20th Edition of Euroderm Excellence Training Program

November 28th - December 1st 2023
Vienna, Austria

NAIL DISEASES
DIAGNOSTIC & TREATMENT

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NAIL DISEASES
DIAGNOSTIC & TREATMENT

DISCLOSURES

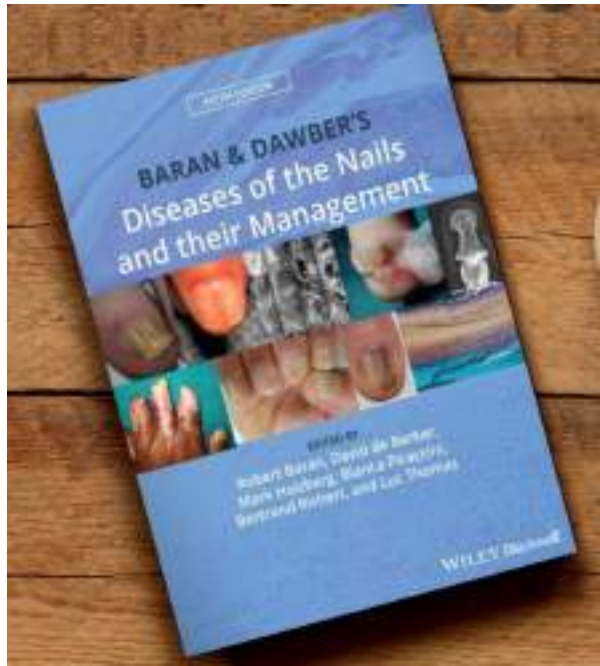
Consultant Honoraria: Abbvie, Pierre Fabre Dermatologie

Speaker Honoraria: Almirall, UCB, Pierre Fabre, Novartis

Investigator Grants: Novartis, Allergan, Abbvie, Janssen, Bailleul, Galderma, Polichem

INTRODUCTION

- Very vast domain, almost not taught
- Few experts, wide demand
- Nail intervene in fine movements, pruritus, cosmetics
- Aim of this course = open up your eyes to this few cm^2…
- Topics covered:
  1. Onychomycosis
  2. Nail Lichen planus
  3. Nail psoriasis
  4. Nail squamous cell carcinoma
  5. Nail melanoma



1. ONYCHOMYCOSIS

1. ONYCHOMYCOSIS

- Fungal infection at the nail unit
- **50% nail diseases**
- 2 to 5% global population
- **Toenails**(7x) >< fingers
- **Dermatophytes**, yeasts, moulds
  - 80% Dermatophytes (*Trichophyton rubrum* 50-75% cases)

Thomas J. Toenail onychomycosis: an important global disease burden. J Clin Pharm Ther. oct 2010;35(5):497-519.
Sigurgeirsson B, Baran R. The prevalence of onychomycosis in the global population - A literature study. J Eur Acad Dermatol Venereol JEADV. 28 nov 2013

DO YOU BELIEVE THAT A CLINICAL DIAGNOSIS OF ONYCHOMYCOSIS IS POSSIBLE ?

CHRONIC ECZEMA

PACHYONYCHIA CONGENITA

PSORIASIS

PSORIASIS

ONYCHOMYCOSIS

PSORIASIS

PSORIASIS

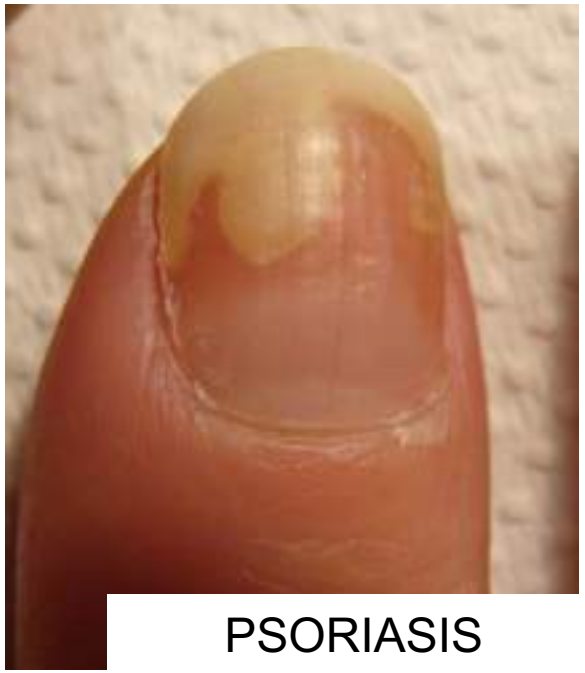
TRAUMA

KERATIN GRANULATIONS

ONYCHOMYCOSIS

ONYCHOMYCOSIS

TRAUMA



PSORIASIS

OM: CLINICAL FEATURES

NOTHING LOOKS MORE TO AN OM THAN WHAT IS NOT AN OM !

OM: DIAGNOSIS CONFIRMATION

CLINICAL SUSPICION

NAIL SAMPLING MANDATORY

Contamination, long treatments, side effects, costs,…

OM: DIAGNOSIS CONFIRMATION

HIGH QUALITY SAMPLING = KEYSTONE

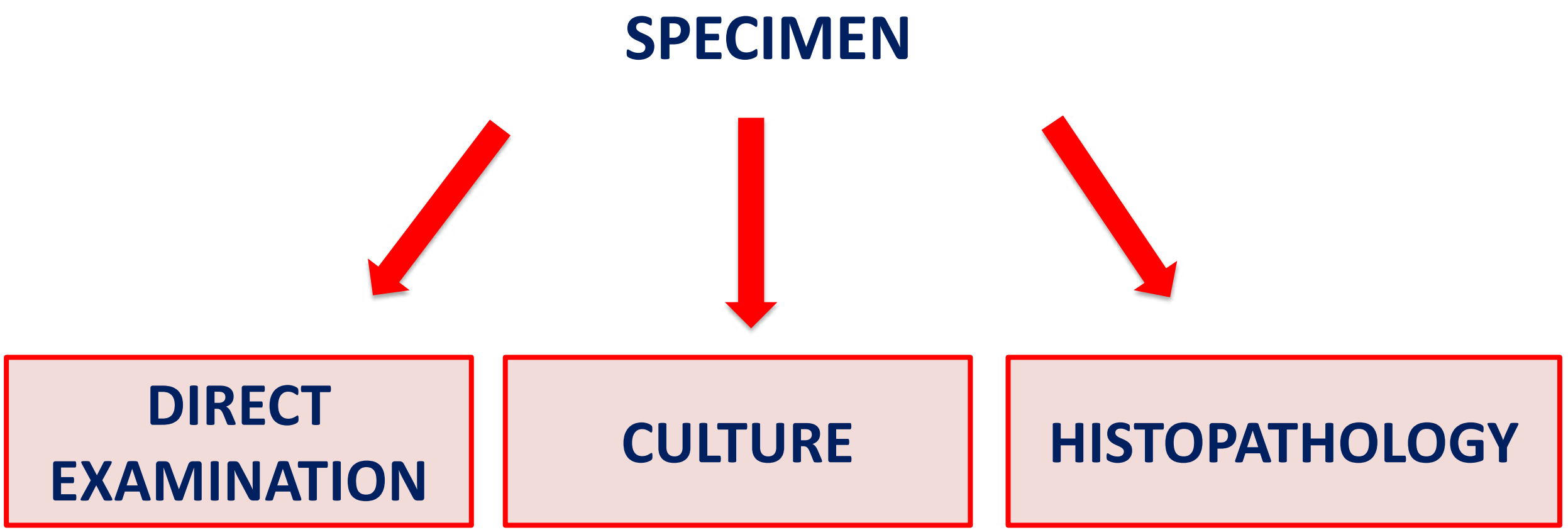
Performed by the physician himself
Sent ot a trustworthy mycology lab

OM: SAMPLING

Remove as much as possible of infected keratin up to the clinically healthy area

= less false negatives, dermatophytoma downsizing

OM: LAB CONFIRMATION



WHICH ONE IS THE BEST ??

DE, CULTURE, HISTOMYCOLOGY ???

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DOI: 10.1111/myc.13201

ORIGINAL ARTICLE

mycoses WILEY

Direct examination, histopathology and fungal culture for the diagnosis of onychomycosis: A retrospective, comparative study on 2245 specimens

Pauline Lecerf[1,2] | Salome Abdy[1,2] | Laura Vollono[3] | Ievgenia Pastushenko[4] | Bertrand Richert[1,2] | Josette André[1,2]

- **DIRECT EXAMINATION** : best for small-sized specimen
- **HISTOPATHOLOGY** : if the sample is wide enough and allows the 3 procedures, it's the most efficient.

OM: HOW TO INTERPRET LAB RESULTS ?

DIRECT EXAMINATION NEGATIVE

↓

NEGATIVE CULTURE

↓

NO ONYCHOMYCOSIS

(ensuring a high quality sampling)

OM: HOW TO INTERPRET LAB RESULTS ?

DIRECT EXAMINATION POSITIVE

↓

NEGATIVE CULTURE

↓

REPEAT SAMPLING

(+ Histopathology)

OM: HOW TO INTERPRET LAB RESULTS ?

DIRECT EXAMINATION POSITIVE **or** NEGATIVE

POSITIVE CULTURE

Dermatophyte

Trichophytum

Epidermophytum

TREAT

Yeast

Candida spp

TREAT
If numerous colonies

Mould

Acremonium, Scopulariopsis,

Scytalidium, Fusarium, Aspergillus,…

REPEAT SAMPLING

ARE ALL ONYCHOMYCOSIS

RESPONSIVE IN THE SAME WAY??

OM: ASSESS BAD PROGNOSIS FORMS

HARD TO TREAT VARIANTS

LATERAL DISEASE

YELLOW STREAKS

MOULDS

EXTENSIVE ONYCHOLYSIS

DERMATOPHYTOMA

OM: TREATMENT

RULE N°1

ERADICATE A MAXIMUM OF FUNGAL LOAD

OM: REDUCTION OF THE FUNGAL LOAD

MECHANICAL TECHNIQUES

CHEMICAL TECHNIQUES

SURGICAL TECHNIQUES

OM: TREATMENT

RULE N°2

COMBINE TOPICAL & SYSTEMIC TREATMENT

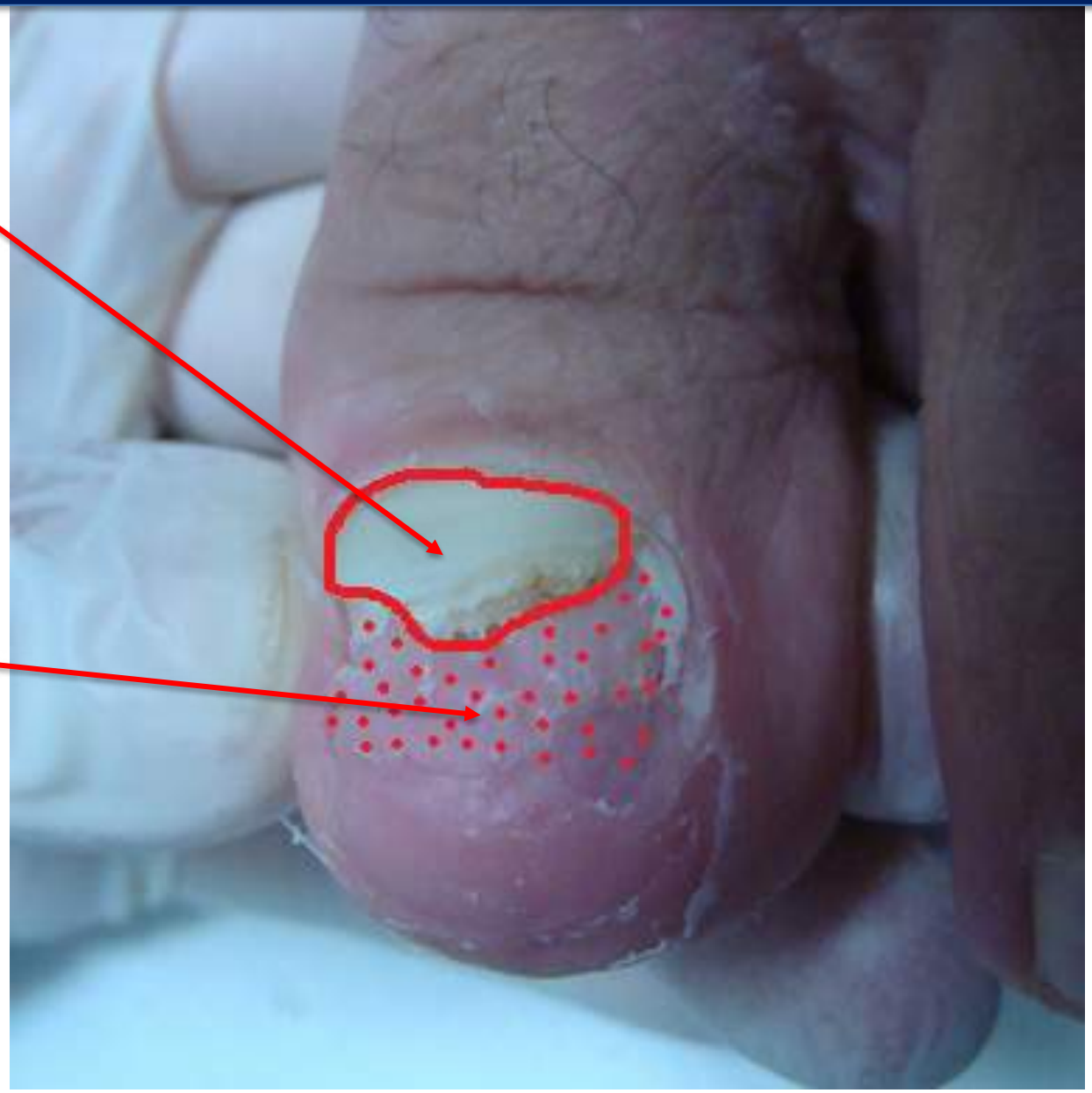
OM: TOPICAL TREATMENTS

NAIL PLATE (lacquer)

Ciclopirox 8% (1x/D)
Amorolfine 5% (1x/W)

NAIL BED (cream)

Terbinafine
Sulconazole
Bifonazole 1x/D
Miconazole
Ciclopirox



OM: SYSTEMIC TREATMENTS (dermatophytes)

Terbinafine was likely **more effective** than azoles in achieving clinical cure, with no difference in adverse events or recurrence rates.

Kreijkamp-Kaspers S, Hawke K, Guo L, et al. Oral antifungal medication for toenail onychomycosis. Cochrane Database Syst Rev. 2017;7

OM: SYSTEMIC TREATMENTS (dermatophytes)

Terbinafine

250 mg/day (fingers: 6 weeks; toes: 12 weeks)

- Empty stomach = full meal
- Dose adapted in children, liver or renal dysfunction
- Not during pregnancy (but no risk!) and breastfeeding
- Almost no drug interaction

Lipner SR, Scher RK. Onychomycosis: Clinical overview and diagnosis. J Am Acad Dermatol. 2019;80:835-851

OM: SYSTEMIC TREATMENTS (dermatophytes)

Itraconazole

Pulse: 400 mg/day - 1 w/month (fingers:2 months; toes: 3months)

- Empty stomach!
- Not during pregnancy, breastfeeding, 2 months before planning pregnancy
- Lots of interactions ++++ (Drugs.com → interaction checker)

Lipner SR, Scher RK. Onychomycosis: Clinical overview and diagnosis. J Am Acad Dermatol. 2019;80:835-851

OM: OFF-LABEL SYSTEMIC TREATMENTS
(dermatophytes)

Terbinafine Pulse Therapy

- 2 cycles 250mg/day (4 weeks on, 4 weeks off)
- 500 mg/day – 1 week/month for 4 consecutive months
- 500 mg/day - 1 week every 3 months, totalizing 4 treatments (=1 year)

Fluconazole (broadspectrum) once per week until complete healing !

Sprenger AB, Purim KSM, Sprenger F, Queiroz-Telles F. A Week of Oral Terbinafine Pulse Regimen Every Three Months to Treat all Dermatophyte Onychomycosis. J Fungi (Basel). 2019 Sep 4;5(3):82.

OM: TREATMENT FOLLOW-UP

- Inform patient about the **slow response** (12 months for a GTN to be replaced)
- **Check after 5 months** to confirm response
- Re-inforce the **pursuit of topical treatment and prevention**
- Check once last at 12 months (and re-sample ?)

OM: PREVENTION

- **Ventilated shoes,** limiting heat and humidity
- **Antifungal soap on feet 1/day**, **meticulous drying**
- Wearing washable or disposable shoes in the bathroom
- **Shoes disinfection** (UVC lamp – azoles spray)
- Terbinafine cream – **“Week-end therapy” or “toesday”**
- Plastic shower mat, flip flops
- Disinfection of shower floors 1x/D

TAKE HOME MESSAGE

- **On TOENAILS**, **think** first **onychomycosis** ; if mycology is negative, think then traumatic

- **On FINGERNAILS, think** first **psoriasis** or traumatic …. and at the very last onychomycosis !

OM: TAKE HOME MESSAGE

1. **Confirm** the diagnosis!
2. Assess **bad prognosis factors**
3. **Tailored** therapy
4. Adequate **follow-up**
5. **Prevention**

2. NAIL LICHEN PLANUS

NLP : INTRODUCTION

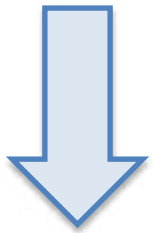
- **Fingernails: 94 %**
- Toenails: 53 %
- Twenty nail involvement: 10 %
- Monodactylic involvement: 11 %

Goettmann S, Zaraa I, Moulonguet I. Nail lichen planus: epidemiological,clinical, pathological, therapeutic and prognosis study of 67 cases. J Eur Acad Dermatol Venereol. 2012;26(10):1304-9.

NLP : CLINICAL FEATURES

depend on the location of the inflammatory process

MATRIX



NAIL BRITTLENESS

NLP : CLINICAL FEATURES

MATRIX INVOLVEMENT = NAIL BRITTLENESSS

1. **Longitudinal ridging +++** (90%)
2. Cracking
3. Lunular erythema (30%)
4. Nail plate thinning
5. Pterygium
6. Anonychia

NLP: MATRIX INVOLVEMENT

ONYCHORRHEXIS

NLP: MATRIX INVOLVEMENT

ONYCHORRHEXIS

NLP: MATRIX INVOLVEMENT

ONYCHORRHEXIS

NLP: MATRIX INVOLVEMENT

FISSURES

NLP: MATRIX INVOLVEMENT

FISSURES

NLP: MATRIX INVOLVEMENT

PLATE THINNING

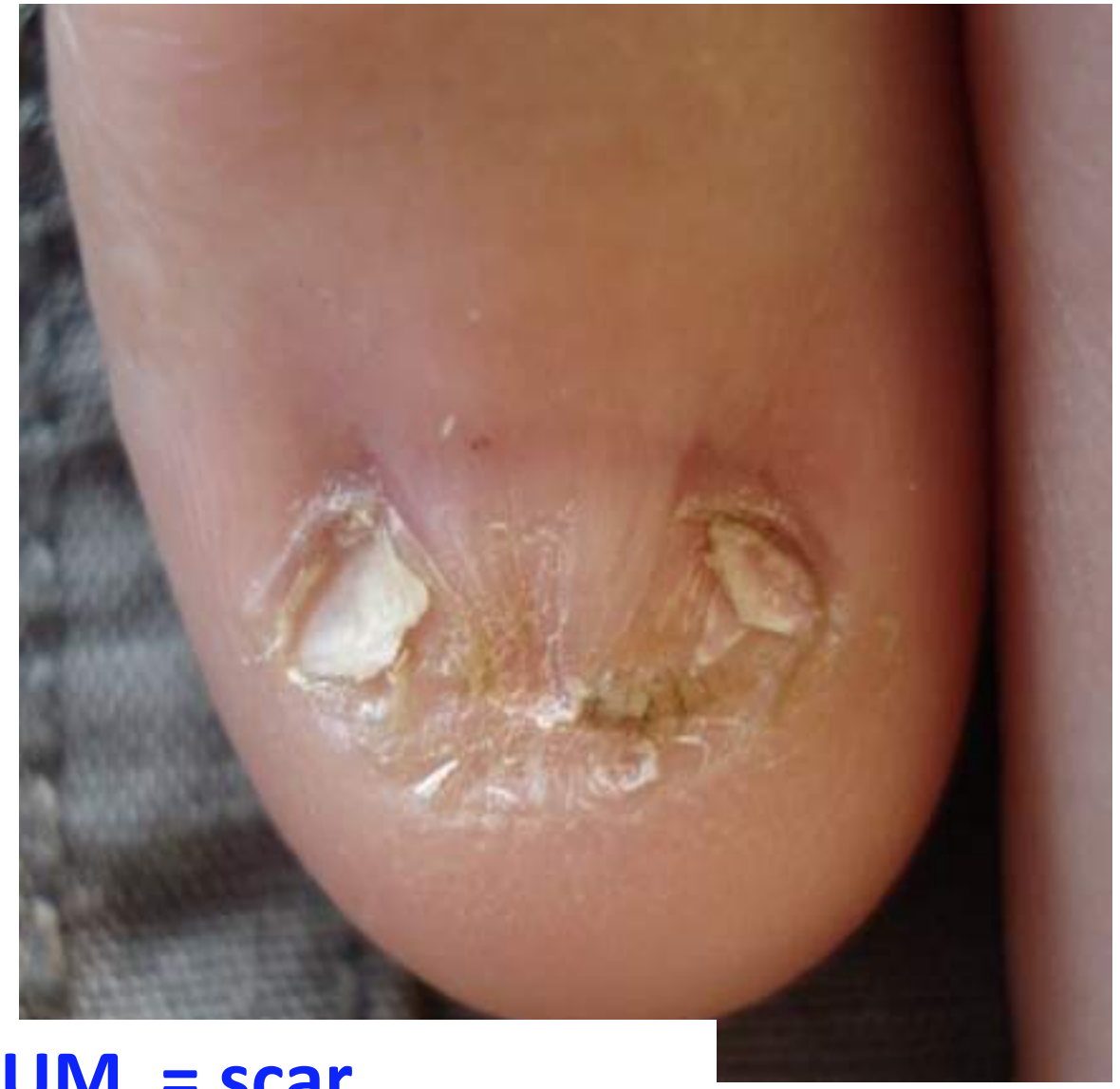
NLP: MATRIX INVOLVEMENT

PLATE THINNING

NLP: MATRIX INVOLVEMENT

PROGRESSIVE ATROPHY

NLP: MATRIX INVOLVEMENT



PTERYGIUM = scar

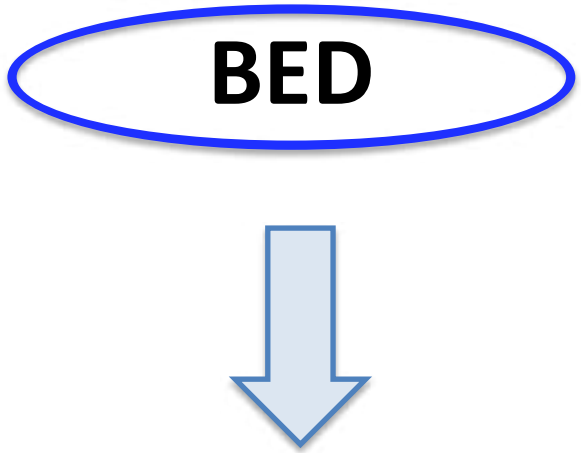
NLP: MATRIX INVOLVEMENT

Permanent ANONYCHIA

NLP : CLINICAL FEATURES

depend on the location of the inflammatory process

- *Isolated nail bed involvement : 10 %*
- *Nail bed and matrix involvement : 90 %*



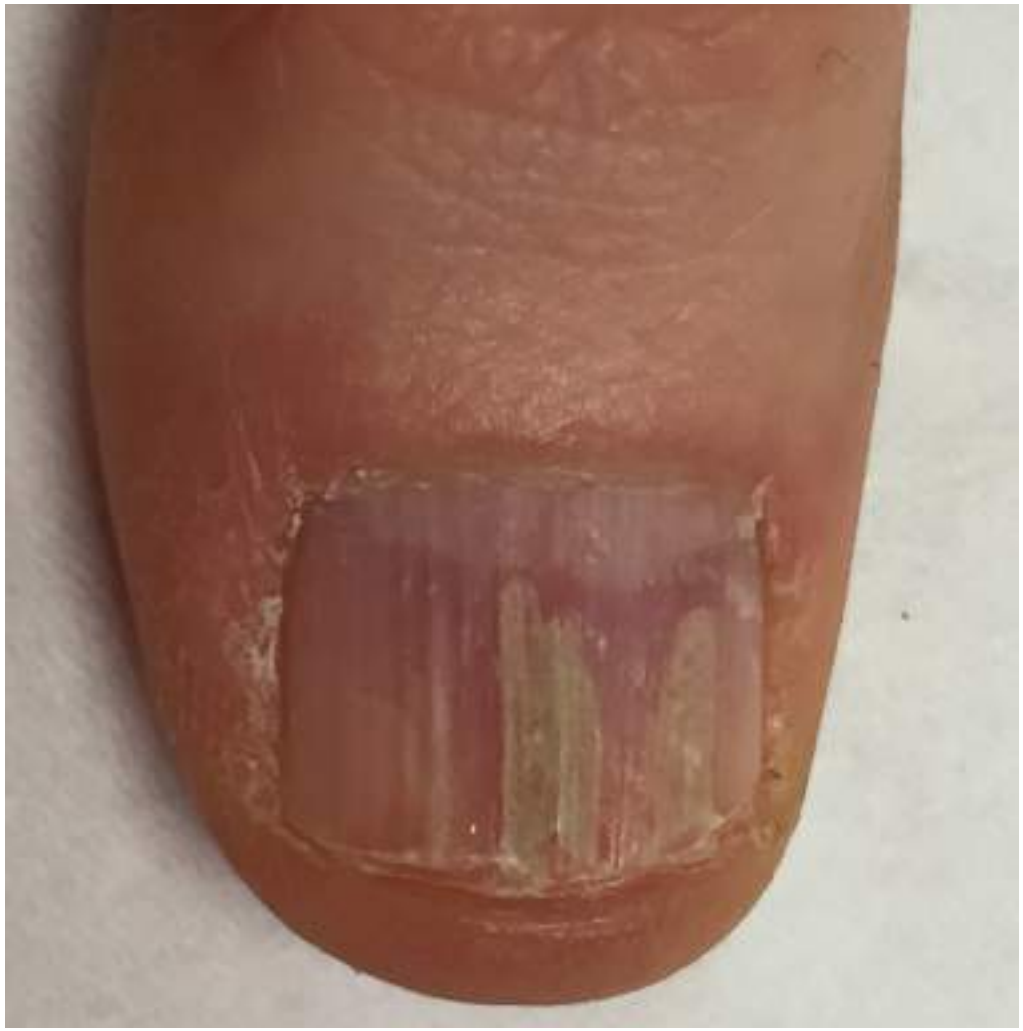
ONYCHOLYSIS, HYPERKERATOSIS

Goettmann S, Zaraa I, Moulonguet I. Nail lichen planus: epidemiological,clinical, pathological, therapeutic and prognosis study of 67 cases. J Eur AcadDermatol Venereol. 2012;26:1304-9.

NLP: NAIL BED INVOLVEMENT

SUB-UNGUAL HYPERKERATOSIS

NLP: NAIL BED INVOLVEMENT



ONYCHOLYSIS

NLP: DIAGNOSIS

- Clinical
- Histological confirmation before treatment

NLP: DIFFERENTIAL

AMYLOSIS

GVHD

DO YOU THINK THAT TREATMENT OF NAIL LICHEN PLANUS SHOULD BE AGGRESSIVE?

NLP: MANAGEMENT

- NLP treatment is **notoriously challenging** with high rates of failures and lots of relapses
- Irreversible scarring with functional and psychological issues
- **It's a real nail emergency !**



Lipner SR. Nail lichen planus: A true nail emergency. J Am Acad Dermatol. 2019;80(6):e177-e178.

NLP: MANAGEMENT

- Treatment should be **aggressive** to stop pejorative evolution

  - **Local steroids are inefficient!!**
  - **Systemic corticotherapy (intramuscular ++)**

NLP: MANAGEMENT

J Am Acad Dermatol
■ 2020

REVIEW

Isolated nail lichen planus: An expert consensus on treatment of the classical form

Matilde Iorizzo, MD, PhD,[a] Antonella Tosti, MD,[b] Michela Starace, MD, PhD,[c] Robert Baran, MD,[d] C. Ralph Daniel III, MD,[e,f] Nilton Di Chiacchio, MD, PhD,[g] Sophie Goettmann, MD,[h] Chander Grover, MD, DNB,[i] Eckart Haneke, MD, PhD,[j] Shari R. Lipner, MD, PhD,[k] Phoebe Rich, MD,[l] Bertrand Richert, MD, PhD,[m] Dimitris Rigopoulos, MD, PhD,[n] Adam I. Rubin, MD,[o] Martin Zaiac, MD,[p] and Bianca Maria Piraccini, MD, PhD[c]

Bellinzona and Bern, Switzerland; Miami, Florida; Bologna, Italy; Cannes and Paris, France; Jackson, Mississippi; Birmingham, Alabama; São Paulo, Brazil; Delhi, India; New York, New York; Portland, Oregon; Brussels, Belgium; Athens, Greece; and Philadelphia, Pennsylvania

NLP: MANAGEMENT

- **TRIAMCINOLONE ACETONIDE intralesional**

MATRIX injection

BED injection

< 3 NAILS INVOLVED

10 mg/mL
0.2 to 0.4 mL per nail

Iorizzo M, Tosti A, Starace M, Baran R, Daniel CR 3rd, Di Chiacchio N, Goettmann S, Grover C, Haneke E, Lipner SR, Rich P, Richert B, Rigopoulos D, Rubin AI, Zaiac M, Piraccini BM. Isolated nail lichen planus: An expert consensus on treatment of the classical form. J Am Acad Dermatol. 2020;83:1717-1723.

NLP: MANAGEMENT

INTRALESIONNAL INJECTIONS (4 months)

NLP: MANAGEMENT

- **TRIAMCINOLONE ACETONIDE intramuscular**

  (0.5 - 1 mg/kg) 1x /month

  (until half a healthy nail)

- Excellent tolerance:
  - No effect on growth in chidren
  - Very little side effect *vs* oral corticotherapy

Iorizzo M, Tosti A, Starace M, Baran R, Daniel CR 3rd, Di Chiacchio N, Goettmann S, Grover C, Haneke E, Lipner SR, Rich P, Richert B, Rigopoulos D, Rubin AI, Zaiac M, Piraccini BM. Isolated nail lichen planus: An expert consensus on treatment of the classical form. J Am Acad Dermatol. 2020;83:1717-1723.

NLP: MANAGEMENT

BEFORE & AFTER IM TRIAMCINOLONE (6 months)

NLP: MANAGEMENT

BEFORE & AFTER IM TRIAMCINOLONE (8 months)

NLP: MANAGEMENT

BEFORE & AFTER IM TRIAMCINOLONE (8 months)

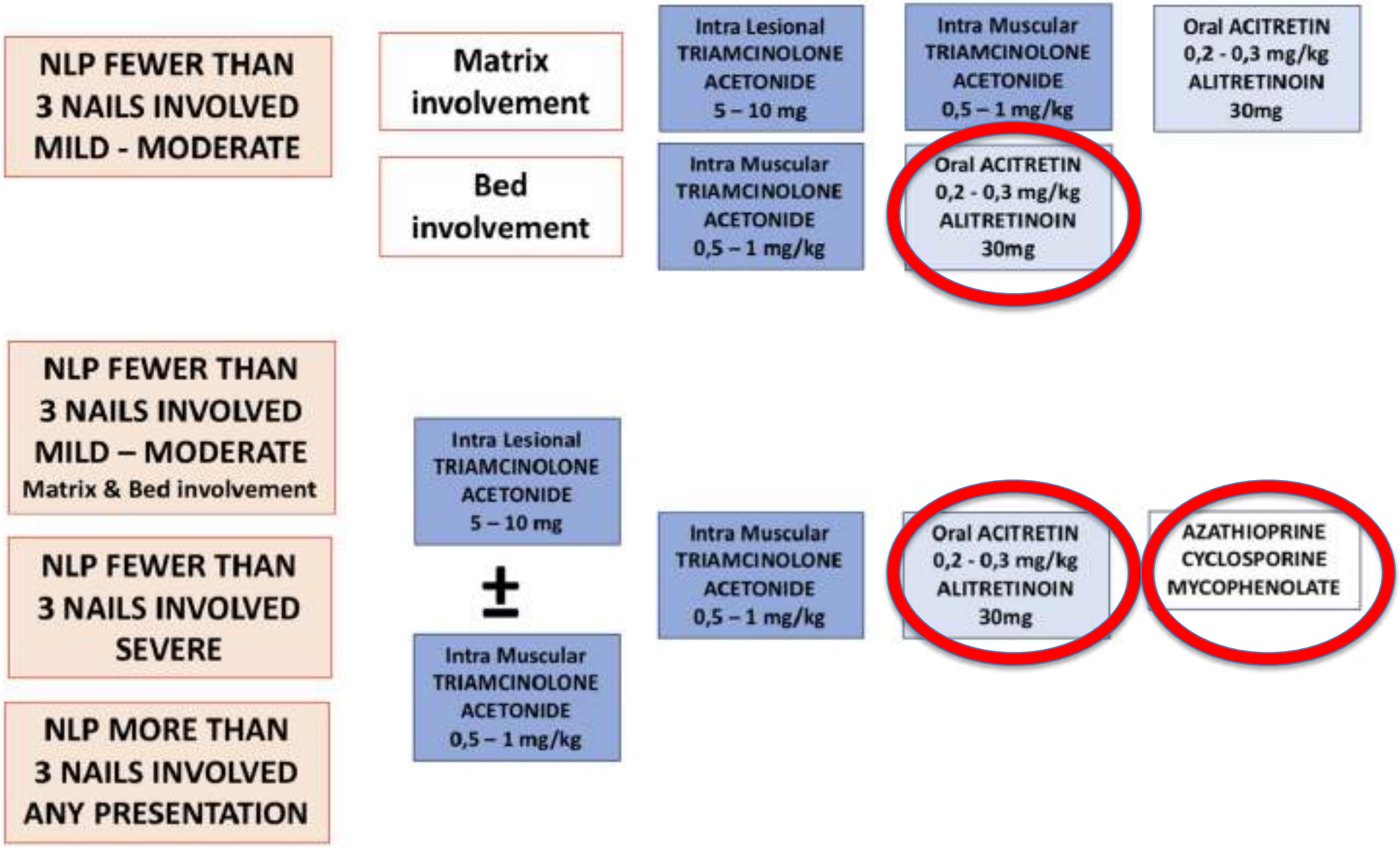
NLP: MANAGEMENT

BEFORE & AFTER IM TRIAMCINOLONE (6 months)

NLP: RESULTS

- 2/3 of patients respond to systemic corticotherapy
- 2/3 of those patients recur after one year
- **No predictive factor for non response or recurrence**

Goettmann S, Zaraa I, Moulonguet I. Nail lichen planus: epidemiological,clinical, pathological, therapeutic and prognosis study of 67 cases. J Eur Acad Dermatol Venereol. 2012;26:1304-9



Iorizzo M, Tosti A, Starace M, Baran R, Daniel CR 3rd, Di Chiacchio N, Goettmann S, Grover C, Haneke E, Lipner SR, Rich P, Richert B, Rigopoulos D, Rubin AI, Zaiac M, Piraccini BM. Isolated nail lichen planus: An expert consensus on treatment of the classical form. J Am Acad Dermatol. 2020;83:1717-1723.

NLP: ALITRETINOIN

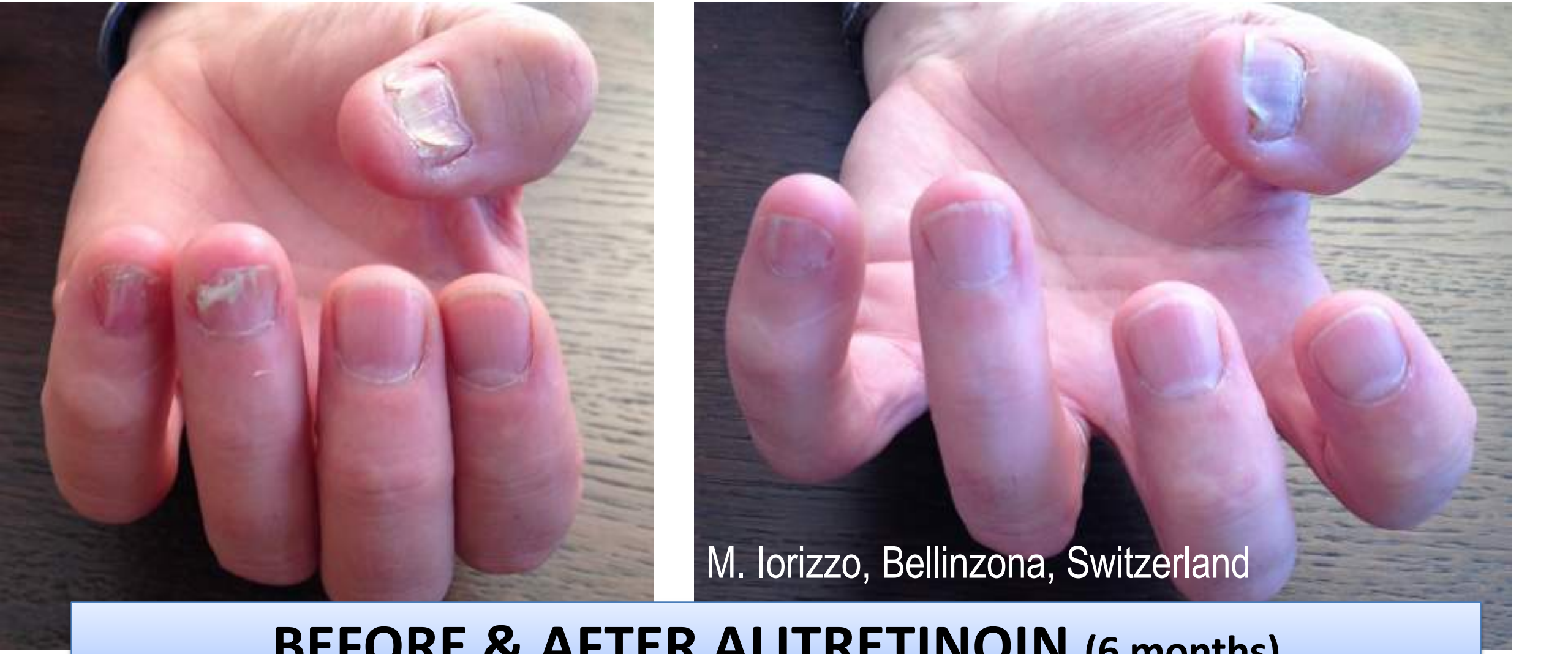
- **Alitretinoin 30mg/d**
- Anti inflammatory effect >> to other retinoids,
- Pan-agonist of the retinoid nuclear receptors (RAR & RXR)
- Better regulation of the keratinocyte differentiation

Iorizzo M. Nail lichen planus - a possible new indication for oral alitretinoin. J Eur Acad Dermatol Venereol. 2016;30(3):509-10.

Alsenaid A, Eder I, Ruzicka T, Braun-Falco M, Wolf R. Successful treatment of nail lichen planus with alitretinoin: report of 2 cases and review of the literature. Dermatology. 2014;229(4):293-6.

Pinter A, Pätzold S, Kaufmann R. Lichen planus of nails – successful treatment with Alitretinoin. J Dtsch Dermatol Ges. 2011;9(12):1033-4.

NLP: ALITRETINOIN



BEFORE & AFTER ALITRETINOIN (6 months)

NLP: THERAPEUTIC ALTERNATIVES

Azathioprine 100mg/J

Cyclosporin 3-5 mg/kg/J

Mycophenolate mofetil 2000mg/J

Hydroxychloroquine, methotrexate, biologics :
Not recommended

Tofacitinib = JAK 1 & JAK 3 inhibitors

NLP: IF EVERYTHING HAS FAILED

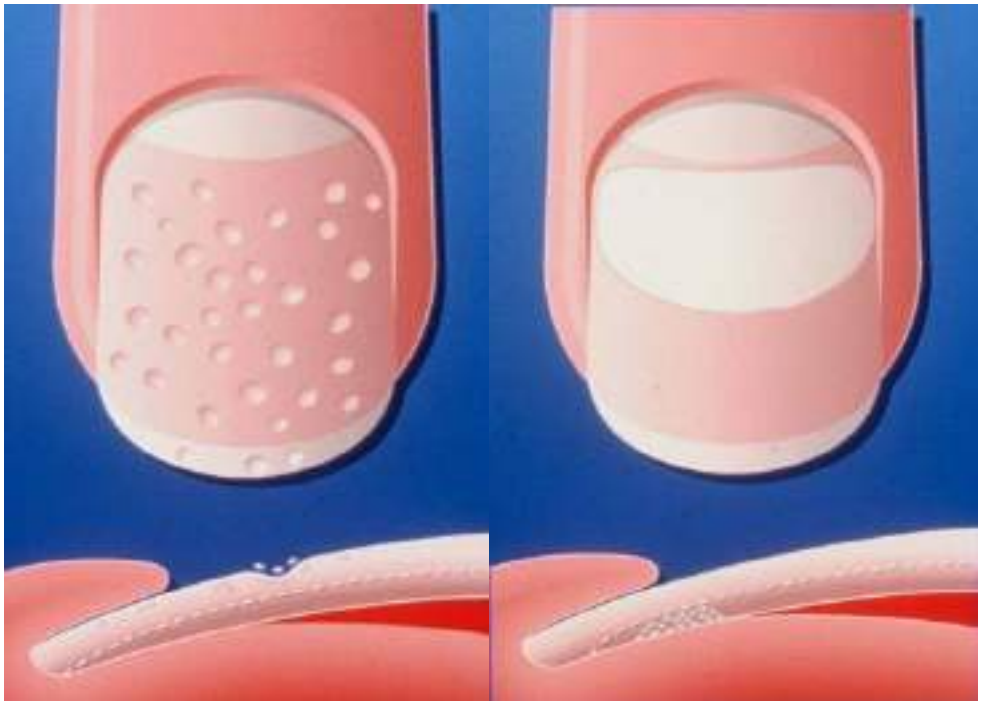
PROTHESES PILLET PARIS

NLP: TAKE HOME MESSAGE

1. **Confirm** the diagnosis!
2. **Be aggressive** (no local, no oral)
3. **Half** of them **will be cured**
4. **Not predictable**

3. NAIL PSORIASIS

NPso: CLINICAL FEATURES



PITTING
TRACHYONYCHIA

PROXIMAL LEUKONYCHIA
MOTTLED LUNULA

OIL SPOTS

ONYCHOLYSIS

SUBUNGUAL HK

MATRIX INVOLVEMENT

BED INVOLVEMENT

WHAT IS THE RISK FOR ARTHROPATIC PSORIASIS?

PsA RISK

Onycholysis is more frequently associated to arthropatic psoriasis than subungual hyperkeratosis and splinter hemorrhages

Love TJ, Gudjonsson JE, Valdimarsson H et al. Psoriatic arthritis and onycholysis: results from the cross-sectional Reykjavik psoriatic arthritis study. J Rheumatol. 2012;39:1441-4.

PsA RISK

- **No correlation** between skin or nail severity and arthropathic risk

Jones SM, Armas JB, Cohen MG, Lovell CR, Evison G, McHugh NJ. Psoriatic arthritis: outcome of disease subsets and relationship of joint disease to nail and skin disease. Br J Rheumatol. 1994;33:834-9.

- Risk = **duration of nail involvement**

Williamson L, Dalbeth N, Dockerty JL, Gee BC, Weatherall R, Wordsworth BP. Extended report: nail disease in psoriatic arthritis--clinically important,potentially treatable and often overlooked. Rheumatology (Oxford). 2004;43:790-4.

Scarpa R, Manguso F, Oriente A, Peluso R et al. Is the involvement of the distal interphalangeal joint in psoriatic patients related to nail psoriasis? Clin Rheumatol. 2004;23:27-30.

TO REMEMBER !!

Psoriasic patients with nail involvement will take more time to reach a PASI 75 than those without nail disease

NAIL INVOLVEMENT = NEGATIVE PRONOSTIC FACTOR

FOR CUTANEOUS RESPONSE TO BIOLOGICS

Bardazzi F, Lambertini M, Chessa MA, Magnano M, Patrizi A, Piraccini BM. Nail involvement as a negative prognostic factor in biological therapy for psoriasis: a retrospective study. J Eur Acad Dermatol Venereol. 2017 ;31:843-846.

NAIL PSORIASIS : WHEN TO TREAT?

ABSTENTION

CAMOUFLAGE with nail lacquer

TREAT ALL THE REST…

ONYCHOLYSIS

SUBUNGUAL HYPERKERATOSIS

NAIL PSORIASIS : HOW TO TREAT?

J Am Acad Dermatol
Volume 81, Number 1

Review

Recommendations for the definition, evaluation, and treatment of nail psoriasis in adult patients with no or mild skin psoriasis: A dermatologist and nail expert group consensus

Dimitrios Rigopoulos, MD, PhD,[a] Robert Baran, MD, PhD,[b] Soumiya Chiheb, MD, PhD,[c] Carlton Ralph Daniel III, MD, PhD,[d,e] Nilton Di Chiacchio, MD, PhD,[f] Stamatis Gregoriou, MD, PhD,[a] Chander Grover, MD, DNB,[g] Eckart Haneke, MD, PhD,[h,i] Matilde Iorizzo, MD, PhD,[j] Marcel Pasch, MD, PhD,[k] Bianca Maria Piraccini, MD, PhD,[l] Phoebe Rich, MD,[m] Bertrand Richert, MD, PhD,[n] Natalia Rompoti, MD,[a] Adam I. Rubin, MD,[o] Archana Singal, MD, FAMS,[g] Michela Starace, MD, PhD,[l] Antonella Tosti, MD, PhD,[p] Ioanna Triantafyllopoulou, MD,[q] and Martin Zaiac, MD[r]

Athens, Greece; Cannes, France; Casablanca, Morocco; Jackson, Mississippi; Birmingham, Alabama; São Paulo, Brazil; Delhi, India; Porto, Portugal; Bellinzona and Bern, Switzerland; Nijmegen, the Netherlands; Bologna, Italy; Portland, Oregon; Brussels, Belgium; Philadelphia, Pennsylvania; and Miami, Florida

TREATMENT WILL DEPEND ON:

- Location of the disease **within the nail unit**
- **Skin** involvement
- **Joint** involvement
- Occupational, social and **psychologic impact**
- Existence or not of **co-morbidities**

< 3 NAILS INVOLVED

MATRIX ONLY →
1. Abstention – Camouflage (♁ +++)
2. Intra-matricial injections of steroids
3. Vit D derivatives + steroids

BED ONLY
onycholysis →
Clipping of the detached nail plus :
1. Vit D derivatives + steroids
2. Tacrolimus

BED ONLY:
subungual HK →
1. Steroid injections <u>in the bed</u>
2. Vit D derivatives + steroids

MATRIX & BED →
1. Steroid injections <u>in matrix + bed</u>
2. Vit D derivatives + steroids

> 3 nails affected

LOCAL + SYSTEMIC or BIOLOGICAL TREATMENTS

Rigopoulos D, Baran R, Chiheb S, Daniel CR 3rd, Di Chiacchio N, Gregoriou S, Grover C, Haneke E, Iorizzo M, Pasch M, Piraccini BM, Rich P, Richert B, Rompoti N, Rubin AI, Singal A, Starace M, Tosti A, Triantafyllopoulou I, Zaiac M. Recommendations for the definition, evaluation, and treatment of nail psoriasis in adult patients with no or mild skin psoriasis: A dermatologist and nail expert group consensus. J Am Acad Dermatol. 2019 ;81(1):228-240.

ONYCHOLYSIS

CUT AWAY ALL DETACHED NAIL

COMPARISON TOPICAL TREATMENTS

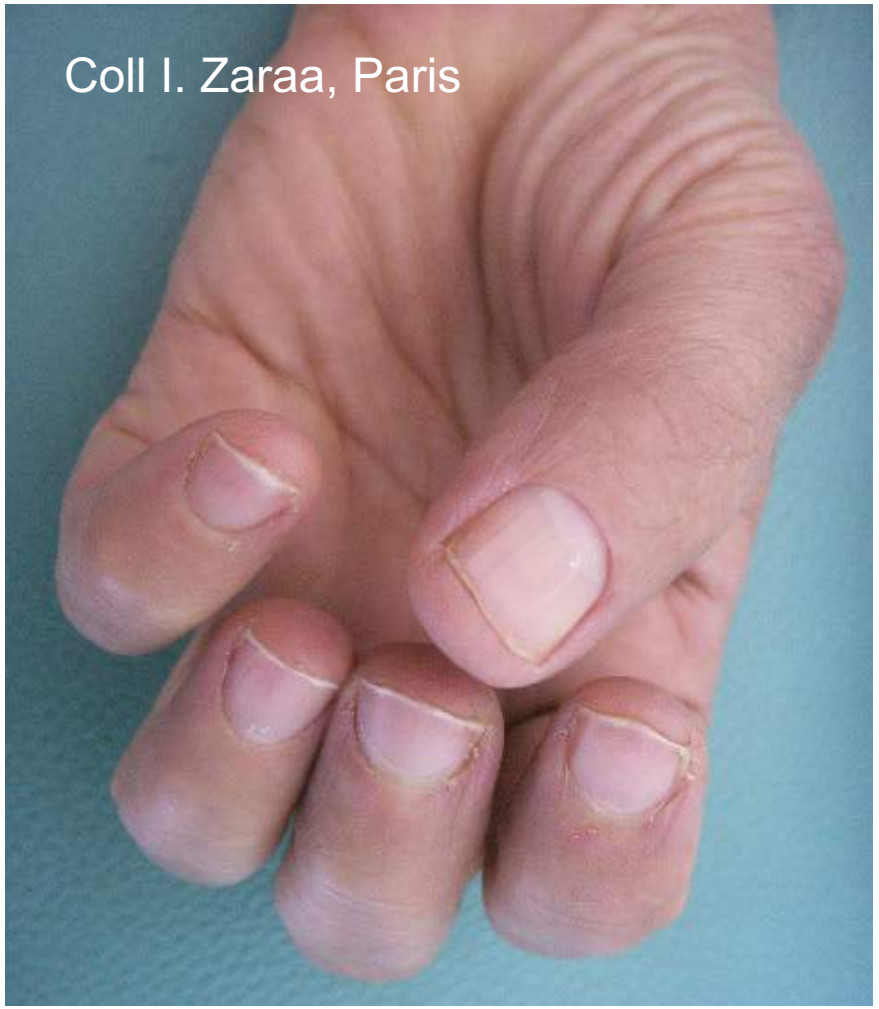
Topical steroids = tazarotene = Vit D analogues = calcipotriol + betamethasone

!! ALL WORK THE SAME !!

TOPICAL TREATMENTS

CLIPPING & CALCIPOTRIOL + BETAMETHASONE (6 months)

TOPICAL TREATMENTS

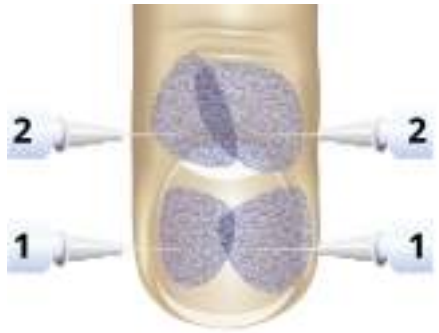


CLIPPING & CALCIPOTRIOL + BETAMETHASONE (6 months)

TOPICAL TREATMENTS

CLOBETASOL DIPROPIONATE (6 months)

INTRA-LESIONAL INJECTIONS



Triamcinolone 10mg/mL
0.1cc/quadrant
Every 3 to 8 weeks

de Berker DA, Lawrence CM. A simplified protocol of steroid injection for psoriatic nail dystrophy. Br J Dermatol. 1998;138(1):90-5.

< 3 NAILS INVOLVED

MATRIX ONLY →
1. Abstention – Camouflage (♁ +++)
2. Intra-matricial injections of steroids
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BED ONLY
onycholysis →
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BED ONLY:
subungual HK →
1. Steroid injections <u>in the bed</u>
2. Vit D derivatives + steroids

MATRIX & BED →
1. Steroid injections <u>in matrix + bed</u>
2. Vit D derivatives + steroids

> 3 nails affected → **LOCAL + SYSTEMIC or BIOLOGICAL TREATMENTS**

Rigopoulos D, Baran R, Chiheb S, Daniel CR 3rd, Di Chiacchio N, Gregoriou S, Grover C, Haneke E, Iorizzo M, Pasch M, Piraccini BM, Rich P, Richert B, Rompoti N, Rubin AI, Singal A, Starace M, Tosti A, Triantafyllopoulou I, Zaiac M. Recommendations for the definition, evaluation, and treatment of nail psoriasis in adult patients with no or mild skin psoriasis: A dermatologist and nail expert group consensus. J Am Acad Dermatol. 2019 ;81(1):228-240.

SYSTEMIC TREATMENT

- **METHOTREXATE**
  - METOP study – 17,5mg/week SC – evaluation after 2 months and augmentation up to 22,5mg/week if no improvement
  - ↓50% mean NAPSI at week 52
  - **Matrix involvement > bed involvement**

IF JOINT INVOLVEMENT +++

Amatore F, Villani AP, Tauber M, Viguier M, Guillot B. JEADV, 2019
Warren RB. Lancet, 2016

SYSTEMIC TREATMENT

- **ACITRETIN** : low dosage 0.2 – 0.3 mg/kg/d - ↓50 % mean NAPSI at 6 months
  Mainly for subungual hyperkeratosis ++

Tosti A, Ricotti C, Romanelli P, Cameli N, Piraccini BM. Evaluation of the efficacy of acitretin therapy for nail psoriasis. Arch Dermatol 2009; 145:269-271.
Ricceri F, Pescitelli L, Tripo L, Bassi A, Prignano F. Treatment of severe nail psoriasis with acitretin: an impressive therapeutic result. Dermatol Ther. 2013;26:77-8.

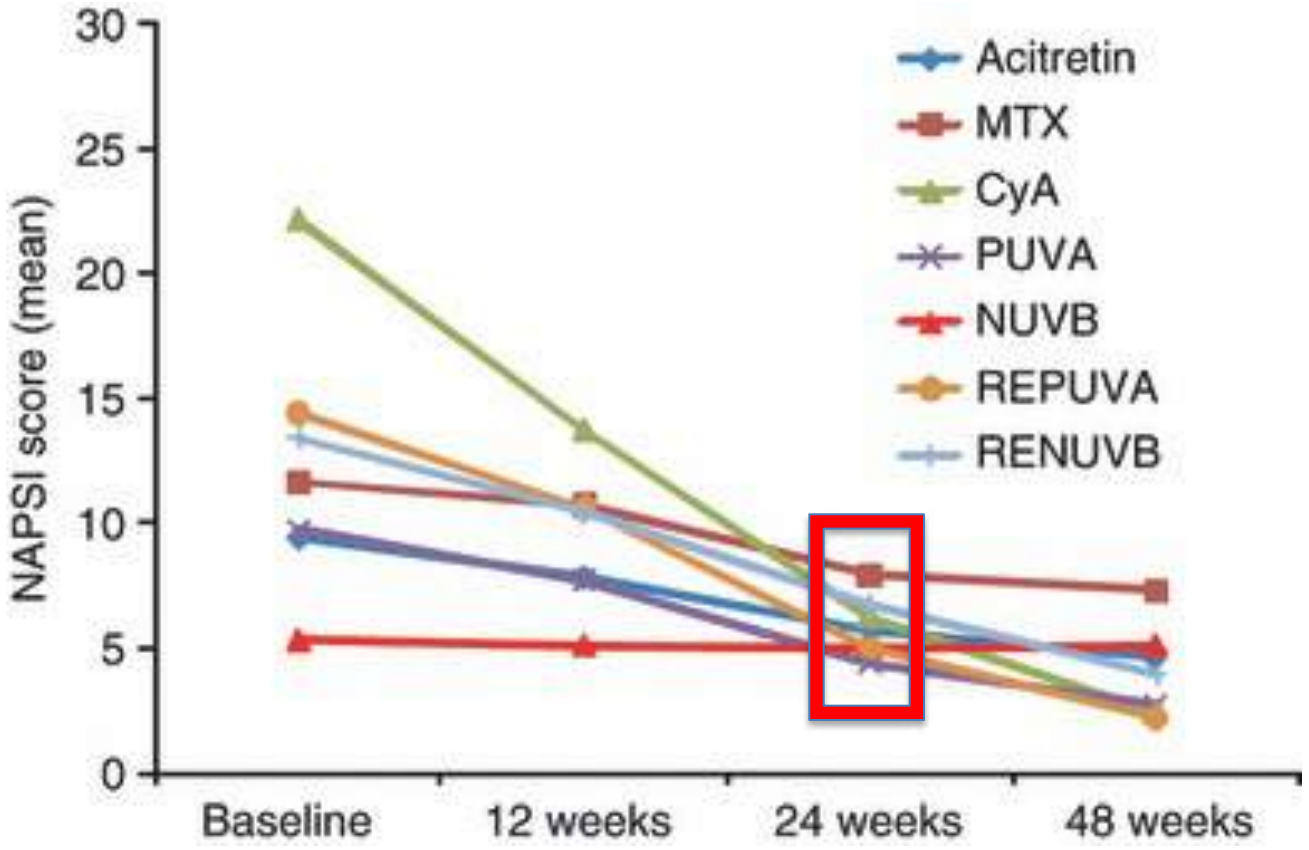
SYSTEMIC TREATMENT

- **CICLOSPORINE** : 3-5mg/kg/d

  Bed involvement > matrix involvement

Amatore F, Villani AP, Tauber M, Viguier M, Guillot B. JEADV, 2019
Warren RB. Lancet, 2016

COMPARISON SYSTEMIC TREATMENTS



ALL SIMILAR AT 24 WEEKS

CICLO THE FASTEST

Evolution NAPSI scores with classic treatments.

Sanchez-Regana M, Sola-Ortigosa J, Alsina-Gibert M et al. Nail psoriasis: a retrospective study on the effectiveness of systemic treatments (classical and biological therapy) JEADV 2011;25:579-586

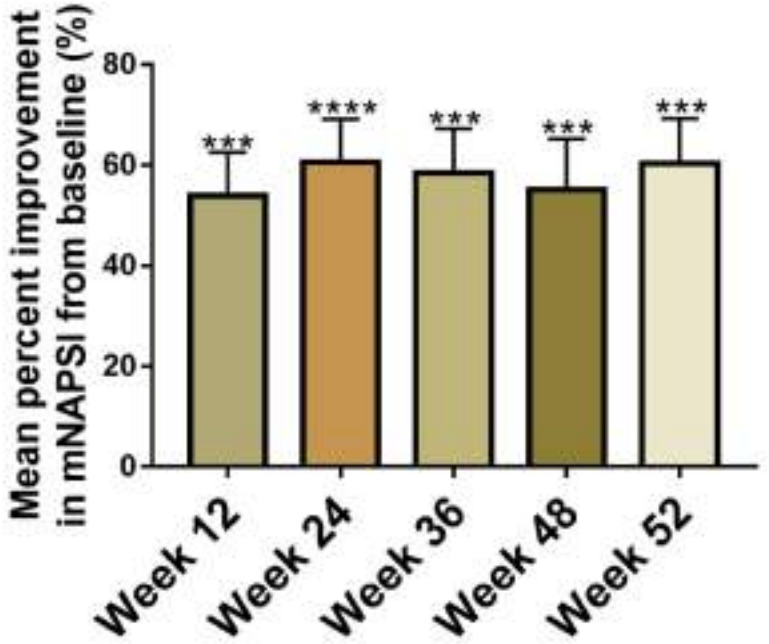
APREMILAST

Journal Pre-proof

Improvement of 11 patients with nail psoriasis with apremilast: results of an investigator-initiated open-label study

Allen S.W. Oak, MD, Hoang Ho-Pham, MD, Boni E. Elewski, MD

- 11 patients
- No placebo
- 30mg x 2/d – 52 weeks
- Improvement of mean mNAPSI by 64%



APREMILAST

Apremilast as a target therapy for nail psoriasis: a real-life observational study proving its efficacy in restoring the nail unit

C Lanna [1], G M Cesaroni [1], S Mazzilli [1], L Vollono [1], R Gaziano [2], D Marino [2], L Bianchi [1], E Campione [1]

- DLQI and NaPSI
- 15 patients
- Good and sustained results

Lanna C, Cesaroni GM, Mazzilli S, Vollono L, Gaziano R, Marino D, Bianchi L, Campione E. Apremilast as a target therapy for nail psoriasis: a real-life observational study proving its efficacy in restoring the nail unit. J Dermatolog Treat. 2022;33:1097-1101.

APREMILAST

APREMILAST :
Study ESTEEM 1 & 2

- 30mg/d
- NaPSI reduction 22-29 % w
- NaPSI reduction
- NaPSI eek 52

APRE

ients

PGA : very good improvement

APREMILAST PROMISING – LARGER STUDIES NEEDED

Augustin M, Radtke M, Schneider J, Pinter A, Wilsmann Theis D, Peter RU, et al. Real- world experience with apremilast: analysis of 250 patients from the APPRECIATE study with psoriasis in difficult-to-treat areas. Pre- sented at the 2019 AAD Annual Meeting; 2019 March 1–5. Washington, DC; 2019.

COMPARISON BIOLOGICAL TREATMENTS

Among the comparative studies, **none** has shown **any superiority of a biological agent**

Saraceno R, Pietroleonardo L, Mazzotta A, Zangrilli A, Bianchi L, Chimenti S. TNF-α antagonists and nail psoriasis: an open, 24-week, prospective cohort study in adult patients with psoriasis. Expert Opin Biol Ther. 2013;13:469-73.

Kyriakou A, Patsatsi A, Sotiriadis D. Anti-TNF agents and nail psoriasis: a single-center, retrospective, comparative study. J Dermatolog Treat. 2013;24:162-8.

Bardazzi F, Antonucci VA, Tengattini V, Odorici G, Balestri R, Patrizi A. A 36-week retrospective open trial comparing the efficacy of biological therapies in nail psoriasis. J Dtsch Dermatol Ges. 2013;11:1065-70.

Sanchez-Regana M, Sola-Ortigosa J, Alsina-Gibert M et al. Nail psoriasis: a retrospective study on the effectiveness of systemic treatments (classical and biological therapy) JEADV 2011;25:579-586

COMPARISON BIOLOGICAL TREATMENTS

Network meta-analysis comparing the efficacy of biologic treatments for achieving complete resolution of nail psoriasis

Kristian Reich, Curdin Conrad, Lars Erik Kristensen, Saxon D. Smith, Luis Puig, Phoebe Rich, Christophe Sapin, Thorsten Holzkaemper, Uffe Koppelhus & Christopher Schuster

Methods: A network meta-analysis (NMA) was conducted to indirectly compare the efficacy of six biologics in achieving complete resolution of NP at week 24–26 in patients with moderate-to-severe psoriasis and concomitant NP. Complete resolution of NP was defined as a score of zero on the Nail Psoriasis Severity Index (NAPSI), modified NAPSI (mNAPSI) or Physician's Global Assessment of Fingernails (PGA-F).

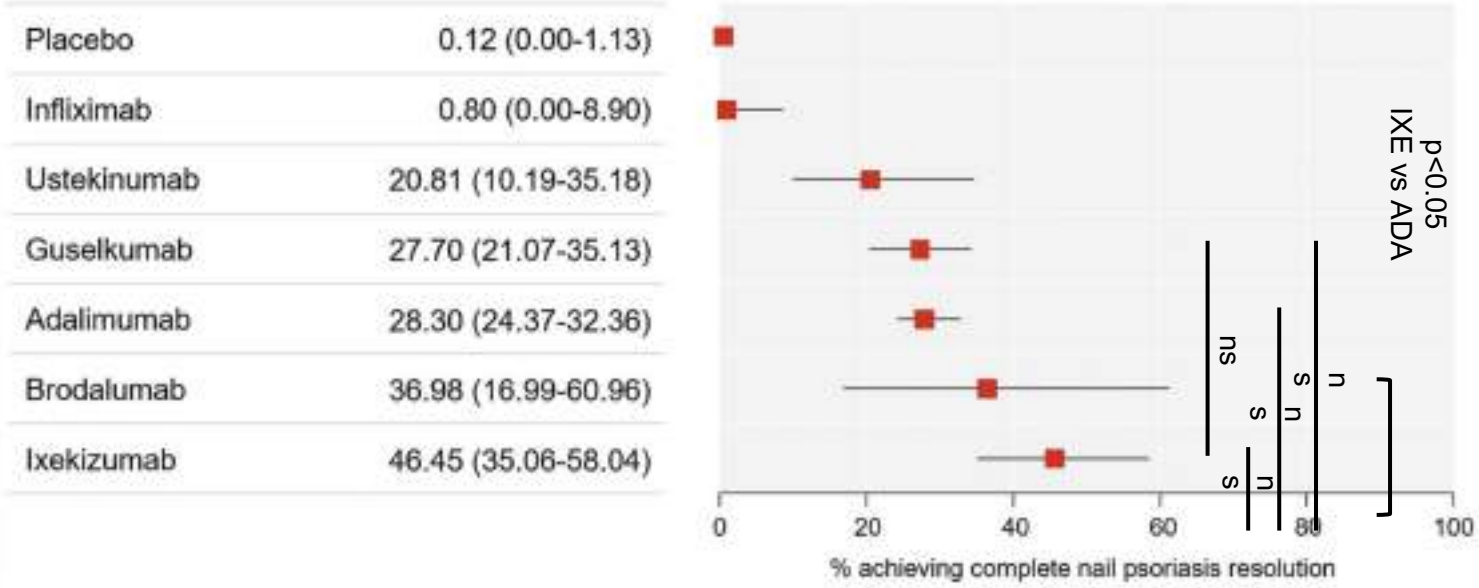


Figure 2. Forest plot of treatment differences (and 95% credibility intervals) for complete resolution of nail psoriasis (Nail Psoriasis Severity Index [NAPSI] = 0, modified NAPSI [mNAPSI] = 0, or Physician's Global Assessment of Fingernail Psoriasis [PGA-F] = 0) at weeks 24–26.

- Bias +++
- Very variable population (severity very variable, with and without PsA…)

Reich K, Conrad C, Kristensen L. *et al*. Network meta-analysis comparing the efficacy of biologic treatments for achieving complete resolution of nail psoriasis. J Dermatolog Treat. 2021 Mar 1:1-9

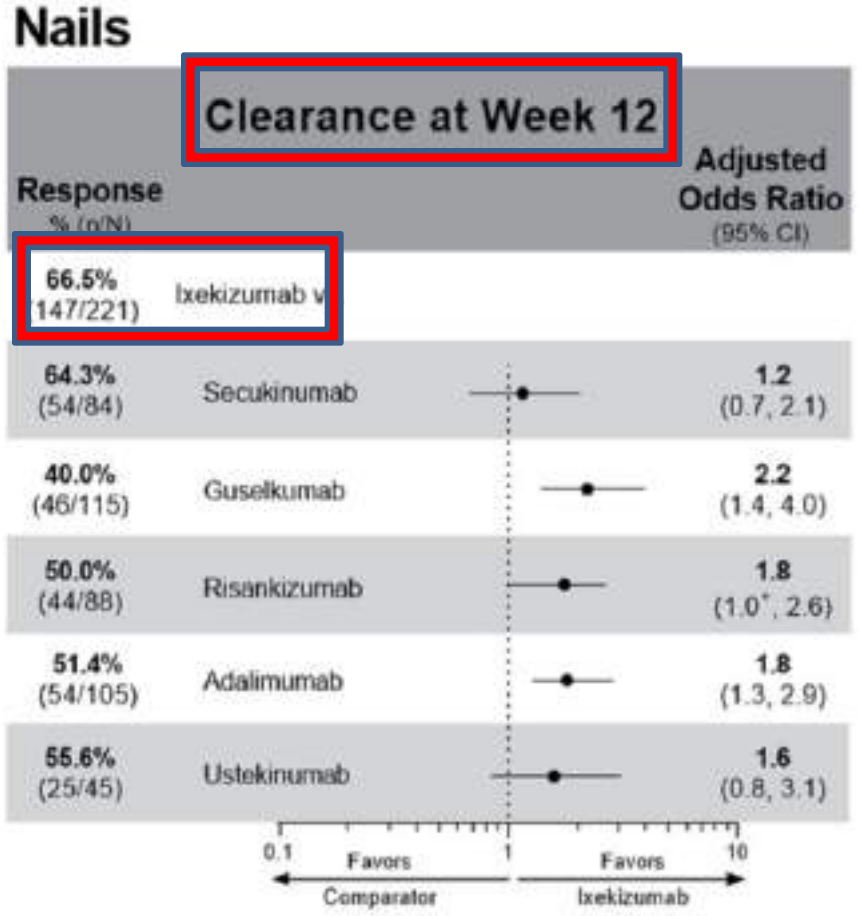
COMPARISON BIOLOGICAL TREATMENTS

Comparative effectiveness of biologics for patients with moderate-to-severe psoriasis and special area involvement: week 12 results from the observational Psoriasis Study of Health Outcomes (PSoHO)

Stefano Piaserico[1*], Elisabeth Riedl[2], Lev Pavlovsky[3], Ronald B. Vender[4], Can Mert[5], Nithi Tangsirisap[6], Natalie Haustrup[6], Gaia Gallo[6], Christopher Schuster[2,6] and Patrick M. Brunner[7]

[1]Dermatology Unit, Department of Medicine, University of Padova, Padua, Italy, [2]Department of Dermatology, Medical University of Vienna, Vienna, Austria, [3]Department of Dermatology, Rabin Medical Center, Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel, [4]Dermatrials Research Inc. and Venderm Consulting, Hamilton, ON, Canada, [5]HaaPACS GmbH, Schriesheim, Germany, [6]Eli Lilly and Company, Indianapolis, IN, United States, [7]Department of Dermatology, Icahn School of Medicine at Mount Sinai, New York, NY, United States

frontiers | Frontiers in Medicine



Piaserico S, Riedl E, Pavlovsky L et al. Comparative effectiveness of biologics for patients with moderate-to-severe psoriasis and special area involvement: week 12 results from the observational Psoriasis Study of Health Outcomes (PSoHO). Front Med (Lausanne). 2023;10:1185523.

WHICH BIOLOGIC?

Choice relies on the **presence or absence of PsA**

=> anti-TNFα or anti-IL17 first intention if joint involvement

FUTURE / NEW DRUGS?

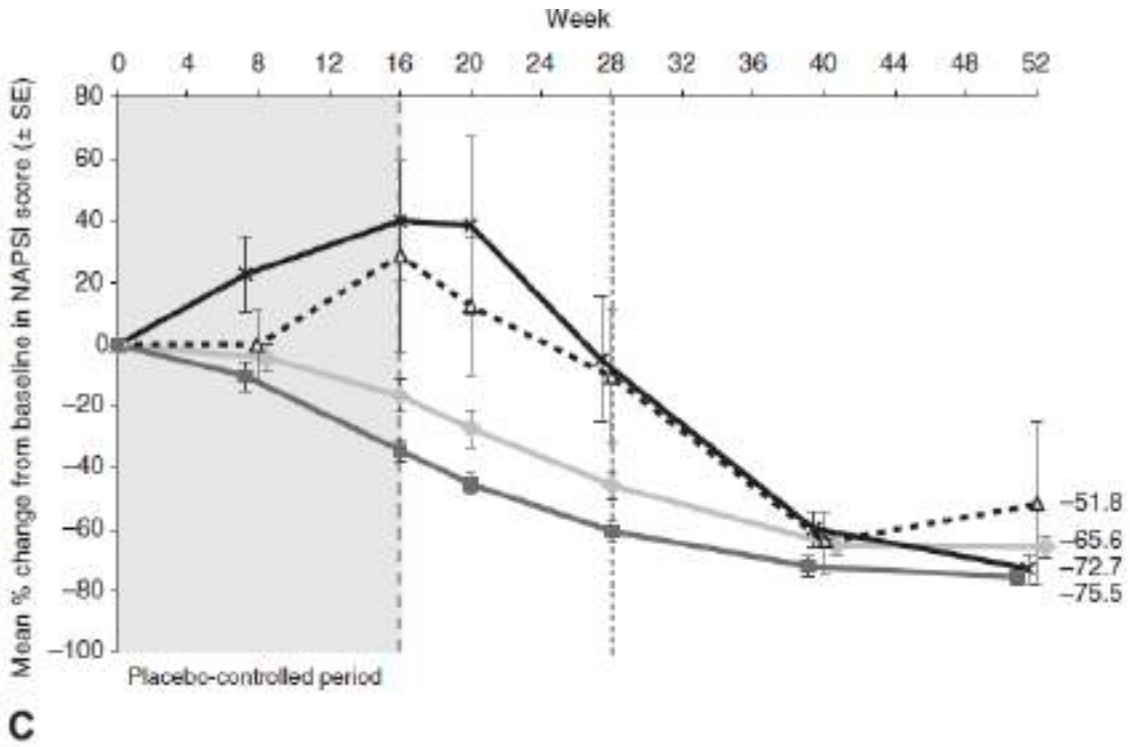
Efficacy of tofacitinib for the treatment of nail psoriasis: Two 52-week, randomized, controlled phase 3 studies in patients with moderate-to-severe plaque psoriasis

Joseph F. Merola, MD, MMSc,[a] Boni Elewski, MD,[b] Svitlana Tatulych, MD,[c] Shuping Lan, MA, MPH,[c] Anna Tallman, PharmD,[d] and Mandeep Kaur, MD, MS[c]

J Am Acad Dermatol
July 2017

487 TOFA 5mg + 486 TOFA 10 + 233 pbo
µ-NAPSI ≈ 27; µ no. nails ≈ 7,3

Fin (semaine 52) TOFA 5 **ΔNAPSI -66%**
Fin (semaine 52) TOFA 10 **ΔNAPSI -75%**



DEUCRAVACITINIB – Oral TYK2 inhibitor

- Efficacy on nail psoriasis evaluated in subset analyses of POETYK PSO-1 & PSO-2 trials
- Over 52 weeks **superiority of deucravacitinib** vs placebo **vs apremilast** in patients with **skin psoriasis**.

- **Patients with nail psoriasis (moderate to severe = PGA ≥3) at baseline achieved PGA-F 0/1 starting from week 16.**

- **Deucravacitinib has been well tolerated**: no reports of serious infections, thromboembolic events, or laboratory abnormalities, which are a concern among other JAK inhibitors.

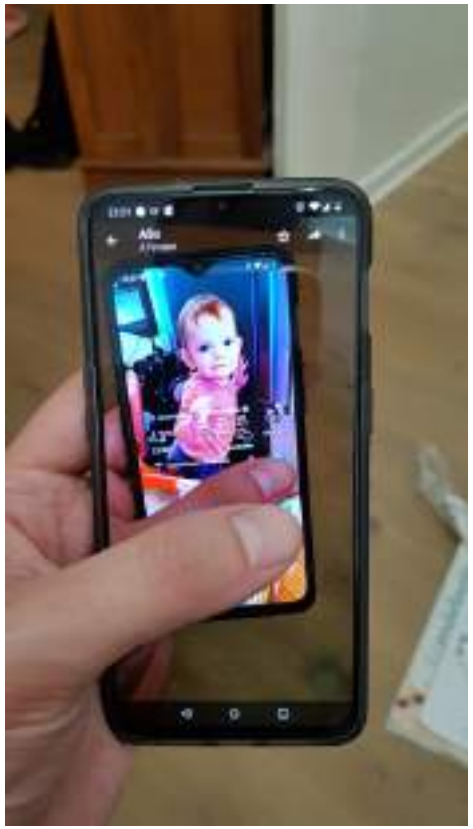
- **Efficacy and tolerability of deucravacitinib 6 mg daily in patients with nail psoriasis is under investigation**

Linaberry M, et al. Deucravacitinib versus placebo and apremilast in moderate to severe plaque psoriasis: efficacy and safety results from the 52-week, randomized, double-blinded, placebo-controlled phase 3 POETYK PSO-1 trial. J Am Acad Dermatol 2022:S0190-9622(22)02256-3

Strober B, et al. Deucravacitinib versus placebo and apremilast in moderate to severe plaque psoriasis: efficacy and safety results from the 52-week, randomized, double-blinded, phase 3 POETYK PSO-2 trial. J Am Acad Dermatol 2022:S0190-9622(22)02643-3

NAIL PROTECTION = AVOIDING KOEBNERISATION

- Wear **gloves** during wet work
  (including peeling fruits and vegetables...)
- Keep **nails short**
- Do not trim the cuticule
- Do not clean under the free edge
- **Acrylic nails should be forbidden**
- Nail lacquer should be encouraged !



Megna M et al. JEADV, 2018

NAIL PSORIASIS: TO REMEMBER

- Treatment is **long**
- Should be **tailored** for the patient
- High risk of **PsA associated with onycholysis**
- All topical work the same
- All biological work the same
- **Prevention of Koebner** phenomenon

4. NAIL SCC

NAIL SCC : AGE / GENDER

- **Male predominance** (2:1)
- Mean age : **60 years old** (50 to 59 yo)

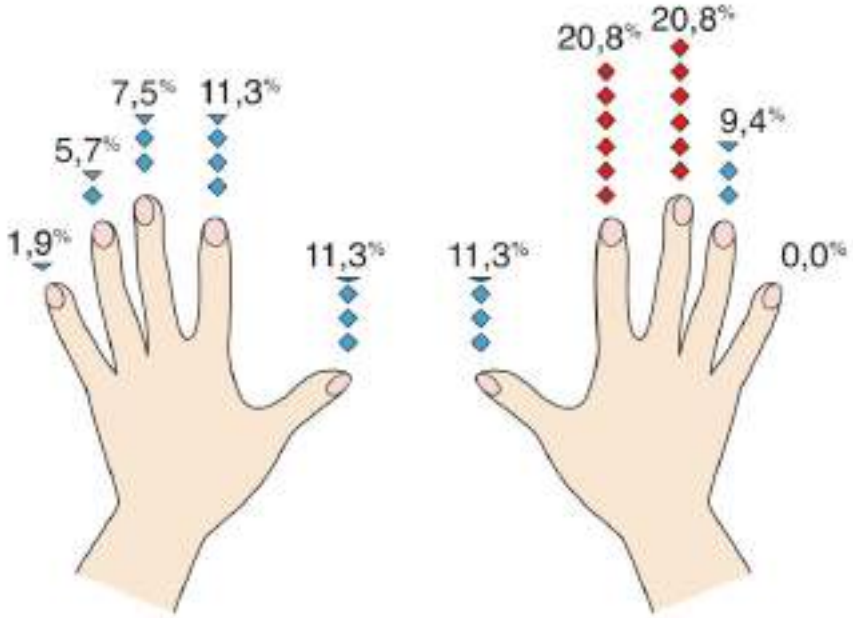
Lecerf P, Richert B, Theunis A, André J. A retrospective study of squamous cell carcinoma of the nail unit diagnosed in a Belgian general hospital over a 15-year period. J Am Acad Dermatol. 2013;69:253-261

Riddel C, Rashid R, Thomas V. Ungual and periungual human papillomavirus-associated squamous cell carcinoma: a review. *J. Am. Acad. Dermatol.* 2011;64(6):1147-1153.

Dalle S, Depape L, Phan A, et al. Squamous cell carcinoma of the nail apparatus: clinicopathological study of 35 cases. *Br. J. Dermatol.* 2007;156(5):871-874.

NAIL SCC : LOCATION

- **Finger (98%)** > Toe
- Hands
  - Right: 62,3%
  - Left: 37,7%



Lecerf P, Richert B, Theunis A, André J. A retrospective study of squamous cell carcinoma of the nail unit diagnosed in a Belgian general hospital over a 15-year period. J Am Acad Dermatol. 2013;69:253-261

Shimizu A, Kuriyama Y, Hasegawa M, Tamura A, Ishikawa O. Nail squamous cell carcinoma: A hidden high-risk human papillomavirus reservoir for sexually transmitted infections. J Am Acad Dermatol. 2019 ;81:1358-1370.

NAIL SCC : LOCATION

- **Nail bed: 57.4%**
- Periungual area (folds and grooves): 31.5%
- Both (nail bed and periungual area): 11.1%

Lecerf P, Richert B, Theunis A, André J. A retrospective study of squamous cell carcinoma of the nail unit diagnosed in belgian general hospital over a 15 year period. JAAD, 2013;69:253-61.

NAIL SCC : HISTORY

- Trauma
- Chronic sun exposure
- Arsenic exposure
- Radiation
- Burns
- Genodermatoses
- Tobacco
- Immunosuppression
- HPV infection

RISK FACTORS for the development of both types of NUSCC

Ormerod E, de Berker D. Nail unit squamous cell carcinoma in people with immunosuppression. Br J Dermatol. 2015;173(3):701- 712.

NAIL SCC : HISTORY

- Trauma
- Chronic sun exposure
- Arsenic exposure
- Radiation
- Burns
- Genodermatoses
- Tobacco
- **Immunosuppression**
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NAIL SCC : HISTORY

- Trauma
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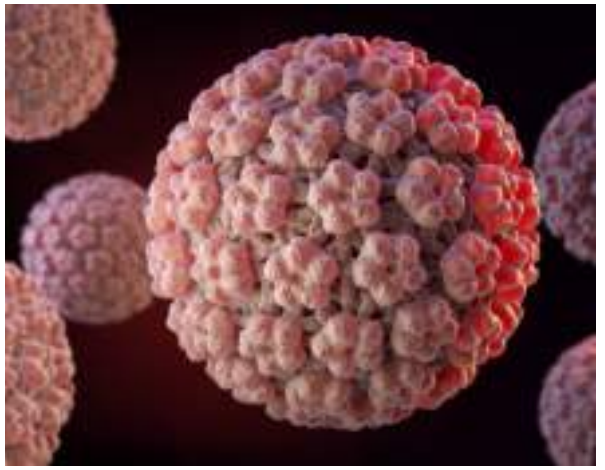
- Radiation
- Burns
- Genodermatoses
- Tobacco
- Immunosuppression
- **HPV infection**

RISK FACTORS for the development of both types of NUSCC

Riddel C, Rashid R, Thomas V. Ungual and periungual human papillomavirus-associated squamous cell carcinoma: a review. J Am Acad Dermatol. 2011;64:1147-53

NAIL SCC : HISTORY

- Increasing evidence of the **role of HPV** in the pathogenesis of NUSCC
- HPV subtypes were detected in NUSCC (**HPV 16 ++**)
- **HPV associated** NUSCC from **25 to 60%**



- Riddel C, Rashid R, Thomas V. Ungual and periungual human papillomavirus-associated squamous cell carcinoma: a review. J Am Acad Dermatol. 2011;64:1147-53.
- Alam M, Caldwell JB, Eliezri YD. Human papillomavirus-associated digital squamous cell carcinoma: literature review and report of 21 new cases. J Am Acad Dermatol. 2003;48:385-93.
- Sass U, André J, Stene JJ, Noel JC. Longitudinal melanonychia revealing an intraepidermal carcinoma of the nail apparatus: detection of integrated HPV-16 DNA. J Am Acad Dermatol. 1998;39:490-3.

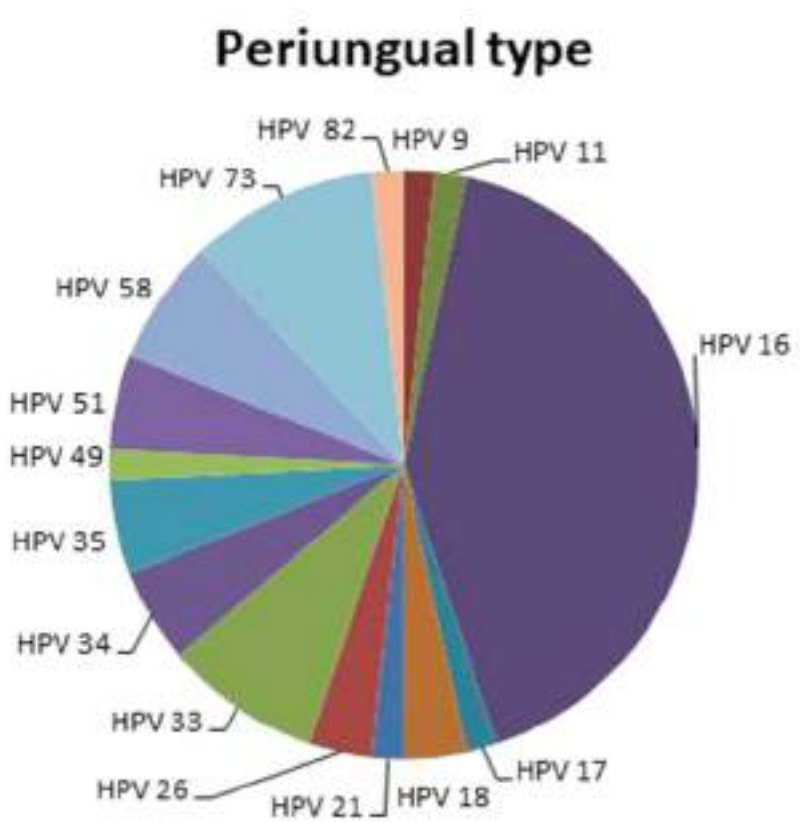
NAIL SCC : HISTORY

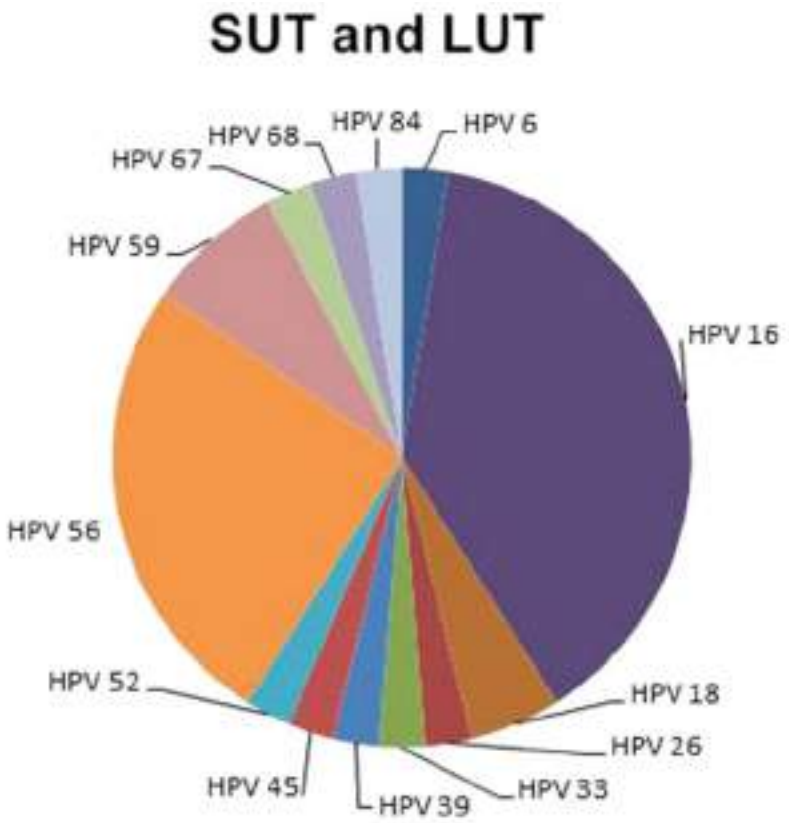
- Multiple finger lesions = **HPV is transmissible**
- Transmission of HPV from men to their partners is likely to occur
- **Self- inoculation** is a possible route of infection
- **NIN = sexually transmitted infection**

Shimizu A, Kuriyama Y, Hasegawa M, Tamura A, Ishikawa O. Nail squamous cell carcinoma: A hidden high-risk human papillomavirus reservoir for sexually transmitted infections. J Am Acad Dermatol. 2019 ;81:1358-1370.

Jedlowski PM, Jedlowski MF, Segal RJ. Polydactylous Squamous Cell Carcinoma of the Nail Unit: A Structured Review of the Literature. J Cutan Med Surg. 2021;25(3):303-314.

NAIL SCC : HISTORY





Shimizu A, Kuriyama Y, Hasegawa M, Tamura A, Ishikawa O. Nail squamous cell carcinoma: A hidden high-risk human papillomavirus reservoir for sexually transmitted infections. J Am Acad Dermatol. 2019 ;81:1358-1370.

TYPES OF SCC AT THE NAIL UNIT

Originate from **2 different epithelia**, with a different clinical behavior

NAIL FOLDS
& the volar skin
(**PUT**)(**P**eri**U**ngual **T**ype)

WARTY
HYPERKERATOTIC-LIKE
APPEARANCE

NAIL BED
beneath the nail plate
(**SUT**)(**S**ub**U**ngual **T**ype)

TUMOR MASS NODULAR
ULCERATED
LESIONS

Dika E, Starace M, Patrizi A, Fanti PA, Piraccini BM. Squamous Cell Carcinoma of the Nail Unit: A Clinical Histopathologic Study and a Proposal for Classification. Dermatol Surg. 2019;45:365-370.

PERIUNGUAL NAIL SCC : CLINICAL FEATURES

Lecerf P, Richert B, Theunis A, André J. A retrospective study of squamous cell carcinoma of the nail unit diagnosed in belgian general hospital over a 15 year period. JAAD, 2013;69:253-61.

Starace M, Alessandrini A, Dika E, Piraccini BM. Squamous cell carcinoma of the nail unit. Dermatol Pract Concept. 2018 31;8:238-244.

PERIUNGUAL NAIL SCC : CLINICAL FEATURES

PERIUNGUAL NAIL SCC : CLINICAL FEATURES









PERIUNGUAL NAIL SCC : CLINICAL FEATURES

May be very extensive….

PERIUNGUAL NAIL SCC : CLINICAL FEATURES

- **Pigmented** nail SCC
- **Unusual**
- More common in **skin of color**

May be pigmented….

Pradhan S, Xue SL. A rare case of pigmented Bowen disease of the nail fold. Chin Med J (Engl). 2020; 20;133(12):1503-1504.

TYPES OF SCC AT THE NAIL UNIT

Originate from **2 different epithelia**, with a different clinical behavior

NAIL FOLDS
& the volar skin
(**PUT**)(**P**eri**U**ngual **T**ype)

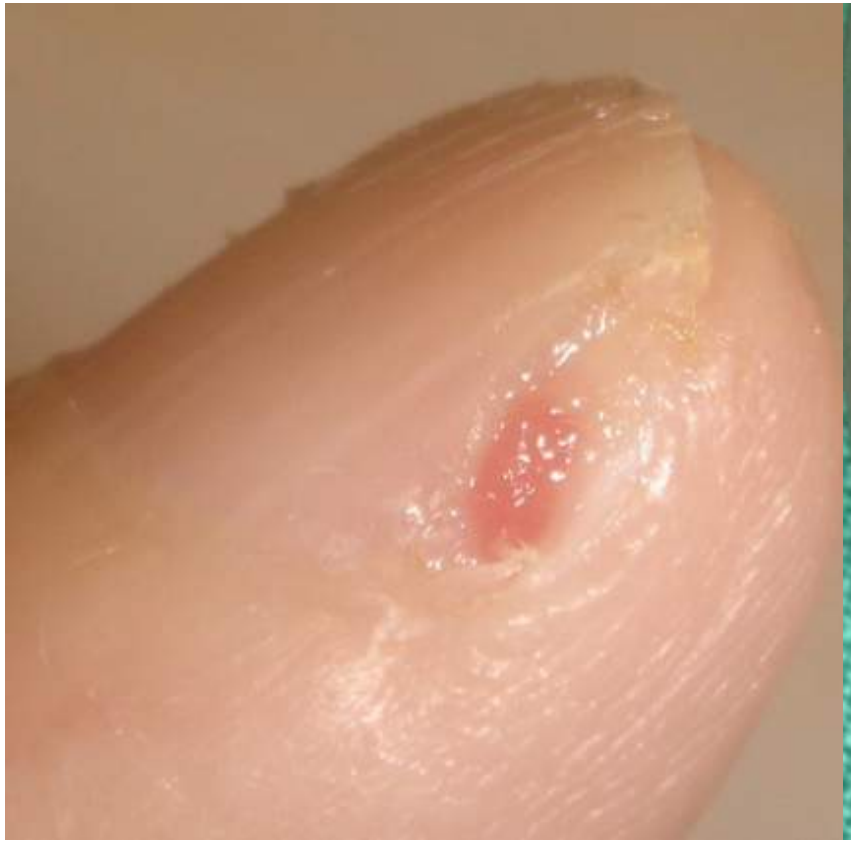
WARTY
HYPERKERATOTIC-LIKE
APPEARANCE

NAIL BED
beneath the nail plate
(**SUT**)(**S**ub**U**ngual **T**ype)

TUMOR MASS NODULAR
ULCERATED
LESIONS

Dika E, Starace M, Patrizi A, Fanti PA, Piraccini BM. Squamous Cell Carcinoma of the Nail Unit: A Clinical Histopathologic Study and a Proposal for Classification. Dermatol Surg. 2019;45:365-370.

SUBUNGUAL NAIL SCC : CLINICAL FEATURES



PERIUNGUAL NAIL SCC : CLINICAL FEATURES

NAIL SCC : COMPLEMENTARY EXAMS

BIOPSY (Histopathology)

- Punch **biopsy = focal aspect** of the tumour
- Once diagnosis confirmed = **complete removal of the tumour**
- Serial cuts to determine if *in situ* or invasive
- **Cleared margins**

Clark MA, Filitis D, Samie FH, Piliang M, Knackstedt TJ. Evaluating the Utility of Routine Imaging in Squamous Cell Carcinoma of the Nail Unit. Dermatol Surg. 2020;46:1375-1381.

Lecerf P, Richert B, Theunis A, André J. A retrospective study of squamous cell carcinoma of the nail unit diagnosed in belgian general hospital over a 15 year period. JAAD, 2013;69:253-61.

SCC: PROGNOSIS

EXCELLENT PROGNOSIS

- Metastases are rare (8 cases)
- Deaths are exceptionnal (3 cases)

- Alam M. Human papillomavirus-associated digital squamous cell carcinoma: Literature review and report of 21 new cases. J Am Acad Dermatol . 2003
- Kouskoukis C. Squamous-cell carcinoma of the nail bed. J Dermatol Surg Oncol. 1982

SCC: TREATMENT

CONSERVATIVE SURGICAL RESECTION (functional surgery)

with histological controls of the margins

Goldminz D, Bennett RG. Mohs micrographic surgery of the nail unit. *J Dermatol Surg Oncol* 1992;18(8):721-726.

Dalle S, Depape L, Phan A, et al. Squamous cell carcinoma of the nail apparatus: clinicopathological study of 35 cases. *Br. J. Dermatol.* 2007;156(5):871-874.

Dika E, Piraccini B m., Balestri R, et al Mohs Surgery for Squamous Cell Carcinoma of the Nail: report of 15 cases. Our Experience and a Long-term Follow Up. *British Journal of Dermatology*. 2012: 167(6):1310-4.

Lecerf P, Richert B, Theunis A, André J. A retrospective study of squamous cell carcinoma of the nail unit diagnosed in belgian general hospital over a 15 year period. JAAD, 2013;69(2):253-61.

SCC: TREATMENT

AMPUTATION

Disarticulation **should be restricted to bone involvement**

(X-rays or MRI and/or histological examination)

Choughri H, Villani F, Sawaya E, Pelissier P. Atypical squamous cell carcinoma of the nail bed with phalangeal involvement. J Plast Surg Hand Surg. 2011;45:173-6.

NAIL SCC: TO REMEMBER

- **Biopsy** any warty, oozing, long-standing lesion of the NU in adults
- SCCNU is **very weakly aggressive** and slow growing
- *In situ* or invasive SCCNU without bony involvement: functional surgery (**Moh's is best)**
- **Amputation only if proven bone involvement**

WHAT WILL BE THE **IMPACT OF HPV VACCINATION** ON SCC OF THE NAIL UNIT?

5. NAIL MELANOMA

MELANOMA : introduction

- NAM diagnosis is very often delayed

- **Associated with <u>poor prognosis</u>**:
  - **Patient** does not suspect cancer at that site and seek medical advice late = thick Breslow
  - Only 1/3 of patient with LM ask for advice

Tosti A, Piraccini BM, Cadores de Farias D. Dealing with melanonychia. Semin Cutan Med Surg 2009;28:49-54.

Thai KE, Young R, Sinclair RD. Nail apparatus melanoma. Australas J Dermatol. 2001;42(2):71-81; quiz 82-83.

MELANOMA : introduction

- NAM diagnosis is very often delayed
- **Associated with <u>poor prognosis</u>**:
  - The overall accuracy of **dermatologists** in the diagnosis of melanoma is low
  - Only 45 to 55 % of correct diagnosis

Di Chiacchio N, Hirata SH, Enokihara MY, Michalany NS, Fabbrocini G, Tosti A. Dermatologists' accuracy in early diagnosis of melanoma of the nail matrix. *Arch Dermatol.* 2010;146(4):382-7.

MELANOMA : clinical features

- **Great toenail** (24%) and **thumb** (18%) are most affected

Tan KB, Moncrieff M, Thomson JF et al. Subungual melanoma, a study of 124 cases highlighting features of early lesions, potential for histologic reports. Am J Surg Pathol 2007;31:1902-1911.

- **Women** around **65 years**, great toenail (53%) , thumb (31%) and little finger (10%)

Cohen T, Busam KJ, Patel A et al. Nail apparatus melanoma: management consideration Am J Surg 2008;95:244-248.

- NAM in **children is exceptional**

Tosti A, Piraccini BM, Cagalli A, Haneke E. In situ melanoma of the nail unit in children: report of two cases in fair-skinned Caucasian children. Pediatr Dermatol. 2012;29(1):79-83.

1 MELANOMA : clinical features

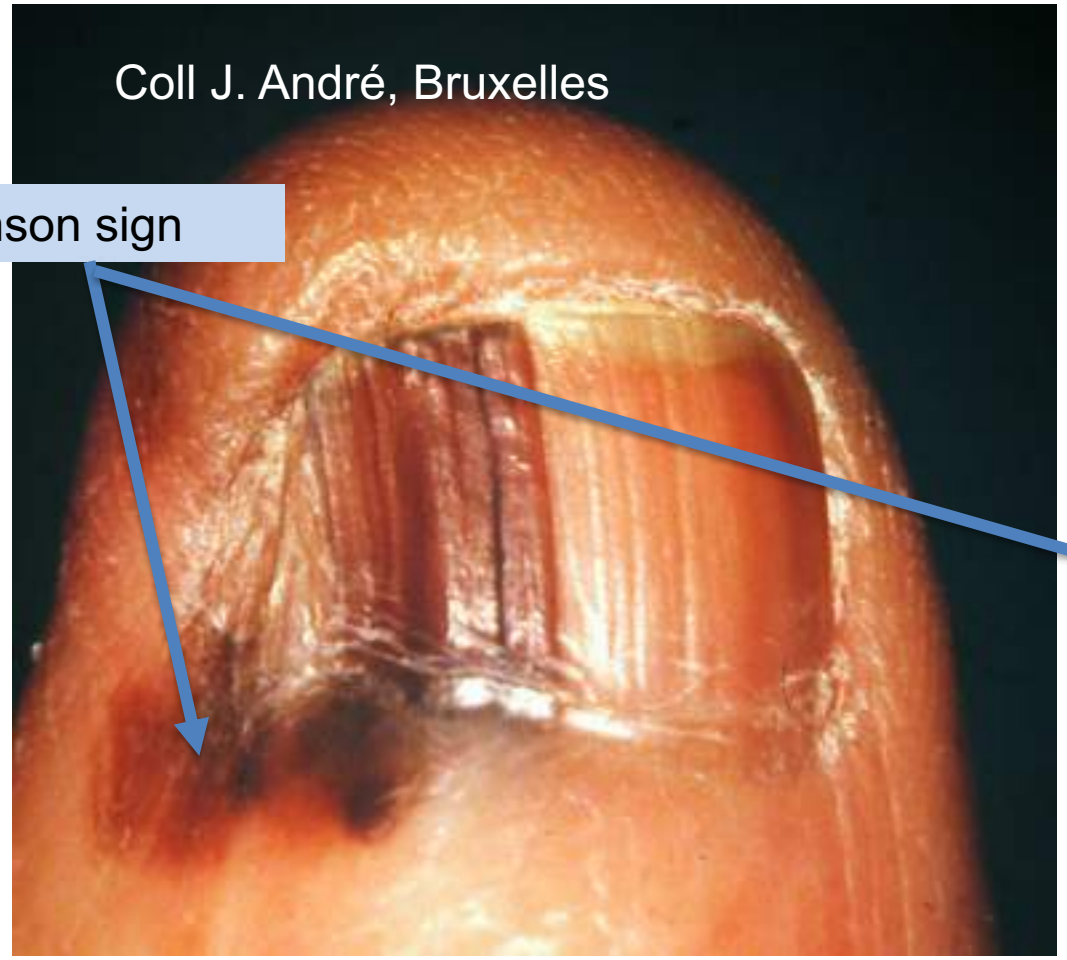
- **Matrix origin**: **LONGITUDINAL MELANONYCHIA**

  = 1st symptom in **70 % of cases**

- Suspicious pigmented band should be recognized !

Ishihara Y, Matsumoto K, Kawachi S, Saida T. Detection of early lesions of « ungual » malignant melanoma. Int J Dermatol. 1993;32(1):44-7.

SUSPICIOUS LM



Hutchinson sign

PERIUNGUAL PIGMENTATION

SUSPICIOUS LM

BLURRED BORDERS

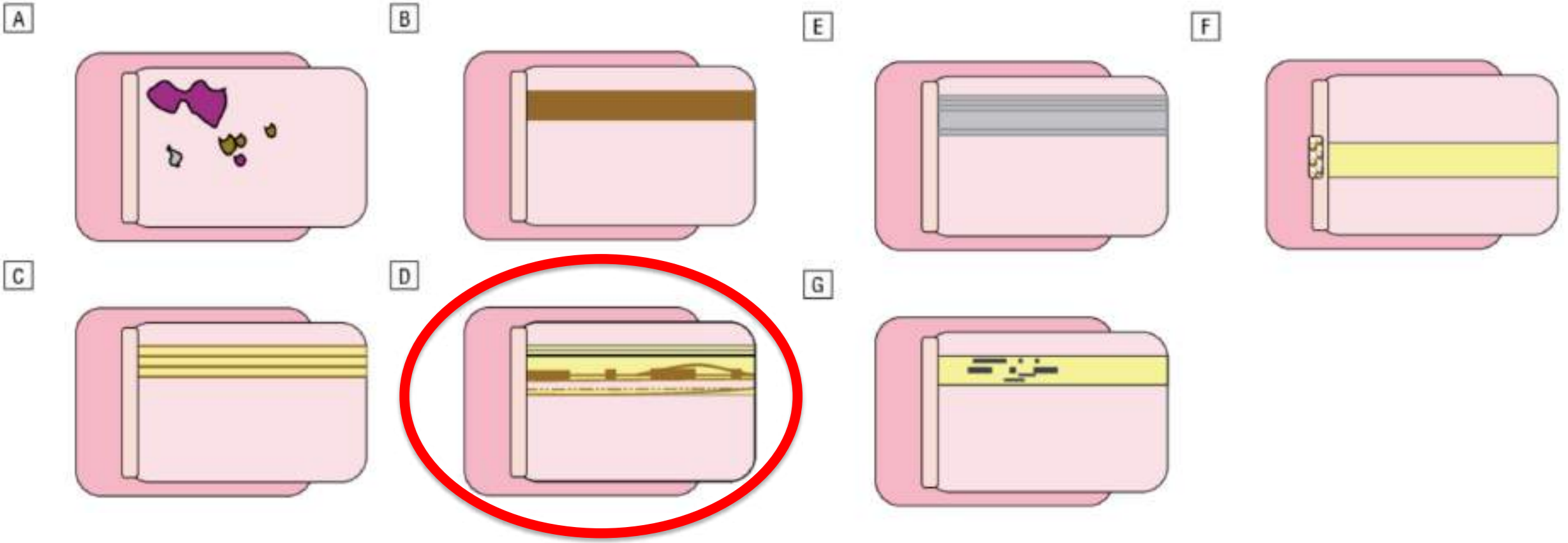
SUSPICIOUS LM

WIDENING

SUSPICIOUS LM

WIDENING & FAMILIAL HISTORY

SUSPICIOUS LM



Ronger S, Touzet S, Ligeron C et al. Dermoscopic examination of nail pigmentation. Arch Dermatol. 2002 ;138:1327-33.

NAIL PLATE DERMATOSCOPY

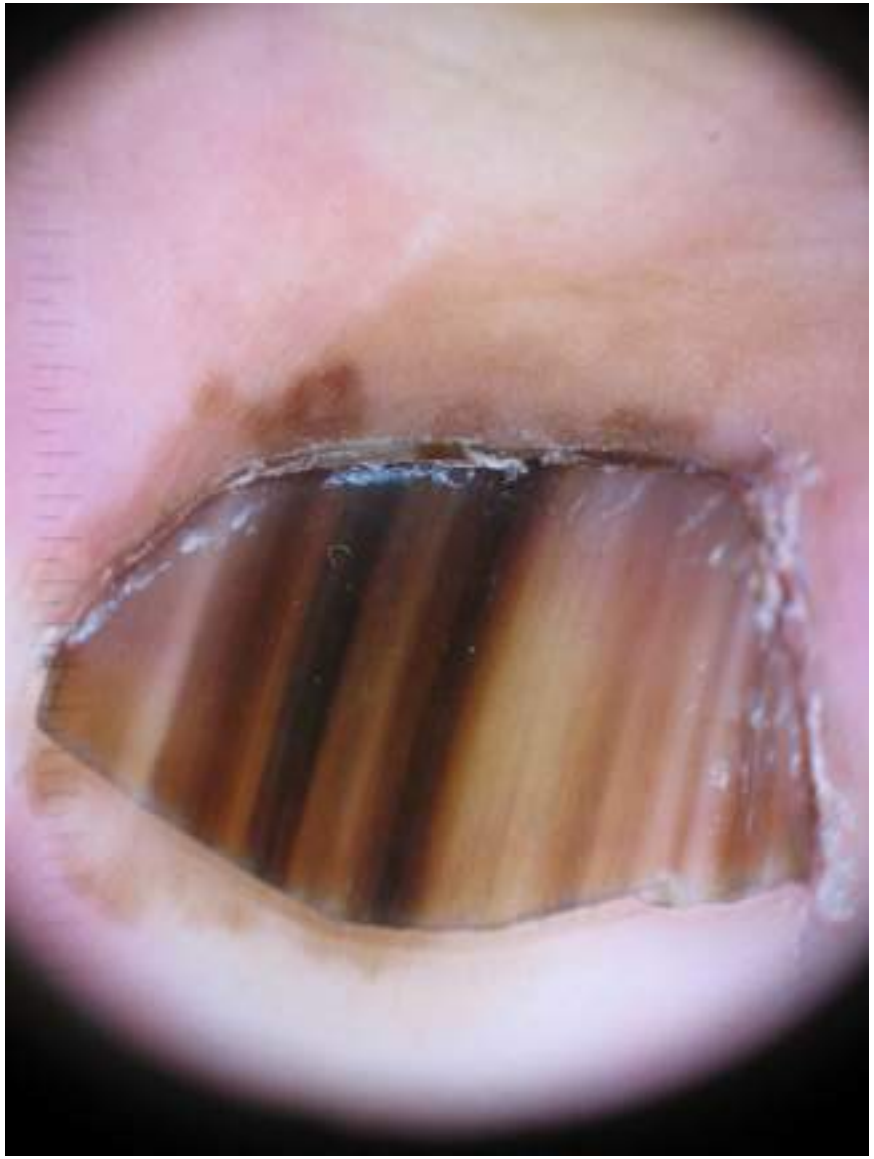
- Melanoma = band **> 2/3 of the plate**
- **Colour irregularity** (grey & brown)
- **Irregular longitudinal lines**
- Hutchinson & micro-Hutchinson signs
- Nail dystrophy
- **Granular pigmentation** (new criteria present in 40% of melanomas vs 3.51% of benign lesion)

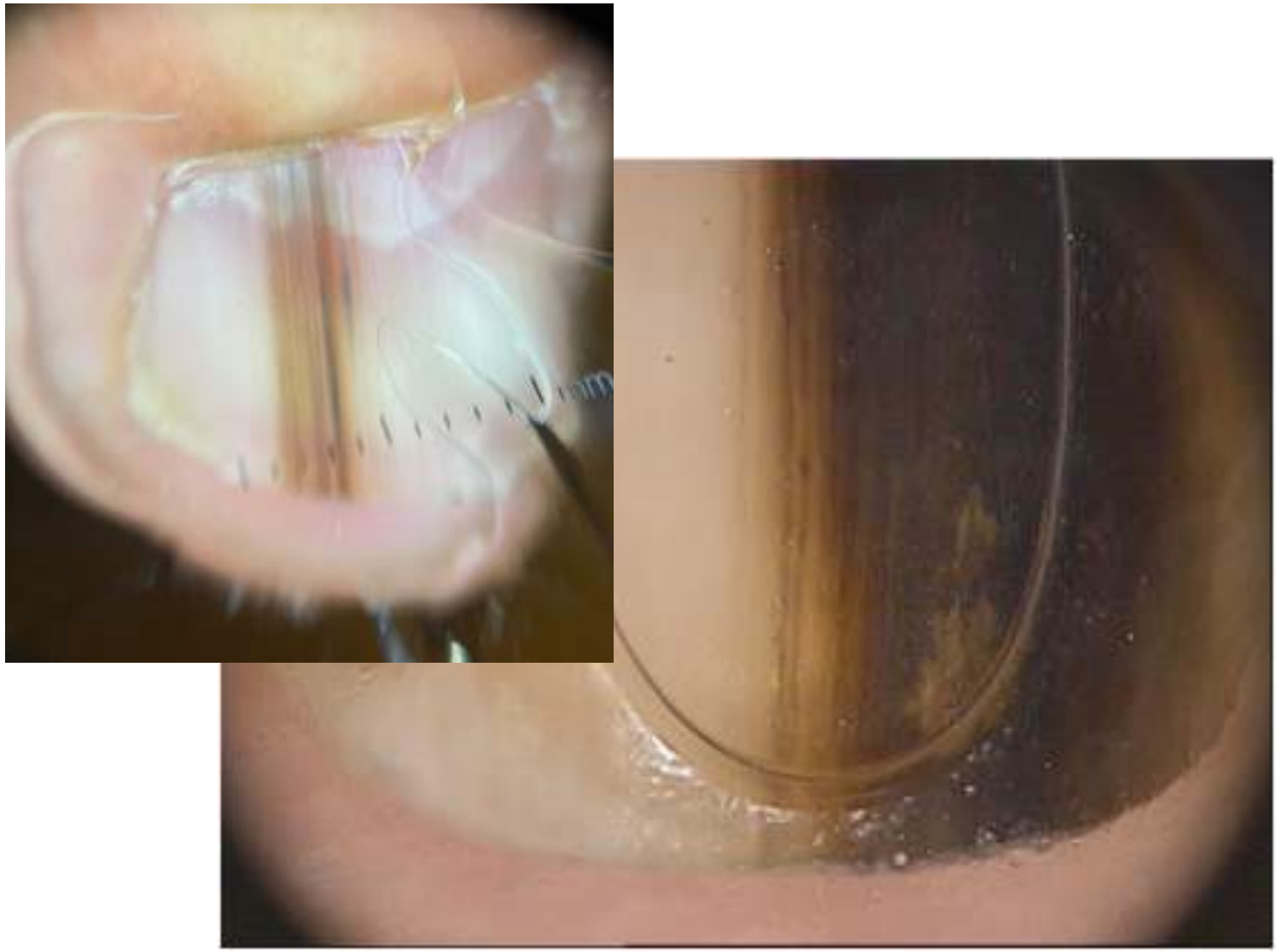
HIGH RISK OF MELANOMA

Benati E, Ribero S, Longo C, Piana S, Puig S, Carrera C, Cicero F, Kittler H, Deinlein T, Zalaudek I, Stolz W, Scope A, Pellacani G, Moscarella E, Piraccini BM, Starace M, Argenziano G. Clinical and dermoscopic clues to differentiate pigmented nail bands: an International Dermoscopy Society study. J Eur Acad Dermatol Venereol. 2017 Apr;31(4):732-736.

Ko D, Oromendia C, Scher R, Lipner SR. Retrospective single-center study evaluating clinical and dermoscopic features of longitudinal melanonychia, ABCDEF criteria, and risk of malignancy. J Am Acad Dermatol. 2019 May;80(5):1272-1283.

SUSPICIOUS LM





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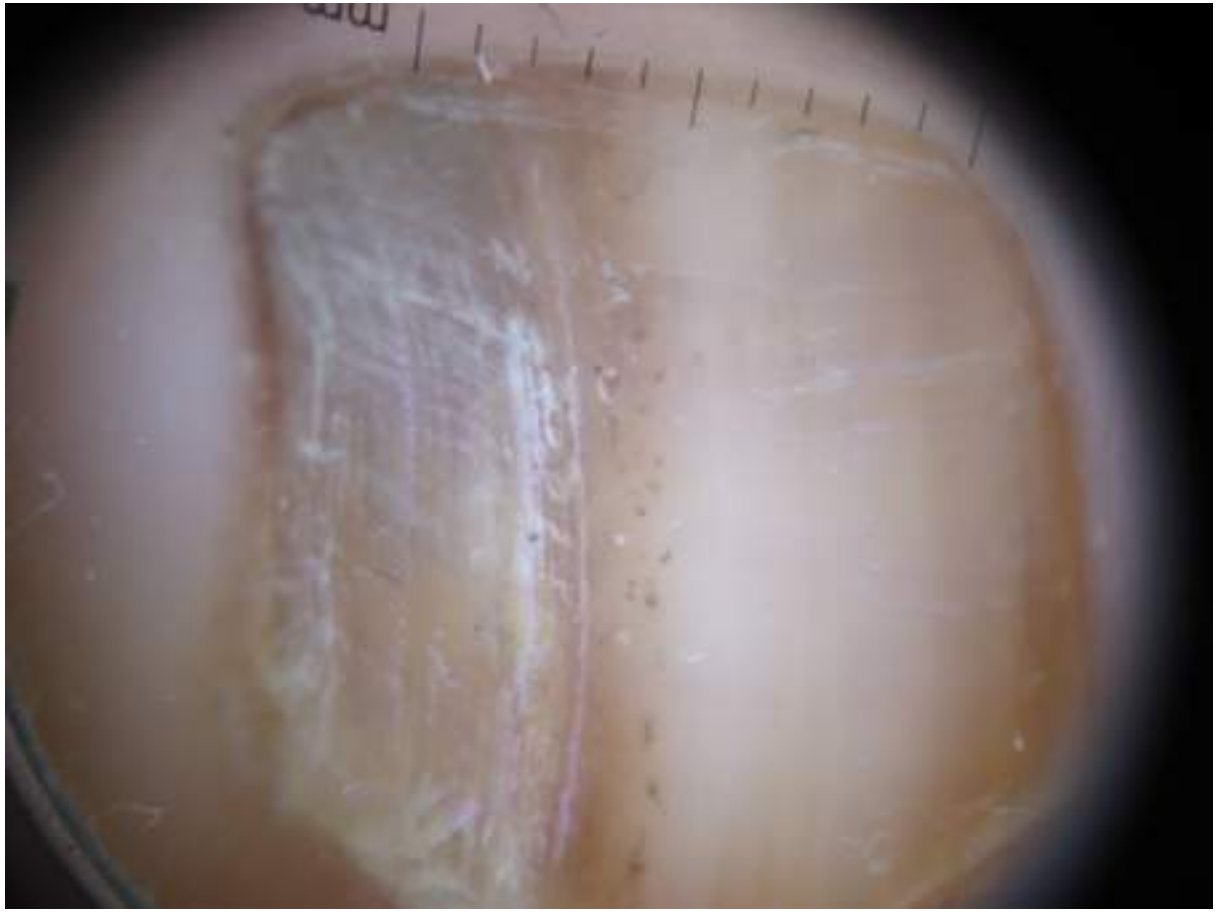

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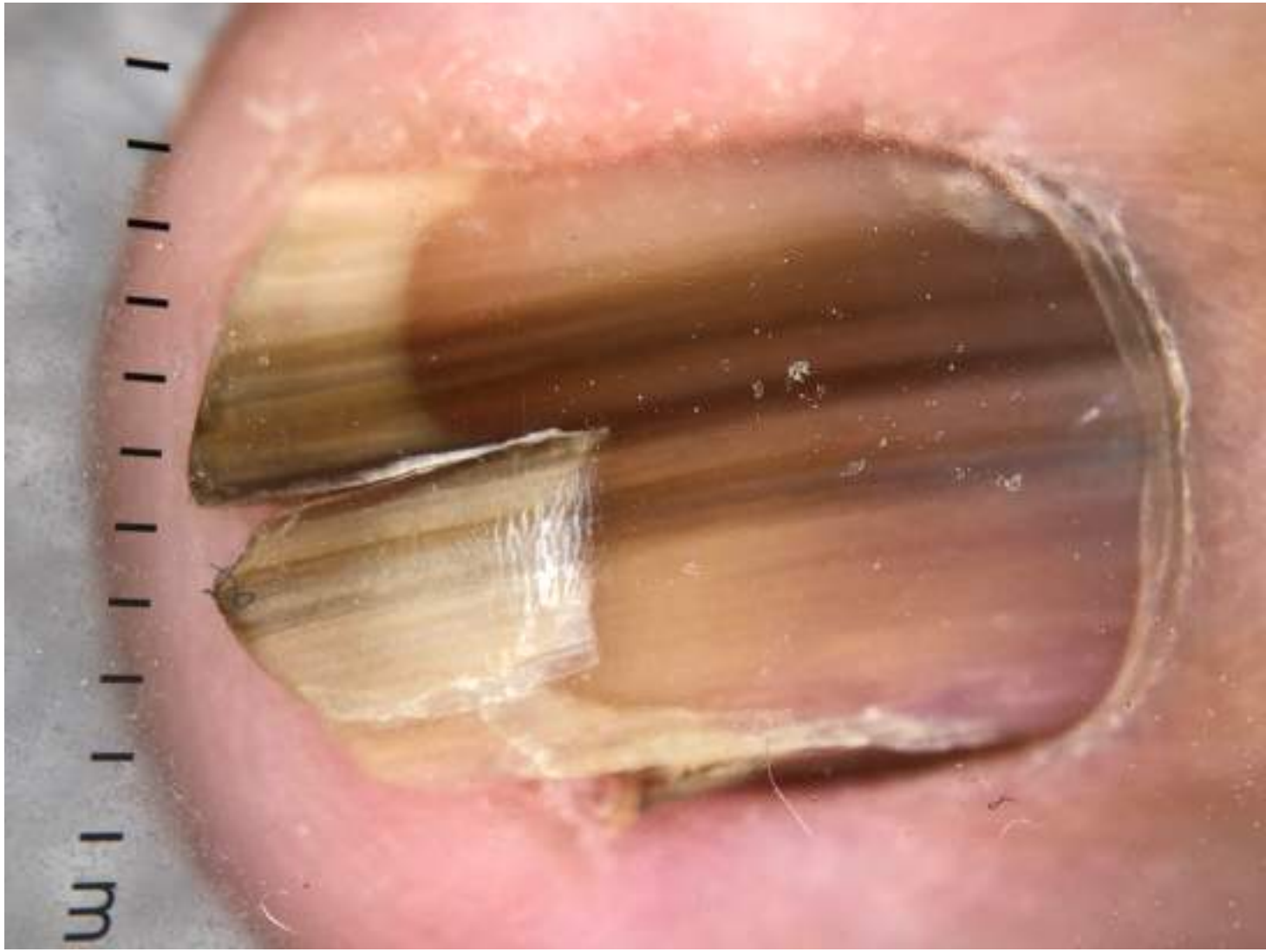

2 MELANOMA: clinical features

- **Nail bed origin**: **NODULE**, pigmented or not

- Any nodule, ulceration, isolated pigmentation, unexplained monodactylic paronychia, especially with partial destruction of the plate MUST suggest a melanoma

Tosti A, Piraccini BM, Cadores de Farias D. Dealing with melanonychia. Semin Cutan Med Surg 2009;28:49-54.

MELANOMA : clinical features

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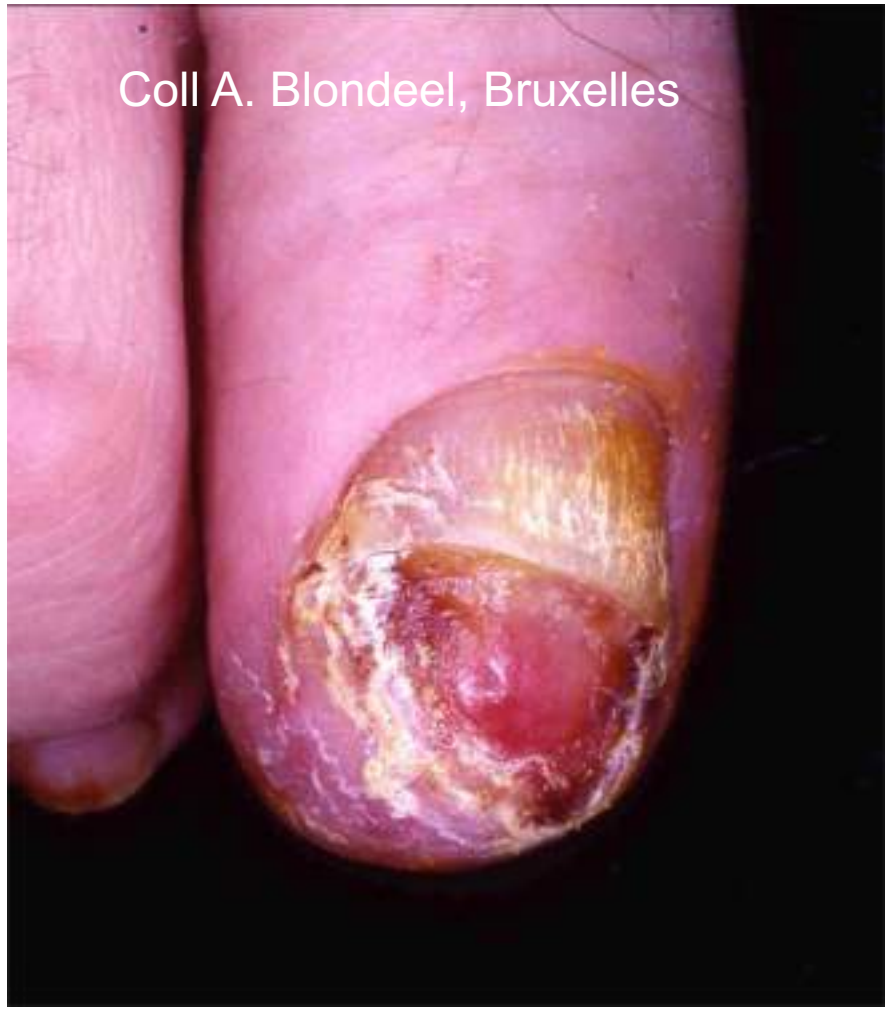
20 to 30 % of NUM are AMELANOTIC !!

MELANOMA : clinical features



Thai KE, Young R, Sinclair RD. Nail apparatus melanoma. Australas J Dermatol. 2001;42(2):71-81; quiz 82-83.

MELANOMA : clinical features

Thai KE, Young R, Sinclair RD. Nail apparatus melanoma. Australas J Dermatol. 2001;42(2):71-81; quiz 82-83.

MELANOMA: treatment

Studies have demonstrated that the level of amputation did not affect survival

Dika E, Piraccini BM, Fanti PA. Management and treatment of nail melanoma. G Ital Dermatol Venereol. 2017 Jun;152(3):197-202.

Nguyen JT, Bakri K, Nguyen EC, Johnson CH, Moran SL. Surgical management of subungual melanoma: Mayo clinic experience of 124 cases. Ann Plast Surg. 2013;71(4):346-54.

Martin DE, English JC, Goitz RJ. Subungual malignant melanoma. J Hand Surg Am. 2011;36(4):704-7.

Finley RK 3rd, Driscoll DL, Blumenson LE, Karakousis CP. Subungual melanoma: an eighteen-year review. Surgery. 1994;116(1):96-100.

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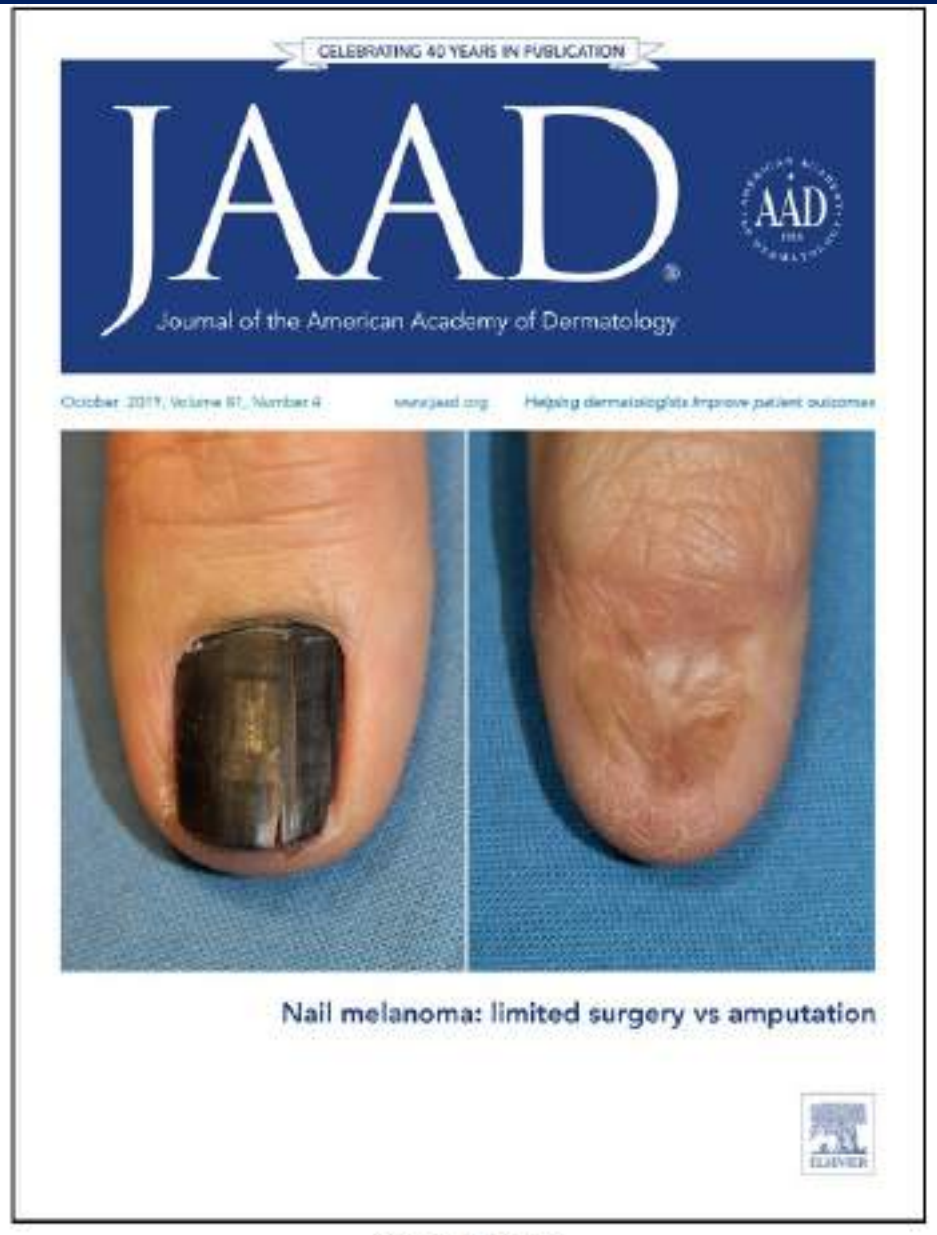
MELANOMA: treatment



October 2019

ORIGINAL ARTICLE

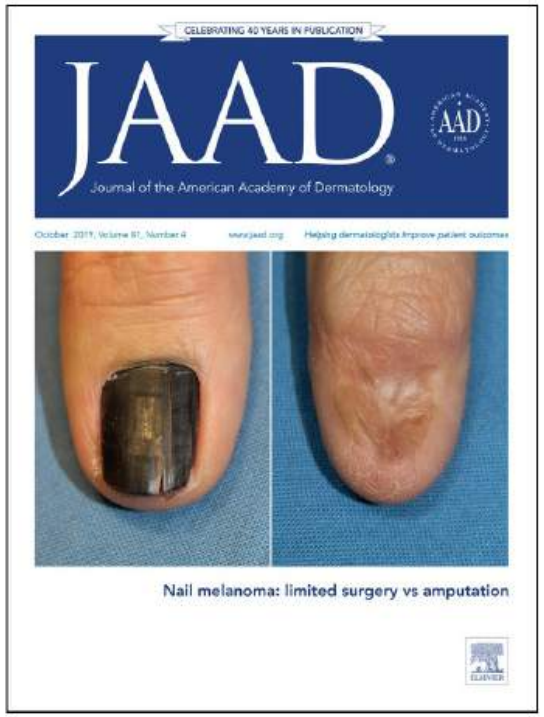
Functional surgery versus amputation for in situ or minimally invasive nail melanoma: A meta-analysis

Gwanghyun Jo, MD,[a] Soo Ick Cho, MD,[a] Sungjun Choi, MD,[a] and Je-Ho Mun, MD, PhD[a,b]
Seoul, Republic of Korea

CAPSULE SUMMARY

- Nail melanoma should be treated by complete surgical excision.
- Our meta-analysis showed no significant difference in local recurrence between functional surgery and amputation for in situ or minimally invasive nail melanoma; therefore, functional surgery should be the first treatment for in situ or minimally invasive nail melanoma.

MELANOMA: treatment



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Seoul, Republic of Korea

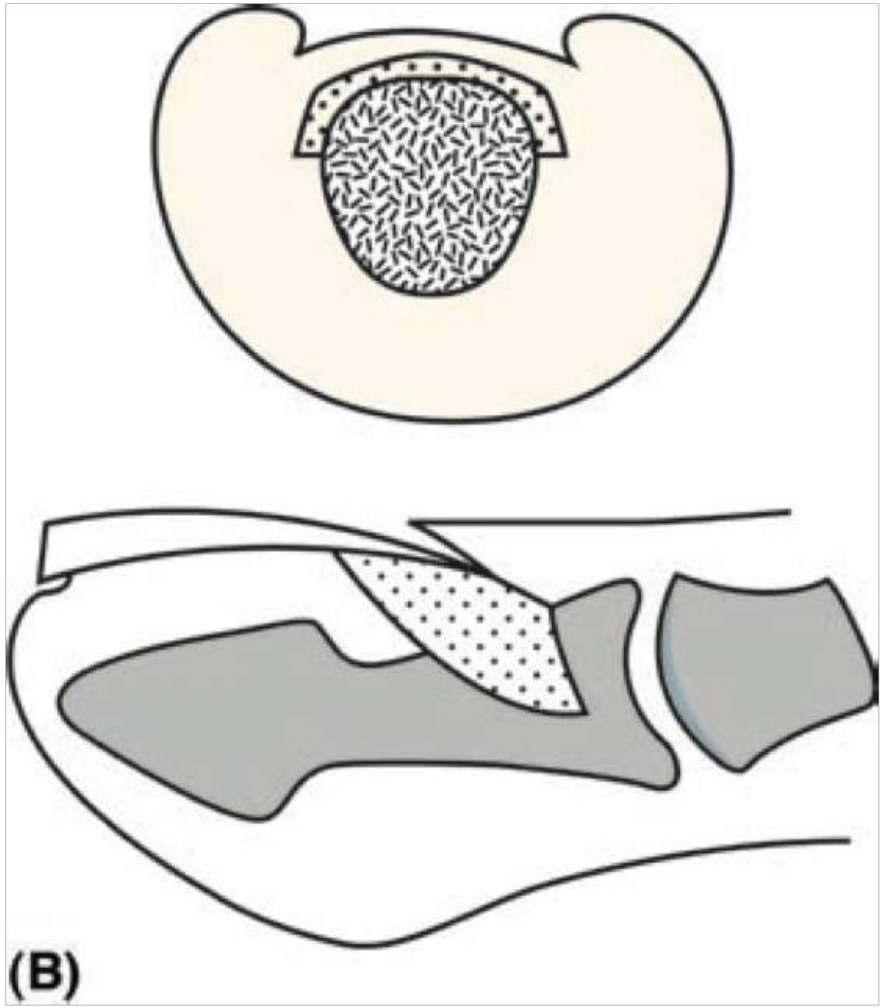
CONCLUSION

Meta-analysis showing **no significant difference in the recurrence rate between FS and amputation.**

Functional surgery should be the gold standard for NAM ***in situ***

Jo G, Cho SI, Choi S, Mun JH. Functional surgery versus amputation for in situ or minimally invasive nail melanoma: A meta-analysis. J Am Acad Dermatol. 2019 Jun 13. pii: S0190-9622(19)30975-2.

NAM *in situ* **:** lateral margins !!!



NAM *in situ*: treatment

EXCELLENT COSMETIC AND FUNCTIONAL OUTCOMES

NAM: *practical* managment

***In-situ* NAM:**

. Complete resection of the NU with 6-10 mm margins should be proposed to the patient

. Special attention when thumb or GTN involvement

***Invasive* NAM:**

. Most « functional » amputation according to the thickness of the tumour.

NAIL MELANOMA: TO REMEMBER

- Beware of monodactylic pigmented lesions of the great toenail and thumb of patients over 50.
- Learn or improve your onychosopic skills
- Do not hesite to biopsy (**excisional** biopsy)
- Amputation is NOT the rule for *in-situ* NAM
- Life time follow up is a must

Tick the **RIGHT** proposal :

1. Best systemic treatment for onychomycosis is pulsed terbinafine double dosage (500mg)
2. The risk of developing psoriatic arthritis is higher with subungual hyperkeratotic variants and with severe associated skin psoriasis
3. First approach for nail lichen planus is topical treatment for 6 months
4. Best diagnostic procedure for subungual SCC (SUT) is MRI
5. There is an evidence-based guidance for more conservative care in both nail melanoma in situ and squamous cell carcinoma in situ.

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UPCOMING COURSE

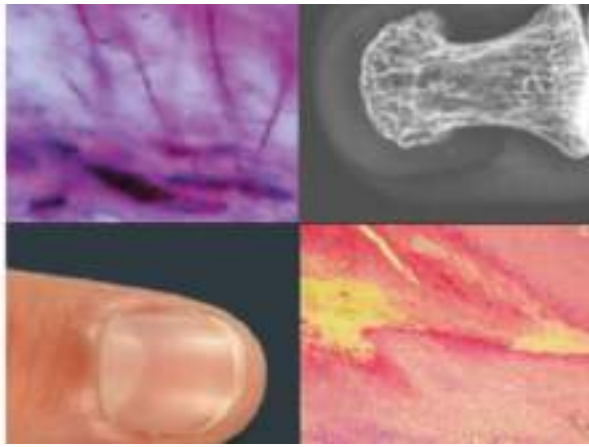
15ème EDITION

ACCREDITATIONS REQUESTED

ONYCHOLOGY COURSE

19 & 20.04.24 | SESSION FRANCOPHONE

@ CHU ST PIERRE - BRUSSELS, BELGIUM



www.onychologycourse.eu

European Nail Society

www.euronailsociety.org

NAIL SCC : CLINICAL FEATURES

PUT

Peri Ungual Type

SUT (ML)

Sub Ungual Type / Longitudinal Melanonychia

NAIL SCC : IMAGING

DERMATOSCOPY

Onycholysis, irregular vascularity, with a rough to verrucous surface

None of these signs **is diagnostic** !

Ghariani Fetoui N, Mokni S, Aounallah A, Ghariani N, Belajouza C, Boussofara L, Denguezli M. Bowen disease of the nailfold: dermoscopic diagnosis. Int J Dermatol. 2019;58(12):e252-e253.

NAIL SCC : IMAGING

DERMATOSCOPY

Typical alterations:

Glomerular vessels, visible only when no hyperkeratosis