

HIGHLIGHTS



SINGAPORE

3-8 / july / 2023

Con el patrocinio de:



Iniciativa científica de:





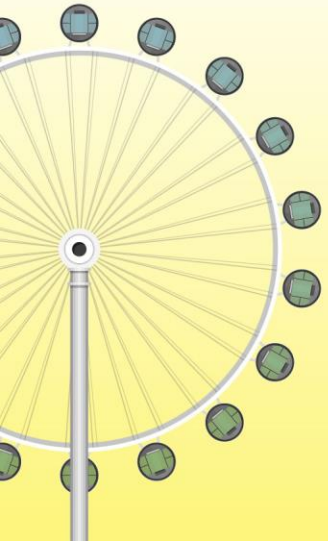
DERMATOLOGÍA ESTÉTICA Y LÁSER

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No tengo conflictos de interés

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25th World Congress of Dermatology

WEDV

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Toxina botulínica

Con el patrocinio de:



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AMERICAN SOCIETY FOR AESTHETIC PLASTIC SURGERY (ASAPS) 2020 COSMETIC SURGERY NATIONAL DATA BANK STATISTICS

TOP FIVE NONSURGICAL PROCEDURES IN 2019 WERE :

- Botulinum Toxin
- Hyaluronic Acid fillers
- Nonsurgical Fat reduction
- Hair Removal
- Chemical peeling



Gender Distribution :

Female =94,5 %
Male= 5.5 %

Most common Non-Surgical cosmetic procedures in men:

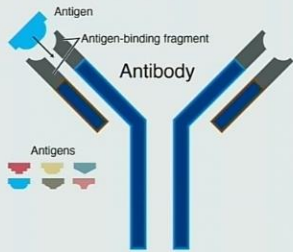
Botulinum Toxin
Hyaluronic Acid fillers
Nonsurgical Fat reduction
Hair Removal
Photorejuvenation(iPL)
Chemical peeling



¿A qué se debe la pérdida de eficacia de la toxina botulínica?



Is it because of resistance or ar



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 Dr. Marina Landau
Dermatology & Aesthetics

Botulinum Toxin Type A Immunogenicity across Multiple Indications: An Overview Systematic Review

Eqram Rahman, M.B.B.S.,
M.S., Ph.D.
Pooja S. Banerjee, M.Pharm.
Andleeb Asghar, D.Pharm.
Niraj Kumar Gupta, M.B.B.S.,
M.S.
Afsin Mosahebi, F.R.C.S.,
Ph.D., M.B.A.

*Hampstead and London, United
Kingdom; Jaunpur, India; and Lahore,
Pakistan*

Background: Botulinum toxin type A has been used to treat a wide array of neurologic, medical, and aesthetic indications. Several factors contribute to the formation of neutralizing antibodies, such as shorter intervals of treatment, higher dosage, amounts of antigenic proteins, serotypes, and storage of formulations. **Method:** This overview followed the Cochrane guideline for overview reviews. The AMSTAR-2 (revised version of A Measurement Tool to Assess Systematic Reviews) tool was used for the critical appraisal of the selected systematic reviews. **Results:** Five systematic reviews consisting of 203 studies (17,815 patients) were included, and their AMSTAR-2 scores were low to critically poor. There was high heterogeneity between the studies. Across the clinical indications, neutralizing antibody prevalence was significantly higher in dystonia, spasticity, and urologic conditions and nil to insignificant in hyperhidrosis and aesthetic indications.

the overall frequency of the development of neutralizing antibodies and the immunogenicity of abobotulinumtoxinA, incobotulinumtoxinA, and onabotulinumtoxinA remain low to insignificant.

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¿A qué se debe la pérdida de eficacia de la toxina botulínica?



1. Product delivery logistics and storage



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Periorbital wrinkles improvement assessment in elder ages should be performed at rest, not in motion



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2. Dose

doi: 10.1111/j.1524-4725.2005.31206.

Prospective, double-blind, randomized, parallel-group, dose-ranging study of botulinum toxin type A in men with glabellar rhytids

Alastair Carruthers¹, Jean Carruthers

Conclusion: Male participants with glabellar rhytids benefit from starting doses of at least 40 U of botulinum toxin type A. (Botox)

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3. When mimetic wrinkles are combined with static wrinkles, BTXA might provide insufficient outcomes

Full frowning before

Full frowning after



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¿A qué se debe la pérdida de eficacia de la toxina botulínica?



8. Inter-batch reproducibility

Toxins 2018, 10, 535

Table 1. Quantity (ng) of 150 kDa BoNT-A in Dysport using BoLISA[®] antibodies.

Product	Batch	Expiry Date
Dysport [®] 500 U	M00405	Dec. 2018
	L24950	Dec. 2018
	L22072	Oct. 2018
Botox [®] 100 U	C4321C3	Sep. 2019
	C4289C3	Sep. 2019
	C4270C3	Aug. 2019
Xeomin [®] 100 U	694458	Jul. 2019
	696232	Sep. 2019
	694788	Sep. 2019

Inter-batch reproducibility



The estimated potency is not less than 80 per cent and not more than 125 per cent of the stated potency. The confidence limits ($P = 0.95$) are not less than 80 per cent and not more than 125 per cent of the estimated potency.

80u < 100u < 125u
 255u < 300u < 375u
 400u < 500u < 625u

Complicaciones de toxina botulínica



GRANULOMATOUS REACTIONS / LOCALIZED ATROPHY

- ❖ 53 year old female patient
- ❖ Single previous injection 6 years ago
- ❖ Nodules appeared on the forehead and periocular region
- ❖ U/S 0,3-0,7 mm size nodules
- ❖ chronic granulomatous inflammation, numerous epithelioid macrophages, multinucleated giant Langerhans cells without evidence of necrosis
- ❖ The findings were interpreted as *sarcoid-like foreign body reaction*.
- ❖ *systemic manifestations suggestive of sarcoidosis* with bilateral hilar lymphadenopathy on computed tomography
- ❖ Crystals or **syringe lubricants**



Cutaneous sarcoidal granuloma after botulinum toxin type A injection
Till Assmann, MD
Dieter Krahl, MD Renz Mang, MD

Mujer de 53 años que sólo se había inyectado en una ocasión

Nódulos en zona periocular y frente

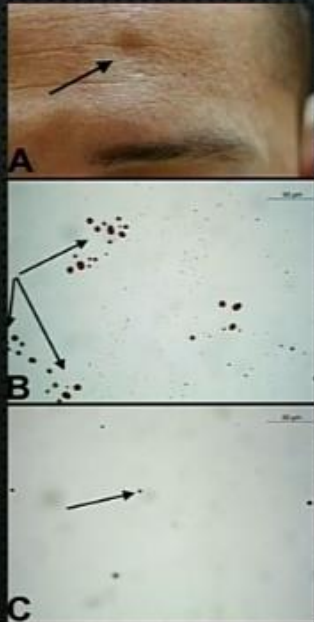
Reacción a cuerpo extraño a los cristales o lubricante de la jeringa

Complicaciones de toxina botulínica



"Flush technique" to minimize adverse reactions from syringe lubricant (silicone oil))

«Cutaneous granulomatous reactions at botulinum neurotoxin A injection sites: First manifestation of systemic sarcoidosis»



Pueden ser reacciones a cuerpo extraño por el lubricante de la jeringa

Puede ser también la primera manifestación de una sarcoidosis

Complicaciones de toxina botulínica



- Cuidado: muchas de las complicaciones son por una mala técnica de inyección:
 - Localización
 - Profundidad
 - Hematoma
 - Dilución/difusión...

To click or not to click - The importance of understanding the layers of the forehead when injecting neuromodulators - A clinical, prospective, interventional, split-face study

Kristina Davidovic¹, Dmitry V Melnikov², Konstan David L Freytag³, Stephan Heisinger⁶, Tatjana Pe Sebastian Cotofana⁹

Deep injection | Superficial injection

Frontal bone

Frontal bone

FOTINI SAGIADO
DERMATOLOGIST

Variables a considerar inyección de relleno

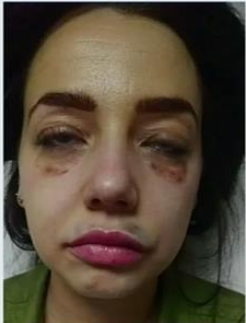
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VARIABLES IN A PROCEDURE COMPLICATION PATIENT



- Allergies or hypersensitivity
- Rheumatological diseases (Lupus, rheumatoid arthritis, Sjögren Sy)
- Three months after COVID infection or vaccines
- Three months after a dental procedure
- Patient must stop 2 days before the procedure. All supplements including ginkgo biloba, gingseng, omegas, licorice, anticogulants, etc....

▪ Pieretti G, et al. Hyaluronic acid-based fillers in patients with autoimmune inflammatory diseases. J Cosmet Dermatol. 2023 May 2. doi: 10.1111/jocd.15751.

- Alergias o hipersensibilidades
- Enfermedades reumatológicas
- **3 meses** tras pasar COVID o tras la vacuna
- **3 meses** tras proceso dental
- Parar la medicación tipo AAS, anticoagulantes (si se puede)
- **Parar los suplementos:**
 - **Gingseng**
 - **Gingko biloba**
 - **Omegas**
 - **Licorice**

Efectos adversos con ácido hialurónico



- El ácido hialurónico es un material muy seguro, con baja tasa de efectos adversos
- Lo más frecuente 33% fueron las reacciones de hipersensibilidad retardada

- Hyaluronic acid fillers were associated with an extremely low rate of AEs, ranging from 1 to 4 AEs per 10,000 procedures
- Chandawarkar AA, Provenzano DJ, Rad AN, Sherber NS. Learning curves: historical trends of FDA-reported adverse events for dermal fillers. *Cutis*. 2018;102(2):E20-E23. PMID: 30235374.
- 580 reports / 195 (33%) were Delayed hypersensitivity reactions: Non-inflammatory and inflammatory nodules. Juvederm Vycross and Restylene have the higher rates of AE – nodules, lips+, NLF +
- Cohen JL, Hicks J, Nogueira A, Lane V, Andriopoulos B. Postmarket Safety Surveillance of Delayed Complications for Recent FDA-Approved Hyaluronic Acid Dermal Fillers. *Dermatol Surg*. 2022 Feb 1;48(2):220-224. doi: 10.1097/DSS.0000000000003350.

Tratamiento de complicaciones de material de relleno

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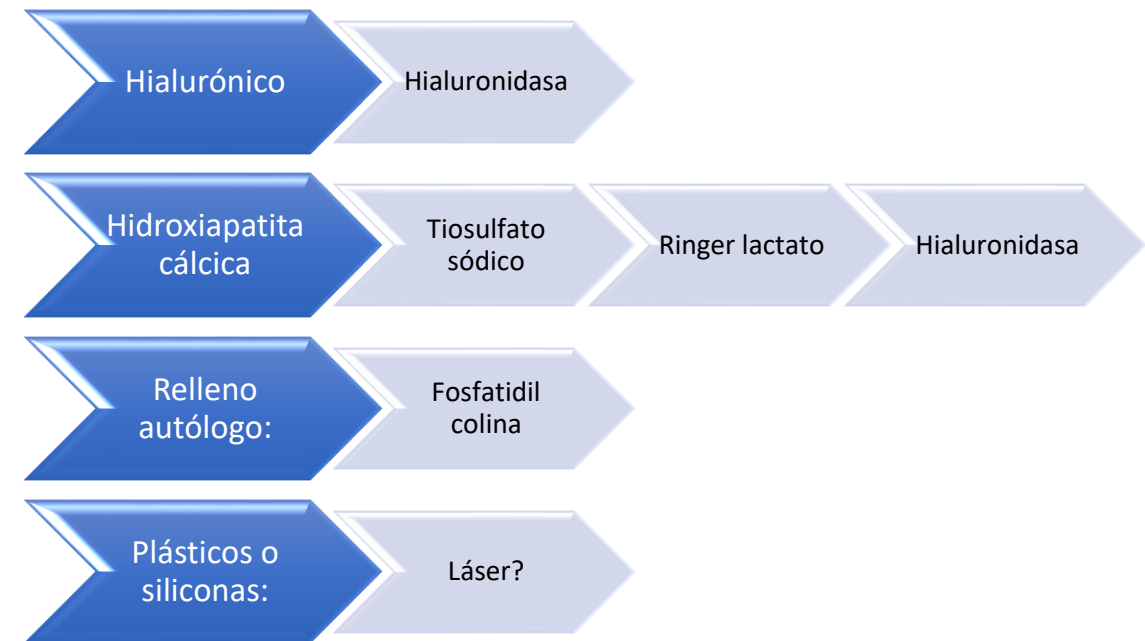


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VARIABLES IN A PROCEDURE COMPLICATION DOCTOR

- According to the FDA, doctors who perform filler injections should be a Board certified Dermatologist or Plastic surgeon
- Currently, we know this is an issue among the world, there are nurses, general physicians, aestheticians, dentists who are applying fillers, without any regulations and control



Salud mental de los pacientes de Dermatología

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- Se compararon 232 pacientes que acudieron por un procedimiento estético vs 200 pacientes que acudieron por un procedimiento no estético
 - 19% de los pacientes de estética tenían historia de patología en salud mental vs 4% de los pacientes no cosméticos
 - 18% de los pacientes de dermatología estética refieren tomar alguna medicación de tipo psiquiátrico vs 5% de los pacientes no cosméticos

Sarwer DB, Zarville HA, LaRossa D, Bartlett SP, Chang B, Low DW, Whitaker LA. Mental health histories and psychiatric medication usage among persons who sought cosmetic Surgery. *Plast Reconstr Surg.* 2004 Dec;114(7):1927-33; discussion 1934-5. doi: 10.1097/01.prs.0000142999.86432.1f. PMID: 15577370.

Salud mental de los pacientes de Dermatología

Recomendaciones

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- Always screen your patients before doing any procedure.
- Let the patient tell his story and see what emotions he/she evokes in you.
- Inquire about driving forces/circumstances.
- Assess emotional and cognitive maturity.
- Understand cross cultural differences.
- Beware of doctor shoppers.
- Be assertive and know your abilities and limitations.
- Don't be afraid to refer.

Recommendation



- Siempre hacer screening a los pacientes
- Ver qué historia cuenta y qué nos evoca
- Preguntar **cuál es el motivo por el que quiere tratarse**
- Valorar la madurez emocional y cognitiva
- Entender diferencias culturales
- Cuidado con los **“doctor shoppers”**
- Ser asertivo y claro en tus conocimientos, habilidades y limitaciones
- No temer el referirlo a otro doctor



International Journal of
Dermatology



Report

“Fake news” in dermatology. Results from an observational, cross-sectional study

Álvaro Iglesias-Puzas MD ✉, Alberto Conde-Taboada PhD, Beatriz Aranegui-Arteaga PhD, Eduardo López-Bran PhD

First published: 23 October 2020 | <https://doi.org/10.1111/ijd.15254> | Citations: 16

Results: A total of 385 websites were included. About 44.7% of the shared content was rated as imprecise, 20% as confusing, and 35.3% as precise. The records classified as imprecise obtained a higher mean number of interactions ($P < 0.05$). No differences were found in terms of the level of certainty and the dermatosis studied, whereas they did exist in relation to their topic and origin ($P < 0.001$). Of the contents classified as imprecise, the most frequent topic and origin were "alternative medicines" and "individual opinions, articles not affiliated with health institutions, nor peer reviewed," respectively.

Salud mental de los dermatólogos

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'I Cry but No One Cares': Physician Burnout & Depression Report 2023

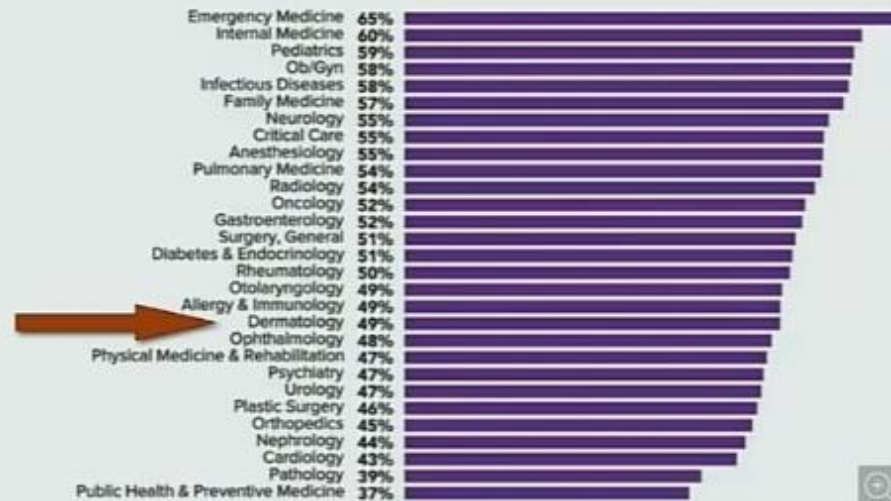
Leslie Kane, MA | January 27, 2023 | Contributor Information

Medscape

0 Read Comments 121

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Which Physicians Are Most Burned Out?





LASER

Con el patrocinio de:



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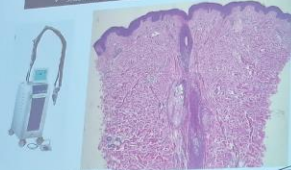
LÁSER 1726



Laser 1726 nm in Acne

WHAT 1726NM LASER TREATMENT W/COOLING SHOULD LOOK LIKE

- ✓ Superficial
- ✓ Gentle enough to enhance skin's natural healing capabilities at the red blood



Wavelength	1726 nm
Power	100 W
Fluence	Up to 30 J/cm ²
Pulse Duration	Up to 50 ms
Spot Size	3.0 mm (0.07 cm ²)
Treatment Scan Patterns	Single Spot; Hexagonal Array
Cooling	0° C to 5° C
Console Dimensions	24.5 x 19 x 38 in (0.62 x 0.48 x 0.97 m)
Console Weight	125 lbs (56.7 kg)

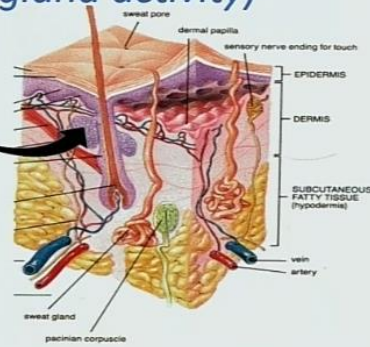
LASER PARA ACNÉ



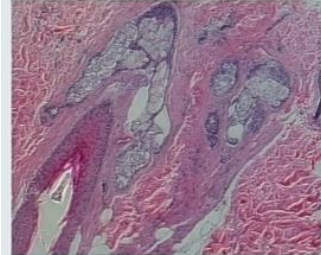
Lasers that directly target sebaceous glands
(*acne depends on sebaceous gland activity*)

Is selective photothermolysis
of sebaceous glands possible,
(similar to laser hair removal)?

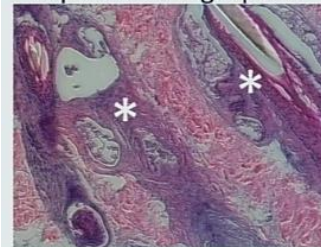
What wavelength(s)?



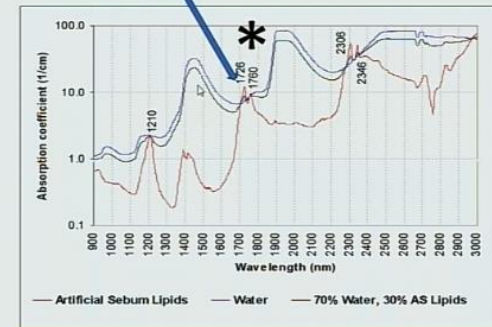
Control (human scalp)



Exposed to single pulse



1726 nm, ~125 ms, ~80 J/cm²



Infrared Absorption by **Water** vs. **Sebum**

Sakamoto FH, et al Selective photothermolysis to target sebaceous glands: theoretical estimation of parameters and preliminary results using a free electron laser. Lasers Surg Med 2012; 44(2):175-83

Targets large sebaceous glands

First clinical study summary

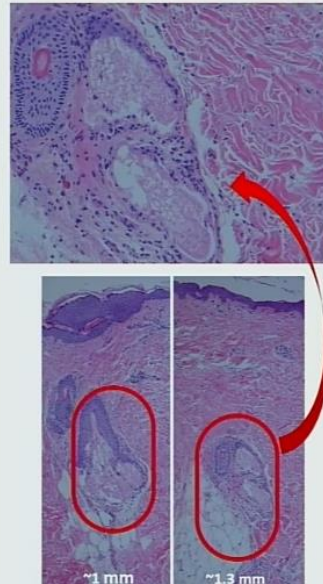
(n=12, moderate to severe acne, 3 treatments)

- All subjects responded to treatment
- 90% Inflammatory Lesion Count Reduction
- 73% Reduction in 2 treatments
- Improvement appears to be permanent (2 years)

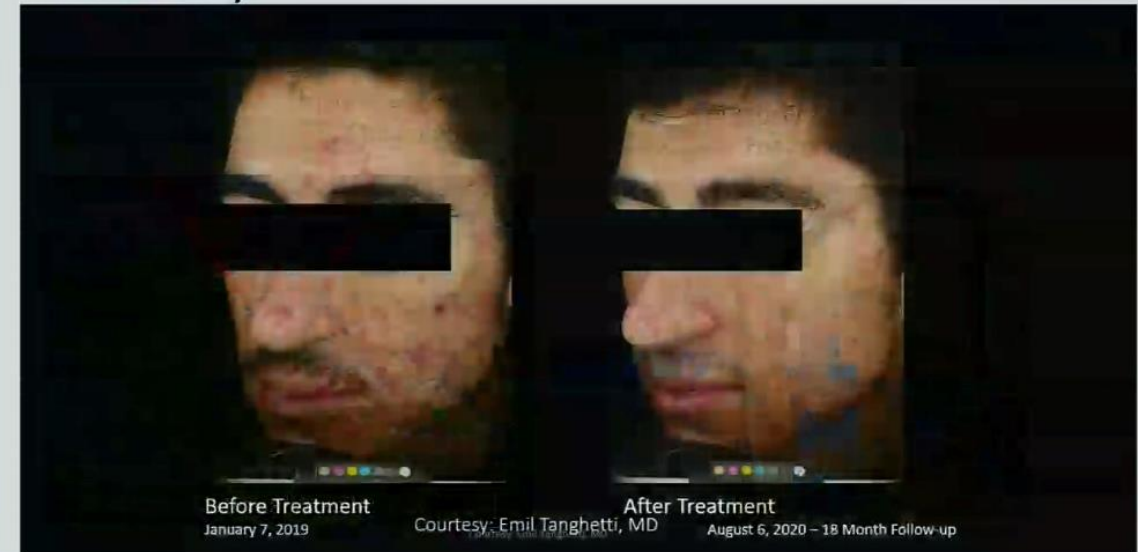
Pivotal clinical study (FDA) summary

(n=104, 57% female, 16-40 years old, 3 treatments)

- Similar results, with high confidence ($p < 0.001$)
- 78% Reduction of Inflammatory lesions
- Surprising 25% Reduction of comedones



Durability





Start of Tx



3 Months Post Tx



2 Years Post Tx



Courtesy: Emil Tanghetti, MD



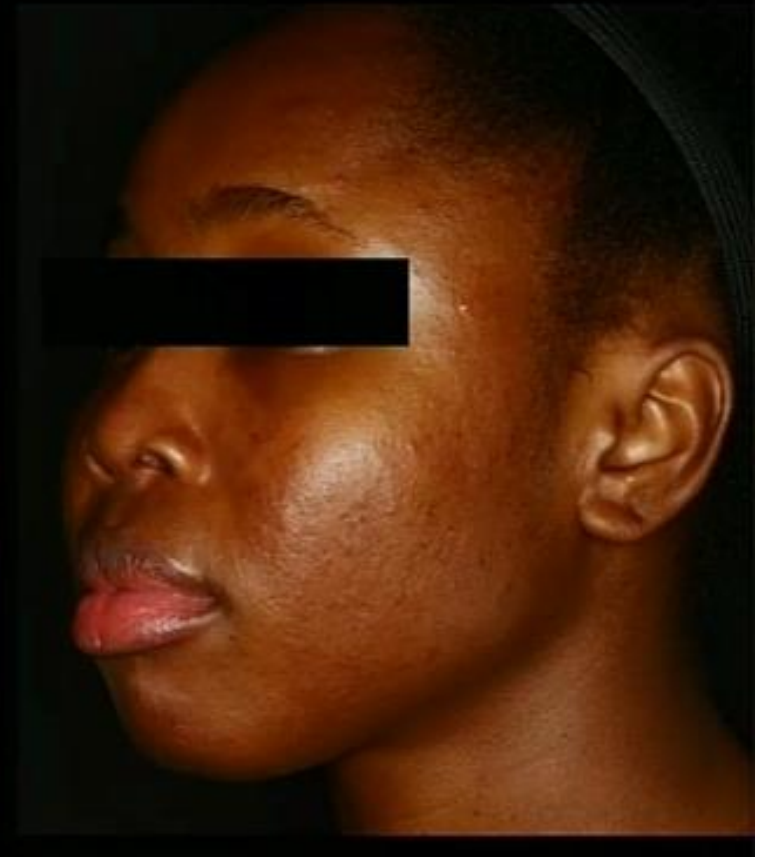
Start of Tx



6 Months Post Tx



2 Years Post Tx



Courtesy: Roy Geronemus, MD

LASER 1726



¿LÁSER PARA NEUROFIBROMATOSIS?

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Type I Neurofibromatosis – can a laser help?

- The most common disease due to a single gene (neurofibromin).
- Large (>350 kb) gene → GTPase-activating protein that regulates Ras
- ~ 1/2000 people, half spontaneous, the other half inherited.
- Children are born looking normal, except for some CALM & freckles.
- Standard treatment for early skin tumors: **nothing (neglect)**



**CAN WE STOP
THIS PROCESS ?**



¿LÁSER PARA NEUROFIBROMATOSIS?

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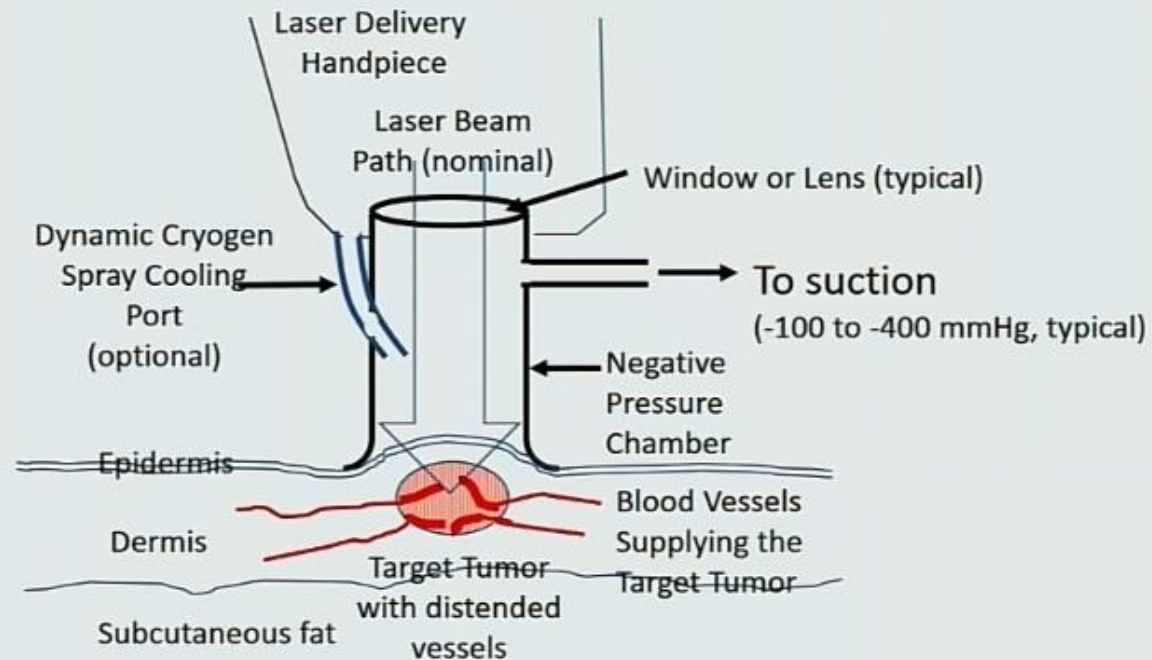


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A simple idea that worked well

- engorge the target vessels using gentle suction
- deliver high-fluence alexandrite (755 nm) pulse → infarction



¿LÁSER PARA NEUROFIBROMATOSIS?

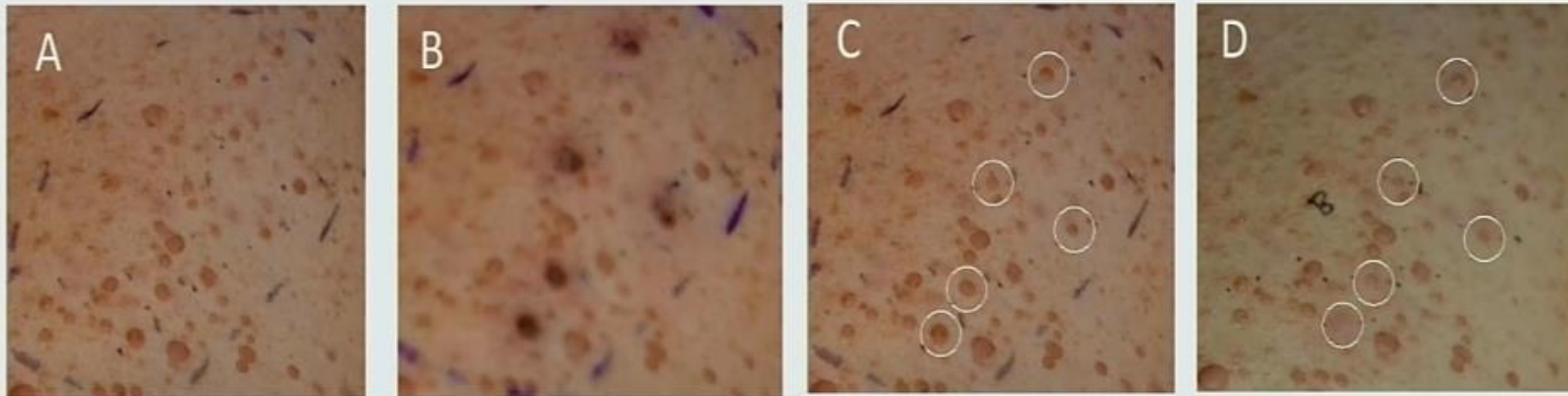
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Alexandrite laser with suction-assist to engorge tumor target vessels.



(A) Before treatment. (B) Immediate response after treatment to 755 nm, 3 ms pulse, 100 J/cm², 8 mm exposure, showing darkening due to photocoagulation of tumor target blood vessels. (C) Shows the pre-treatment photo with the 5 treated tumors marked (white circles). (D) Shows clinical clearance (in two) and reduction (in three) treated tumors, 3 months after treatment.



MUCHAS GRACIAS

Con el patrocinio de:



Almudena Nuño González

@almuderma

Iniciativa científica de:



La Academia Española de Dermatología y Venereología expresa su agradecimiento al patrocinador UCB, por su especial apoyo y contribución con la actividad formativa Highlights 2023.



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