4 Txs - 30 days apart
Spot 8/100mtz
115- 140mj/mtz
5ms

After



ETHEREA-MX® IPL-Sq®

- **highly flexible system:** can treat a set of conditions with a single device;
- **effective:** the results are good, similar to some laser applications;
- **safe:** proven by hundreds of scientific papers and years of clinical practice;

ETHEREA-MX® IPL-Sq®

- *all-in-one system*: **one handpiece, with multiple** plug-and-play **cutting filters**, slice, at 400, 540, 580, 640 and 695 nm;
- exclusive 695 nm cutting filter, **indicated for high phototypes**;
- pulses of 5 to 100 ms, which offer **aggressiveness when needed and safety when required**;
- **a single handpiece that offers unparalleled versatility** in the market, maximizing the potential indications of technology;

ETHEREA-MX® IPL-Sq®

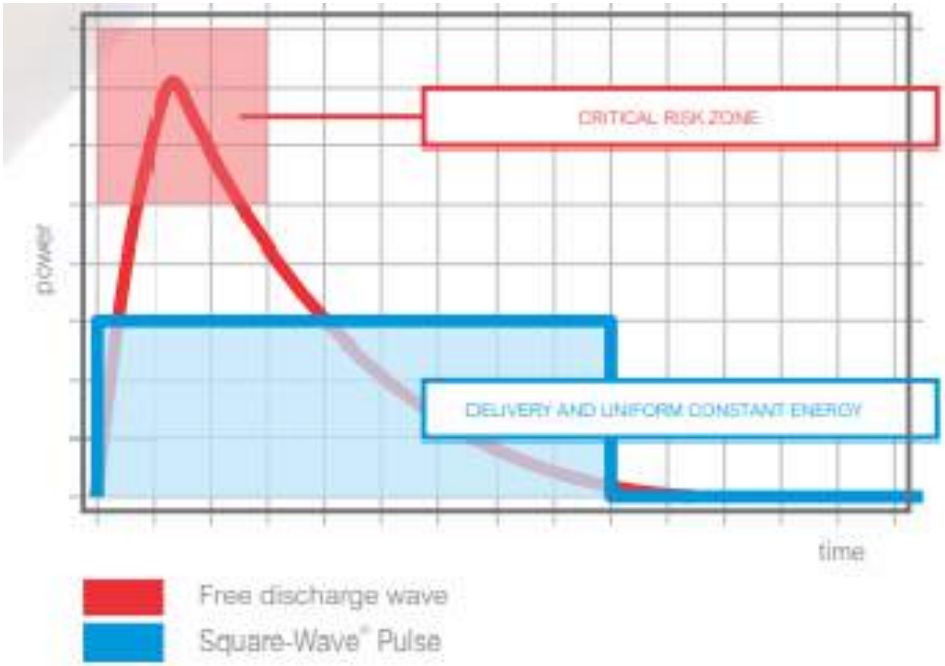
- **wide coverage area**, with 40 x 12 mm, 4.8 cm^2;
- VascuTips® with Ø 8 mm and 12 x 12 mm **for localized lesions**;
- repetition rate of up to 2 Hz, offering **much faster treatment**;

- **wide coverage area means greater profitability**, with fewer shots needed to treat the same area;

ETHEREA-MX® IPL-Sq®

- **sapphire contact cooling**, ranging from 5 to 20 ºC with 5 levels of intensity;
- sapphire is different from other materials because of its **high efficiency cooling**;
- protects the epidermis against possible collateral damage to the treatment;
- mild anesthetic effect, reducing patient discomfort during the treatment;
- allows higher fluences to be used for greater and better results;

ETHEREA-MX® IPL-Sq®



- fluency up to 33 J/cm^2, with delivery of *S*quare-Wave Pulse wave, optimizing safety and increasing results;
- on the free discharge wave**, the risk of adverse effects is higher**, since the peak temperature reached is much higher than that actually required;
- **in the format wave Square-Wave Pulse, the values are constant, with calculated and controlled discharge**, ensuring uniform distribution of energy throughout the pulse;

ETHEREA-MX® IPL-Sq®

Choosing the right filter

Pigmented lesions

- **540 nm:** light phototypes, clearer and/or superficial lesions;
- **580 nm:** high phototypes, very dark and/or deep lesions;

- **IMPORTANT:** when using VascuTips, maintain level of cooling in 5
- Late reactions to treatment, considered desirable are moderate erythema around the lesion, with corresponding darkening, with no visible change in the adjacent tissue (localized effect on the lesion);

Vascular lesions

- **540 nm:** light phototypes, superficial lesions;
- **580 nm:** high phototypes, deep lesions;

- **IMPORTANT:** fluency and pulse time should be adjusted according to vessel size and patient's phototype;
- when using vascular tips, maintain cooling at level 5.
- do not press the vessels before and during the shot, since this implies the blood dispersion and consequent treatment ineffectiveness;
- do not treat vascular lesions superimposed by pigmented lesions and/or hair;
- indications for face and trunk only, due to the superficial location of the lesions in the tissue (lower limbs lesions tend to deepen);

ETHEREA-MX® IPL-Sq®

Choosing the right filter

Active Acne

- **filter 640 nm:** anti-inflammatory acticity
- **filter 400 nm:** activity in protoporphyrin produced by *P. Acnes*;

level of cooling	levels 4 or 5 for comfort and safety
number of sessions	from 1 to 10 *depends on degree of involvement and lesions
interval between sessions	7 to 14 days * do not exceed more than 14 days
time for results	the expected improvement is usually immediate
relative downtime	none

ETHEREA-MX® IPL-Sq®

Choosing the right filter

Rejuvenation

- for cases of rejuvenation associated with **pigmented lesions** and/or **vascular lesions**, use parameters corresponding to the indication and only after that proceed with the rejuvenation treatment;
- the **640 and 695 filters** can be used in combination with all other treatment modalities, offering an interesting complementary alternative to the procedures;

Relato de Caso

IV Encontro dos Usuários do ETHEREA

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Mancha Vinho do Porto

Luz Pulsada – filtro 540 – ETHEREA

Antes

Depois

J.M.J.S.M, 37 anos, com diagnóstico de Mancha Vinho do Porto, iniciou tratamento com Luz Pulsada (filtro 540-Etherea), foto após 5 sessões, realizadas com intervalo mensal, com parâmetros que variaram17-19 J/cm e 15 ms. Nota-se clareamento importante, além da melhora das lesões nodulares. Fotos cortesia de: Dra Heloisa B Tiraboschi Romanholi

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Active Acne: Courtesy Dra Celia Kalil

Before

After 10 Txs

640nm 16J/cm² 30ms Face

640nm 18J/cm² 100ms Cheeks and chin

400nm 12J/cm² 30ms Cheeks and chin

Poiquilodermia de Civatte: Courtesy Dra Celia Kalil

Before **After 2 Txs**

IPL 540nm
15ms 13 - 15J

IPL + Prodeep 1340nm: Courtesy Dra Célia Kalil

30/30d

540nm 12x12mm 10ms 15J - 20/cm²

Prodeep 1340nm 8mm 100MTZ/cm² 5ms 70-90mJ/MTZ

Casebook e Resultados

lesões pigmentares

fotos de antes e depois do tratamento

Casebook e Resultados

lesões pigmentares

fotos de antes e depois do tratamento

Casebook e Resultados

lesões vasculares

fotos de antes e depois do tratamento

Casebook e Resultados

lesões vasculares

fotos de antes e depois do tratamento

Casebook e Resultados

cicatrizes

fotos de antes e depois de 5 sessões de tratamento
1: 540 nm 16 J/cm² 20 ms [IPL-Sq]; 100 mtz/cm², 130mJ/mtz, 3 mm [ProDeep];
2: 540 nm 17/18 J/cm² 15 ms; [IPL-Sq]; 100 mtz/cm², 140mJ/mtz, 3 mm [ProDeep];
3-5: 540 nm 17/18 J/cm² 10 ms; [IPL-Sq]; 100 mtz/cm², 150mJ/mtz, 3 mm [ProDeep]

Casebook e Resultados

lesões vasculares

foto cortesia de Lilian Braga, MD. Sorocaba, SP, Brasil

fotos de antes e depois de 5 sessões de tratamento
540 nm 15 J/cm² 20 ms;

Casebook e Resultados

lesões vasculares + lesões pigmentares

fotos de antes e depois do tratamento

Casebook e Resultados

cicatrizes

foto cortesia de Célia Kalil, MD. Porto Alegre, RS, Brasil.

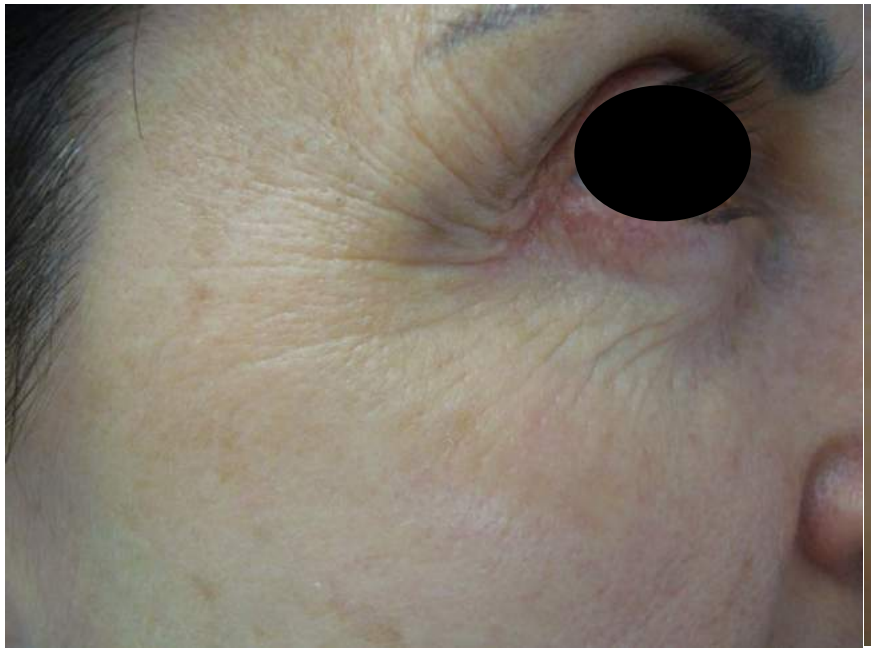
IV Encontro dos Usuários ETHEREA

fotos de antes e depois de 4 sessões de tratamento

540 nm 15 J/cm² 15 ms;

Casebook e Resultados

rejuvenescimento



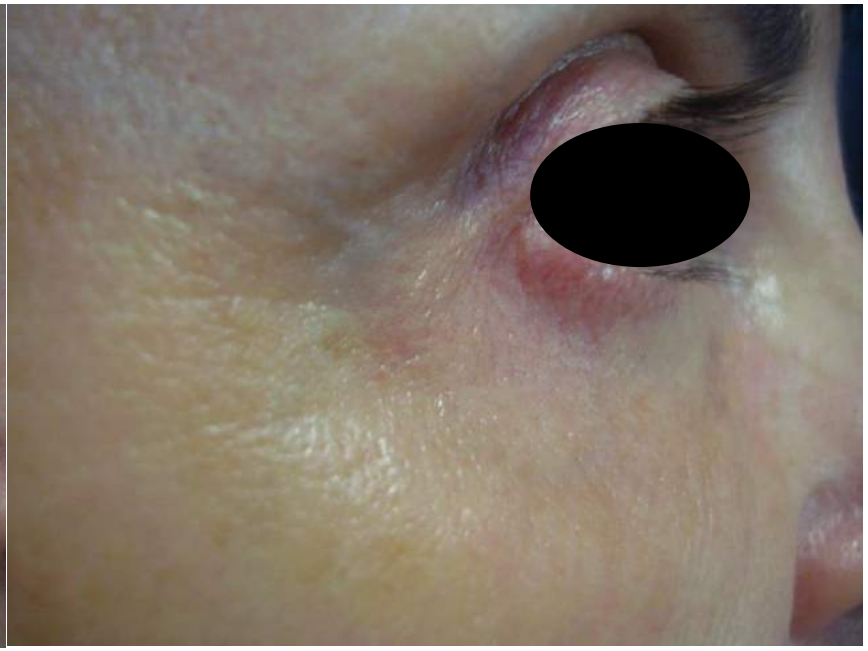


foto cortesia de Airá Novello Villar, MD. Concórdia, SC, Brasil.

III Encontro dos Usuários ETHEREA

fotos de antes e depois do tratamento

540 nm 15 J/cm² 15 ms; [IPL-Sq]

160mJ/mtz 5 ms; [ProDeep]

ETHEREA-MX® Intense IR®

wavelength and absorption curve

INTENSE IR

- **IntenseIR** source of high energy infrared light
- Gold Standart for **Skin Tightening;**
- **Face, Neck** and **body** treatments;
- **no contraindication** with respect to the **phototype**;
- Painless (dynamics mode);
- No **downtime**.

LASERs Surg Med. 2005 Feb; 36 (2): 105-16. LASER TREATMENT OF LEG VEINS: PHYSICAL MECHANISMS AND THEORETICAL CONSIDERATIONS. Ross EV1, Domankevitz Y.

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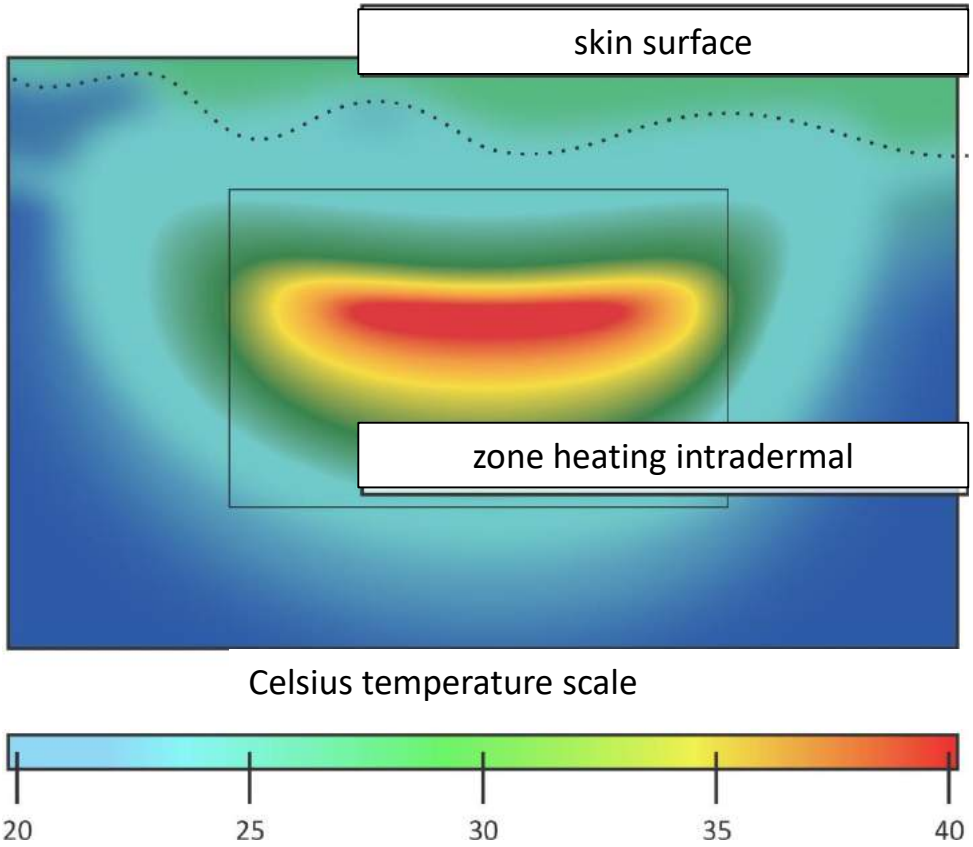
IPL: Intense Pulsed Light

wavelength and absorption curve

INTENSE IR



- Thermal image shows the heating in the target tissue. Adjacent zones are protected and cooled. The epidermis is maintained at a safe temperature (less than 40 ° C).

ETHEREA-MX® Intense IR®

interface parameterization and usability

- **fluency:** in J/cm², referring to energy delivered in the area of the tx;
- **pulse time:** in seconds, time that the tissue will be exposed to IR.
- **Pre-cooling:** in seconds, before the pulse. Protects the epidermis, preventing subsequent damage(only stamp mode)
- **Post-cooling**: in seconds. After the pulse(only stamp mode)

ETHEREA-MX® Intense IR®

Treatment Protocol

INTENSE IR

- **3 treatments,** 30 days apart. 6 months maintenance.
- **Dynamics application.**
- **5 – 8 pulses per area 20 to 30 on face, and 25 to 35 on the neck.**

ETHEREA-MX® Intense IR®

Casebook: Skin Tightening

INTENSE IR

TP 10 s, 91 J/cm^2, *pre/post-cooling* 0

ETHEREA-MX® Intense IR®

Casebook: Skin Tightening

TP 10 s, 91 J/cm^2, *pre/post-cooling* 0

ETHEREA-MX® Intense IR®

Casebook: Skin Tightening

INTENSE IR

TP 10 s, 91 J/cm^2, *pre/post-cooling* 0

ETHEREA-MX® Intense IR®

Casebook: Skin Tightening

TP 10 s, 110,5 J/cm^2, *pre/post-cooling* 0, *cooling* nível 5

RELEVANT PLATFORM FEATURES	MX	JOULE	XEO	ICON	M22	HRMNY
IPL all-in-one handpiece	✓	✓	×	×	✓	×
IPL square-wave pulse	✓	✓	✓	✓	×	×
IPL accurate spot sizes	✓	✓	×	✓	✓	×
halogen **IR** body & face tx options	✓	×	✓	✓	×	✓
q-switched LASER handpiece	✓	×	×	×	✓	✓
QS fractional q-switched system	✓	×	×	×	×	✓
1064 higher energy (vascular)	✓	✓	✓	✓	✓	✓
1064 therma-peel, short-pulsed	✓	✓	✓	×	×	×
1340 unique, deep epidermal	✓	×	×	×	×	×
1540 gold standard LASER	✓	×	×	✓	✓	✓
2940 dual-effect Er:YAG (CO_2-like)	✓	✓	×	✓	×	×
2940 short pulsed LASER peel	✓	✓	×	✓	×	×
2940 intraoral LASER lift	✓	✓	×	×	×	×
2940 intimate LASER tx option	✓	✓	×	×	×	×

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