

# AEDV 2023 Highlights

Con el patrocinio de:



32º EDICIÓN • 32º EDICIÓN • 32º EDICIÓN • 32º EDICIÓN • 32º EDICIÓN • 32º EDICIÓN • 32º EDICIÓN • 32º EDICIÓN • 32º EDICIÓN • 32º EDICIÓN

# BER LIN

11-14 OCTUBRE

Iniciativa científica de:



ACADEMIA ESPAÑOLA  
DE DERMATOLOGÍA  
Y VENEREOLOGÍA



# AEDV 2023 Highlights

## Novedades en

# DERMATOPATOLOGÍA

José M<sup>a</sup> Camino Salvador

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[josecamino96](https://www.instagram.com/josecamino96)

NO TENGO CONFLICTOS DE INTERÉS



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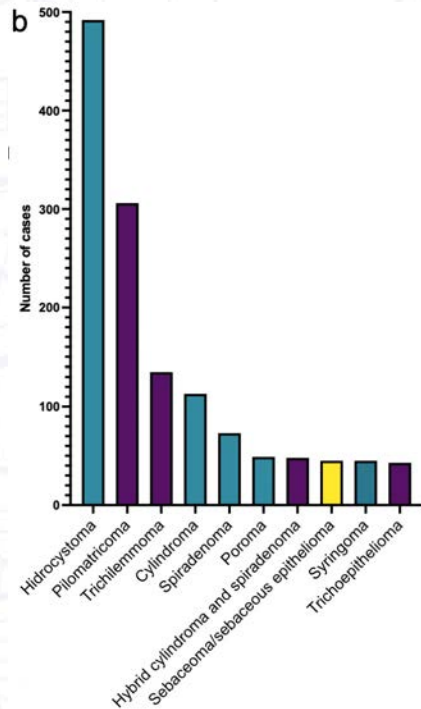
**BER  
LIN**

**11-14 OCTUBRE**



## TUMORES ANEXIALES

N = 1615 casos (1,5%).



> Br J Dermatol. 2022 Jan;186(1):167-173. doi: 10.1111/bjd.20701. Epub 2021 Oct 21.

### A 5-year retrospective review of skin adnexal tumours received at a tertiary dermatopathology service: implications for linked genetic diagnoses

S Cook <sup>1</sup>, D Bajwa <sup>2</sup>, L Hollestein <sup>3 4</sup>, A Husain <sup>1</sup>, N Rajan <sup>2 5</sup>

- 97% of cases benign, median age 55 yrs, M:F – 0.77:1
- 10% of cases paediatric (all benign)
- 80% of cases H&N, 35% periocular
- 90% of paediatric cases pilomatricoma
- most common adult tumor hidrocystoma



Zlatko Marusic  
Adnexal tumours

Commentary | [Free to Read](#)

#### Skin adnexal tumours in a tertiary dermatopathology service

Z. Marušić E. Calonje

First published: 15 November 2021 | <https://doi.org/10.1111/bjd.20816>

- prebiopsy diagnosis correct in only 28%



## Molecular pathology of skin adnexal tumours

Jaclyn M Plotzke<sup>1</sup>, David J Adams<sup>2</sup>, Paul W Harms<sup>1 3 4</sup>

**Table 1.** Syndromic associations with cutaneous adnexal tumors

Syndrome	Gene function	Cutaneous tumors	Extracutaneous neoplasms	Other findings	Estimated prevalence
Bazex–Dupré–Christol ( <i>ACTR11</i> )	Ciliary function	BCC, less frequently trichoepitheliomas	N/A	Follicular atrophoderma, hypotrichosis, hypohidrosis, milia, facial hyperpigmentation, hair shaft anomalies	<1/1 000 000
Birt–Hogg–Dube ( <i>FLCN</i> )	Inhibition of mTOR pathway	Fibrofolliculoma/trichodiscoma, acrochordon	Pulmonary cysts, renal tumors (most commonly oncocytoma or renal cell carcinoma)	Spontaneous pneumothorax	Unknown
CYLD cutaneous syndrome/Brooke–Spiegler ( <i>CYLD</i> )	Deubiquitinase (NF-κB inhibition)	Trichoepithelioma, spiradenoma, cylindroma, spiradenocylindroma with rare malignant transformation	Membranous basal cell adenoma (salivary gland)	N/A	<1/100 000
Clouston ( <i>GJB6, GJB2</i> )	Connexins	Syringofibroadenoma	N/A	Palmoplantar keratoderma, hypotrichosis, nail dystrophy	Unknown
Cowden (PTEN)	Inhibition of PI3K signaling	Trichilemmoma, multiple hamartomatous lesions	High risk for breast, thyroid, and endometrial carcinoma	Acral keratoses, oral papillomas	1/200 000
Familial Piliomatricoma ( <i>PLCD1</i> )	Phospholipase C (Protein kinase C, MAPK)	Multiple piliomatricomas	N/A	N/A	Unknown
FAP ( <i>APC</i> )	Inhibition of Wnt/β-catenin signaling	Multiple piliomatricomas, epidermoid cysts, cutaneous fibromas, lipomas	Osteomas, colorectal adenomas, desmoid tumors, adrenal adenomas, nasopharyngeal angiofibroma Increased risk for colon, thyroid, hepatobiliary, and CNS malignancies	N/A	(~1/8000)

**Table 1.** (Continued)

Syndrome	Gene function	Cutaneous tumors	Extracutaneous neoplasms	Other findings	Estimated prevalence
Muir–Torre (MMR genes: <i>MLH1, MSH2, and MSH6</i> )	DNA mismatch repair	Sebaceous adenoma, sebaceoma, sebaceous carcinoma, keratoacanthoma	Colonic adenocarcinoma (most common), genitourinary, breast, and hematologic malignancies	N/A	1/300
Malta syndrome/Nicolau–Balus ( <i>MYH9</i> , possible)	Myosin heavy chain	Syringoma, microcystic adnexal carcinoma-like lesions	N/A	Atrophoderma vermiculata, milia	Unknown
NBCCS ( <i>PTCH1</i> )	Inhibition of Hedgehog signaling	Numerous BCCs; basaloid follicular hamartomas (infrequent)	Odontogenic keratocysts, CNS tumors, ovarian cysts	Palmoplantar pits, skeletal anomalies, coarse facial features, hypertelorism, macrocephaly	~1/31000
Schimmelpenning–Feuerstein–Mims (postzygotic <i>HRAS/KRAS</i> )	RAS-MAPK signaling	Nevus sebaceus	CNS, ocular, and skeletal anomalies	N/A	Unknown
Schöpf–Schulz–P assarge ( <i>WNT10A</i> )	Wnt/β-catenin signaling	Syringofibroadenoma, eyelid apocrine hidrocystoma	N/A	Palmoplantar keratoderma, telangiectasia, dental anomalies, onychodystrophy, hypotrichosis	<1/1 000 000
Steatocystoma multiplex ( <i>KRT17</i> )	Keratin	Steatocystomas, eruptive vellus hair cysts	N/A	Pachyonychia congenita	Unknown

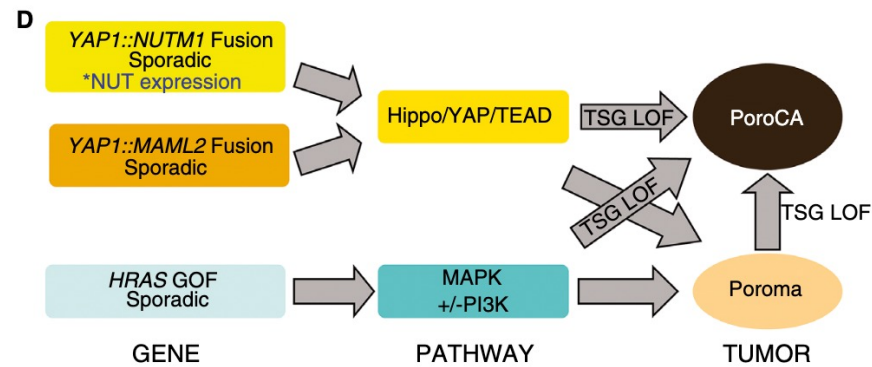
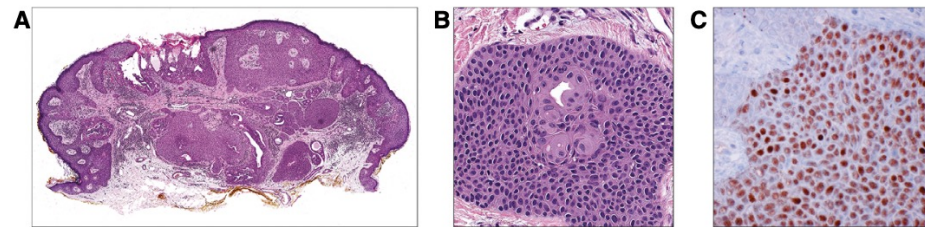
BCC, basal cell carcinoma; FAP, familial adenomatous polyposis; MMR, mismatch repair; NBCCS, nevoid basal cell carcinoma syndrome.



Review > Ann Dermatol Venereol. 2023 Sep;150(3):202-207.  
doi: 10.1016/j.annder.2023.03.003. Epub 2023 Jun 1.

## Genetics of adnexal tumors: An update

T Kervarrec<sup>1</sup>, P Sohier<sup>2</sup>, D Pissaloux<sup>3</sup>, A de la Fouchardiere<sup>3</sup>, B Cribier<sup>4</sup>, M Battistella<sup>5</sup>, N Macagno<sup>6</sup>



Review > Histopathology. 2022 Jan;80(1):166-183. doi: 10.1111/his.14441.

### Molecular pathology of skin adnexal tumours

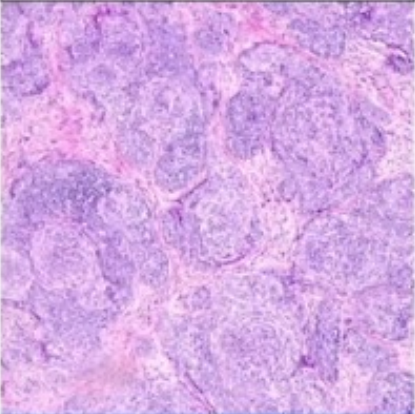
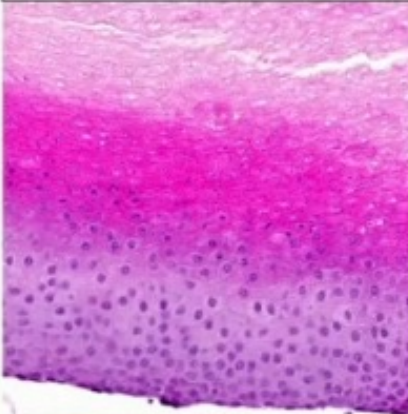
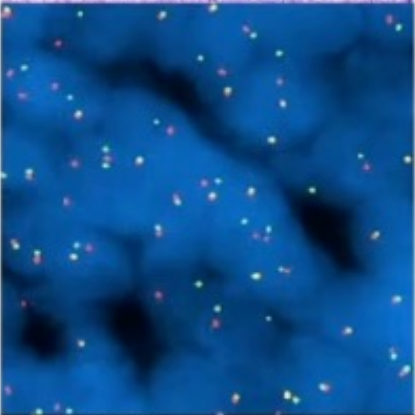

Jaclyn M Plotzke<sup>1</sup>, David J Adams<sup>2</sup>, Paul W Harms<sup>1,3,4</sup>

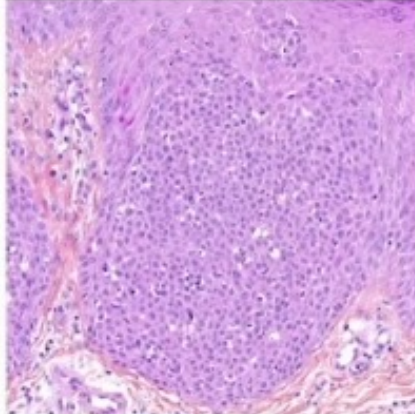
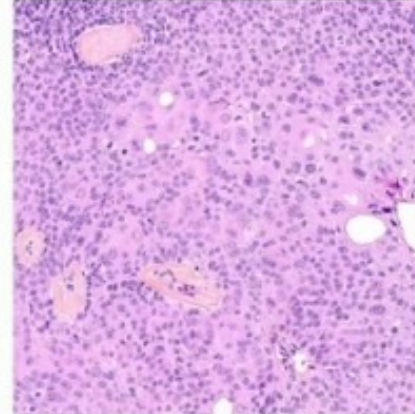
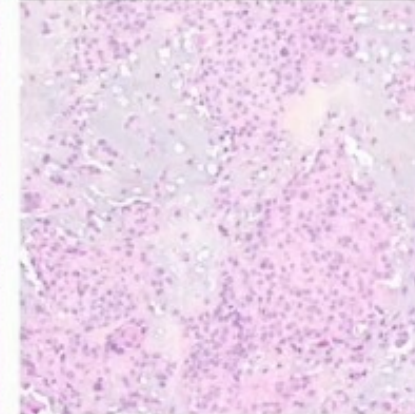
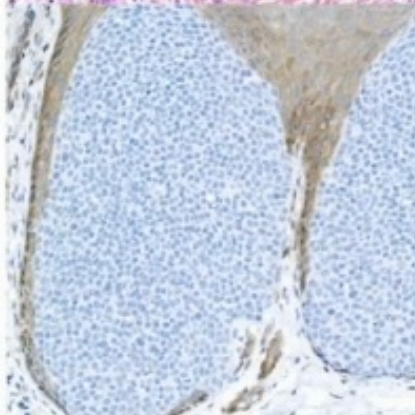
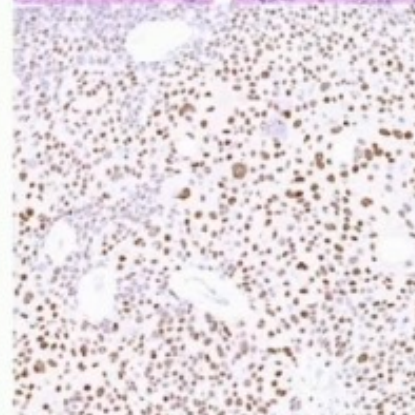
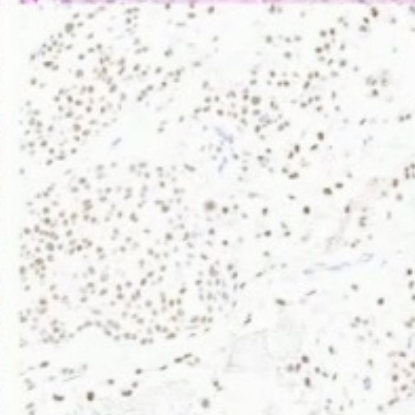
**Table 1**

Main recurrent genetic alterations in adnexal tumors. Int: virus integration, MMRd: MMR deficiency, mut: mutation, fus: fusion gene.

Follicular tumors	Genetic alteration	IHC marker
Trichilemmoma	<i>PTEN (mut)</i> (Cowden) <i>HRAS (mut)</i> (sebaceous nevus)	PTEN -
Trichoblastoma	<i>CYLD (mut)</i> (Brooke-Spiegler)	-
Adamantinoid trichoblastoma	<i>EGFR (mut)</i>	-
Trichogerminoma	<i>GRHL (fus)</i>	CK20
Pilomatricoma and other matrical tumors	<i>CTNNB1 (mut)</i>	β-catenin (nuclear)
Sebaceous tumors	Genetic alteration	IHC marker
Adenoma, sebaceoma and carcinoma	MMRd	MSH2, MSH6 MLH1, PMS2
Carcinoma	HPV (int), <i>RBI (mut)</i>	Rb
Sweat gland tumors	Genetic alteration	IHC marker
Poroma and porocarcinoma	<i>YAP::MAML2</i> , <i>YAP1::NUTM1</i>	YAP1 (Cter) NUT
Poroid hidradenoma	<i>YAP1::NUTM1</i>	YAP1 (Cter) NUT
Spiradenoma	<i>ALPK1 (mut)</i>	-
Cylindroma	<i>CYLD (mut)</i>	-
Hidradenoma	<i>CRTC1/3::MAML2</i>	-
Tubular adenoma	<i>BRAF (mut)</i>	BRAF p. V600E
Syringocystadenoma papilliferum	<i>BRAF (mut)</i>	-
Mixed tumors	<i>PLAG1 (fus)</i>	PLAG
Myoepithelioma	<i>PLAG1 (fus)</i>	PLAG
Adenoid cystic carcinoma	<i>MYB (fus)</i> , <i>MYBL1 (fus)</i>	-
Digital papillary adenocarcinoma	HPV42 (Int)	-
Secretory carcinoma	<i>ETV6::NTRK3</i>	Pan TRK
NUT adnexal carcinoma	<i>BRD3::NUTM1</i> , <i>NSD3::NUTM1</i> , <i>BRD3::NUTM2B</i>	NUT



Tumors with follicular differentiation	
<b><i>FO XK1::GRHL1</i> rearranged trichogerminoma</b>	<b><i>CTNNB1</i> mutated pilomatricoma</b>
	
	
<b><i>FO XK1</i> (break apart FISH)</b>	<b>Betacatenin (IHC)</b>

Tumors with eccrine and apocrine differentiation		
<b><i>YAP1::MAML2</i> rearranged hidroacanthoma simplex</b>	<b><i>YAP1::NUTM1</i> rearranged poroid hidradenoma</b>	<b><i>TRPS1::PLAG1</i> rearranged myoepithelioma</b>
		
		
<b><i>YAP1</i> C-terminal (IHC)</b>	<b>NUT (IHC)</b>	<b>PLAG1 (IHC)</b>



CPD • Clinicopathological case

CED  
Clinical and Experimental Dermatology

CPD

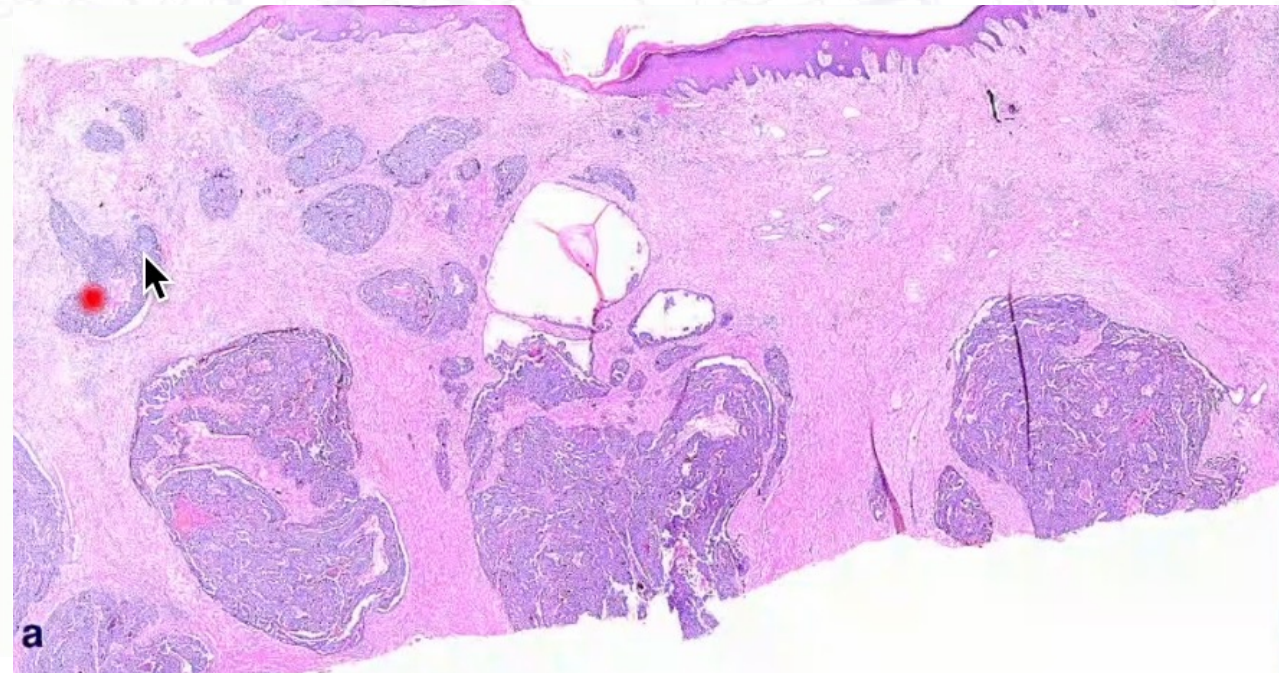
### A rare and aggressive cutaneous thumb tumour

I. Svagelj,<sup>1</sup> J. Zarubica-Mavsar,<sup>2</sup> L. Labinac,<sup>2</sup> D. Herceg<sup>3</sup> and Z. Marusic<sup>4</sup>

<sup>1</sup>Department of Pathology and Cytology, General County Hospital Vinkovci, Vinkovci, Croatia; <sup>2</sup>Department of Pathology, General Hospital Pula, Pula, Croatia; <sup>3</sup>Oncology Clinic; and <sup>4</sup>Clinical Department of Pathology and Cytology, University Hospital Centre Zagreb, Zagreb, Croatia

doi:10.1111/ced.14779

- 53 year old male
- ulcerated thumb nodule
- several months duration
- enlarged axillary lymph node



¿SCC?



CPD • Clinicopathological case

CED  
Clinical and Experimental Dermatology

CPD

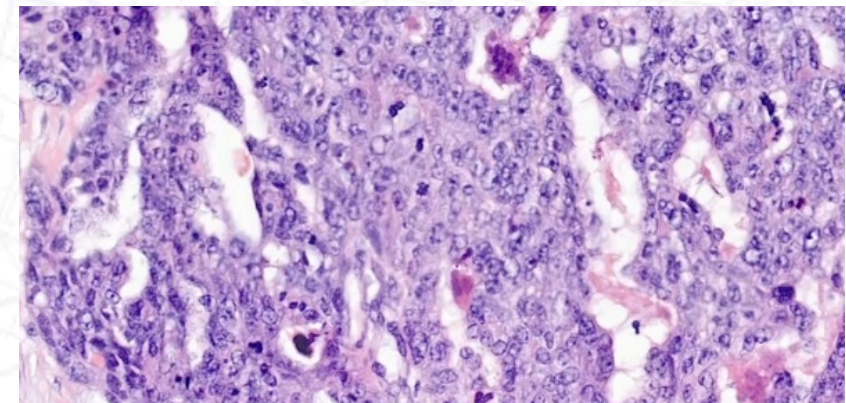
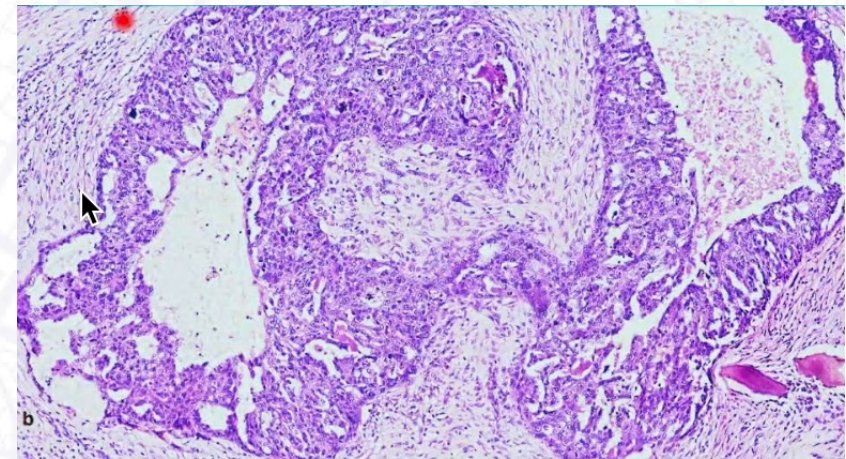
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### PATIENT

DISEASE Skin adnexal carcinoma  
NAME 3403046599, HR  
DATE OF BIRTH 15 November 1967  
SEX Male  
MEDICAL RECORD # Not given

### PHYSICIAN

ORDERING PHYSICIAN Herceg, Davorin  
MEDICAL FACILITY UHC Zagreb  
ADDITIONAL RECIPIENT None  
MEDICAL FACILITY ID 501122  
PATHOLOGIST Marusic, Zlatko

### SPECIMEN

SPECIMEN SITE Skin  
SPECIMEN ID 22142 /19 I3  
SPECIMEN TYPE Block  
DATE OF COLLECTION 20 October 2019  
SPECIMEN RECEIVED 14 November 2019

### GENOMIC SIGNATURES

Microsatellite status - MS-Stable

Tumor Mutational Burden - TMB-Low (1 Muts/Mb)

No therapies or clinical trials are associated with the Gene Alterations for this sample.

### Genomic Signatures

Microsatellite status - MS-Stable  
Tumor Mutational Burden - TMB-Low (1 Muts/Mb)

### Gene Alterations

For a complete list of the genes assayed, please refer to the Appendix.

FLT1 D1081N

Therapies approved in the EU  
 Therapies with Lack of Response

Clinical Trials

VEGF-R

### ACTIONABILITY

No therapies or clinical trials. see Genomic Signatures section

No therapies or clinical trials. see Genomic Signatures section



**AdenoCa. papilar digital**

- Raro.
- Crecimiento rápido. Agresivo.
- N+ y Mt viscerales (hasta > 20 años).
- Localización **acral** (dedos, varones) y **genital** (vulva, mujeres).

**Aggressive digital papillary adenocarcinoma: A clinicopathological study of 19 cases**

Noëlle Weingertner, MD,<sup>1</sup> Anne Gressel, JD,<sup>2</sup> Maxime Battistella, MD, PhD,<sup>1,4</sup> and Bernard Cribier, MD, PhD<sup>1,3</sup>  
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**Cutaneous Digital Papillary Adenocarcinoma**  
*A Clinicopathologic Study of 31 Cases of a Rare Neoplasm With New Observations*

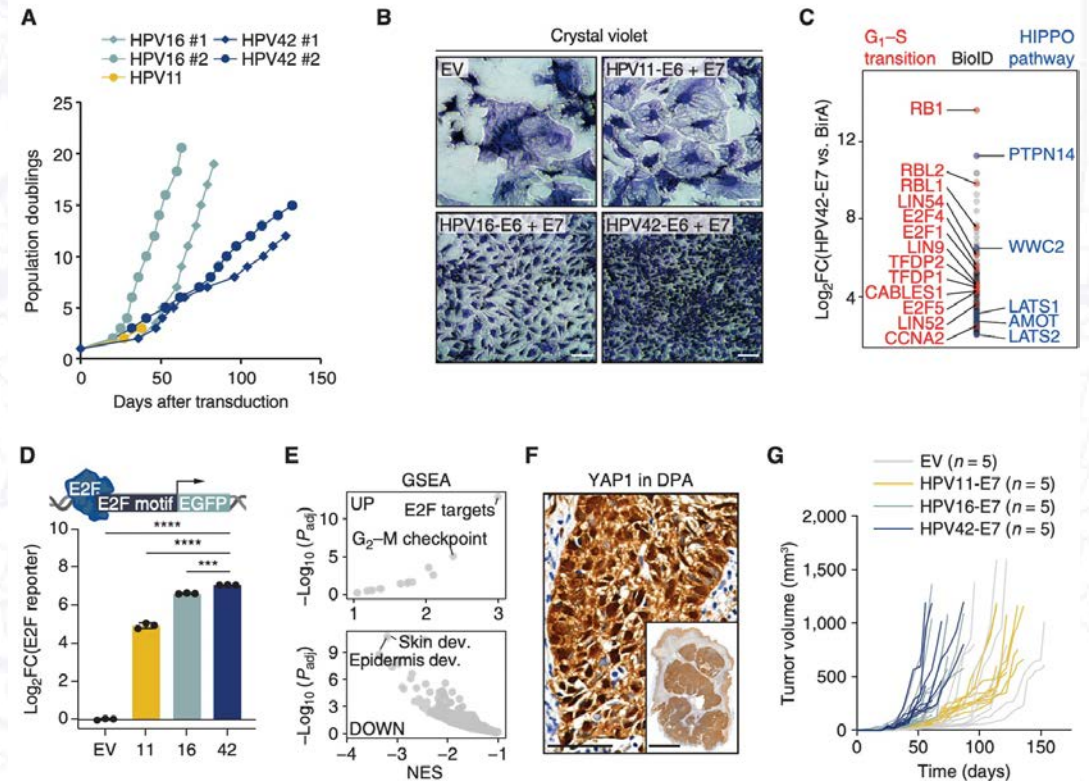
Ravi Suchak, MBChB, MSc, MRCP, MRCGP, Dip RCPath,\* Wei-Lien Wang, MD,† Victor G. Prieto, MD, PhD,‡ Doina Ivan, MD,‡ Alexander J. Lazar, MD, PhD,‡ Thomas Brenn, MD, PhD, FRCPath,‡§§ and Eduardo Calonje, MD, Dip RCPath\*

> Am J Surg Pathol. 2023 Oct 1;47(10):1077-1084. doi: 10.1097/PAS.0000000000002096. Epub 2023 Jul 31.

**Digital Papillary Adenocarcinoma in Nonacral Skin: Clinicopathologic and Genetic Characterization of 5 Cases**

Thibault Kervarrec<sup>1,2,3</sup>, Sandrine Imbeaud<sup>4</sup>, David Veyer<sup>4,5</sup>, Helene Pere<sup>4,5</sup>, Julien Puech<sup>4</sup>, Agnes Pekár-Lukacs<sup>6,7</sup>, Dorota Markiewicz<sup>7</sup>, Michael Coutts<sup>8</sup>, Anne Tallet<sup>9</sup>, Christine Collin<sup>9</sup>, Patricia Berthon<sup>2</sup>, Ignacio G Bravo<sup>10</sup>, Alice Seris<sup>3,11</sup>, Thomas Jouary<sup>3,11</sup>, Nicolas Macagno<sup>12,13</sup>, Antoine Touzé<sup>2</sup>, Bernard Cribier<sup>14</sup>, Maxime Battistella<sup>15</sup>, Eduardo Calonje<sup>7</sup>

**RESEARCH BRIEF**  
**Human Papillomavirus 42 Drives Digital Papillary Adenocarcinoma and Elicits a Germ Cell-like Program Conserved in HPV-Positive Cancers**





## AdenoCa. papilar digital

- Raro.
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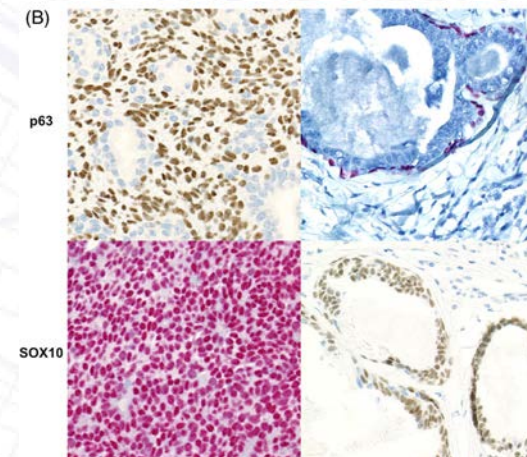
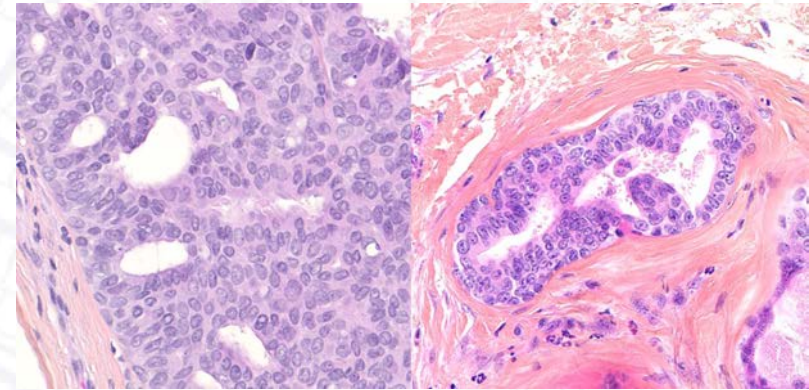
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Pitfall

Adenoma tubular





AdenoCa. papilar digital

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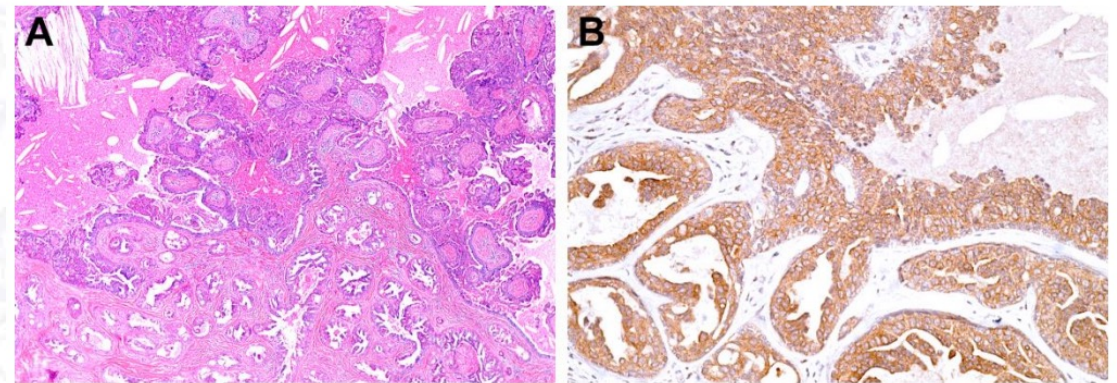
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**Pitfall**

Adenoma tubular

BRAF V600E



Comment > *J Cutan Pathol.* 2023 Jun;50(6):577-579. doi: 10.1111/cup.14430. Epub 2023 Apr 14.

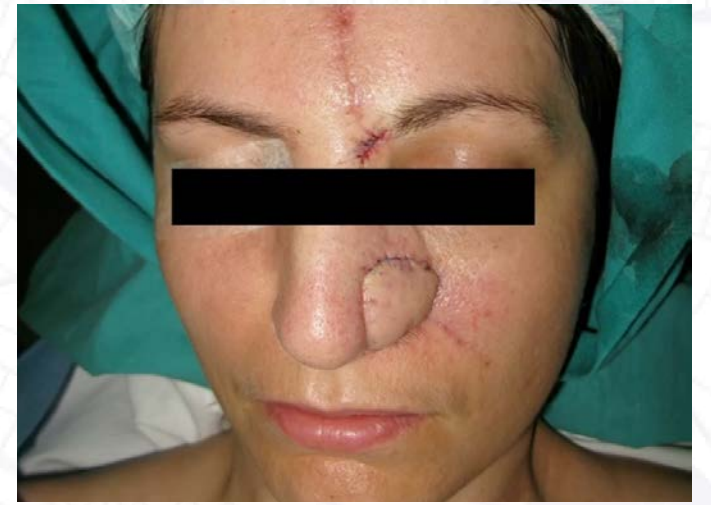
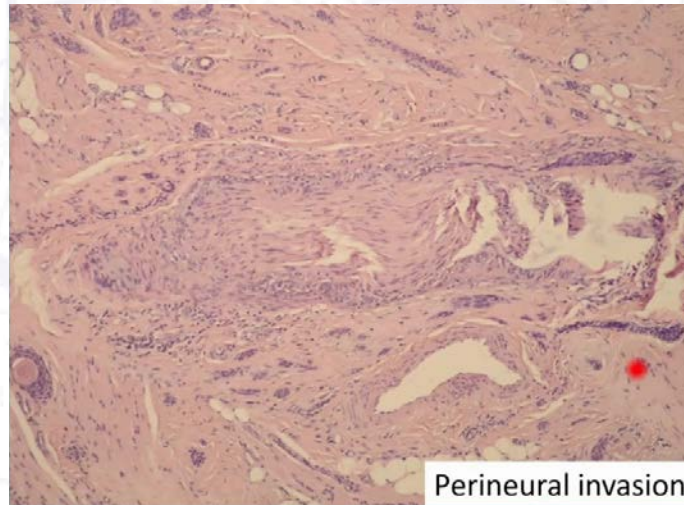
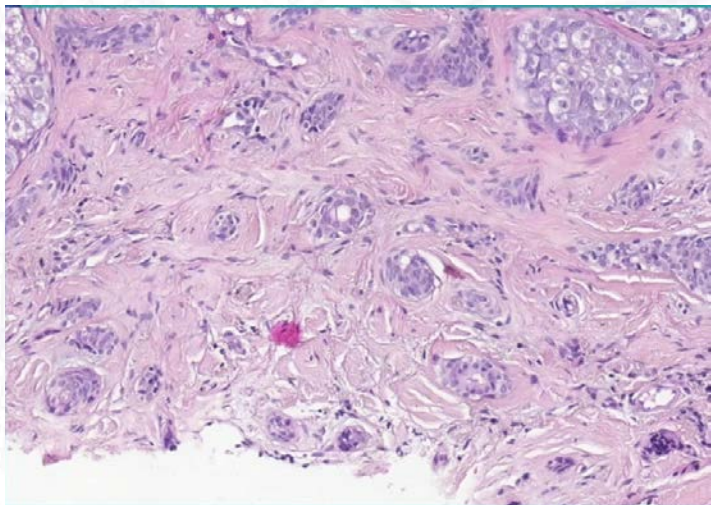
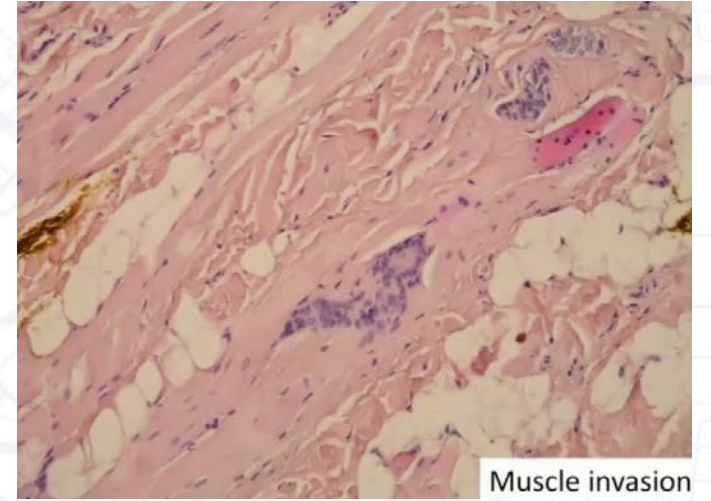
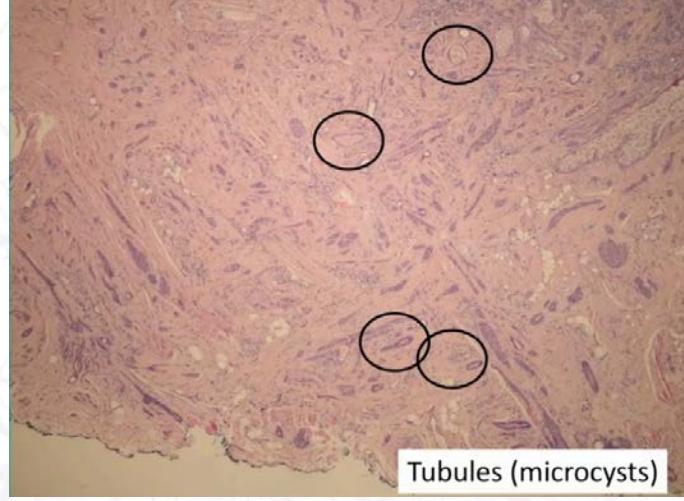
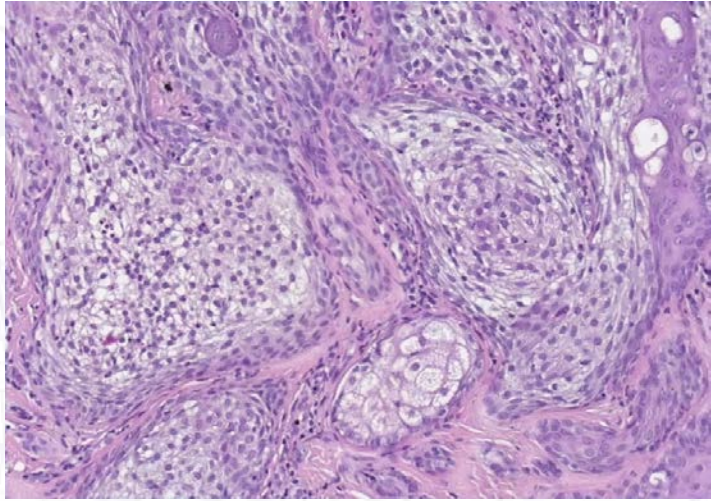
**Acral BRAF-mutated tubular adenoma should be distinguished from HPV42-related digital papillary adenocarcinoma**

Thibault Kervarrec<sup>1 2 3</sup>, Klaus J Busam<sup>4</sup>





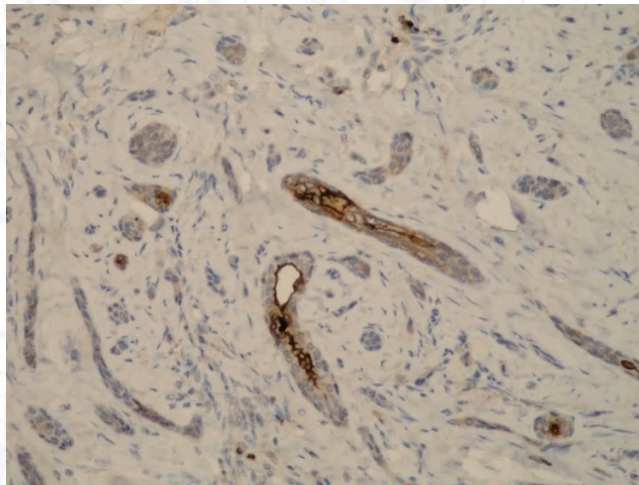






## Carcinoma aneal microquístico

- Predominio en mujeres
- Localmente agresivo. 40-60% recidivas. Rara metástasis
- Mohs?



CEA

**EA CONGRESS**  
**ADV**

Modern Pathology (2020) 33:1092–1103  
<https://doi.org/10.1038/s41379-019-0424-4>

ARTICLE

**Next-generation sequencing implicates oncogenic roles for p53 and JAK/STAT signaling in microcystic adnexal carcinomas**

May P. Chan<sup>1,2,3</sup> · Komal R. Plouffe<sup>1,4,5</sup> · Chia-Jen Liu<sup>1,4</sup> · Nallasivam Palanisamy<sup>6</sup> · Shannon Carskadon<sup>6</sup> · Lili Zhao<sup>7</sup> · Rosalynn M. Nazarian<sup>8</sup> · Alison B. Durham<sup>2,3</sup> · Timothy M. Johnson<sup>2,3</sup> · Aleodor A. Andea<sup>1,2,3</sup> · Rajiv M. Patel<sup>1,2,3</sup> · Lori Lowe<sup>1,2,3</sup> · Douglas R. Fullen<sup>1,2,3</sup> · Noah A. Brown<sup>1</sup> · Scott A. Tomlins<sup>1,3,4,5</sup> · Aaron M. Udager<sup>1,4</sup> · Paul W. Harms<sup>1,2,3,4</sup>

USCAP

Yu et al. *World Journal of Surgical Oncology* (2022) 20:142  
<https://doi.org/10.1186/s12957-022-02601-6>

World Journal of Surgical Oncology

RESEARCH Open Access

**Four calcium signaling pathway-related genes were upregulated in microcystic adnexal carcinoma: transcriptome analysis and immunohistochemical validation**

Shuaxia Yu<sup>1,2†</sup>, Yang Wang<sup>3†</sup>, Baijie Tang<sup>1,2</sup>, Xiang Liu<sup>1,2</sup>, Linhong Song<sup>1,2</sup>, Gang Xu<sup>1,2</sup>, Hong Zhu<sup>1,2\*</sup> and Huajun Sun<sup>1,2\*</sup>

	Normal	MAC	Syringoma	Trichoepithelioma	Basal cell carcinoma
HE					
CACNA1S					
MYLK3					
ATP2A1					
RYR1					

**Fig. 3** Immunohistochemical analysis of the four genes. Calcium voltage-gated channel subunit alpha 15 (CACNA1S), myosin light chain kinase 3 (MYLK3), ryanodine receptor 1 (RYR1), and ATPase sarcoplasmic/endoplasmic reticulum Ca<sup>2+</sup> transporting 1 (ATP2A1) were all upregulated in MAC. HE staining pictures: **A**, 100×; **B**, **C**, 10×; **D**, **E**, 20×; IHC staining pictures: 200×

## Improved Margin Control of Microcystic Adnexal Carcinoma After Mohs Micrographic Surgery Compared With Wide Local Excision

Sharmitha Yerneni<sup>1</sup>, Fadi Murad<sup>2</sup>, Chrysalynne D Schmults<sup>2</sup>, Emily S Ruiz<sup>2</sup>



# MELANOMA



**Franco Rongioletti**  
Melanoma

**Table 1. The Melanocytic Pathology Assessment Tool and Hierarchy for Diagnosis Version 2.0**

Class	Risk of tumor progression	Probability of progression, No. per population	Treatment recommendation	Examples <sup>a</sup>
0	NA	NA	Consider repeat biopsy	Nondiagnostic or unsatisfactory
I: <b>low grade</b>	Very low risk for continued proliferation and progression to invasive melanoma	1 in 10 000 to 1 in 100 000	No further treatment <sup>b</sup>	Common acquired nevi, no atypia Congenital nevi, no atypia Atypical and dysplastic nevi, low-grade atypia <sup>c</sup> Common blue nevi
II: <b>high grade</b>	Low risk for progression to invasive melanoma	1 in 100 to 1 in 1000	Re-excision with margins <1 cm <sup>b</sup>	Atypical and dysplastic nevi, high-grade atypia <sup>c</sup> Spitz nevi, tumors or melanocytomas, and atypical variants Cellular blue nevi or melanocytomas and atypical variants Plexiform or deep penetrating nevi or melanocytomas Lentigo maligna Melanoma in situ
III: melanoma <b>pT1a</b>	Relatively low risk for local and regional metastasis	1 in 10 to 1 in 100	Follow national guidelines (eg, wide excision with 1 cm margins) <sup>b</sup>	Melanoma AJCC stage pT1a, <0.8 mm Breslow thickness Melanoma pT1a lr (low risk) <sup>d</sup> Melanoma pT1a <sup>e</sup>
IV: melanoma <b>≥pT1b</b>	Moderate to increased risk for regional or distant metastasis	1 in 2 to 1 in 10	Follow national guidelines (eg, wide excision with 1-2 cm margins <sup>b</sup> and consideration of sentinel lymph node staging and other therapies)	Melanoma AJCC stage pT1b or greater, ≥0.8 mm Breslow thickness

## Classification of unusual histologic variants of cutaneous melanoma

(Rongioletti F, Smoller BR. J Cutan Pathol 2005;32)

1. Silhouette
2. Stromal changes
3. Cytologic features
4. Combined patterns (silhouette+cytology)



**Consensus Statement | Pathology and Laboratory Medicine**  
**Revision of the Melanocytic Pathology Assessment Tool and Hierarchy for Diagnosis Classification Schema for Melanocytic Lesions**  
**A Consensus Statement**



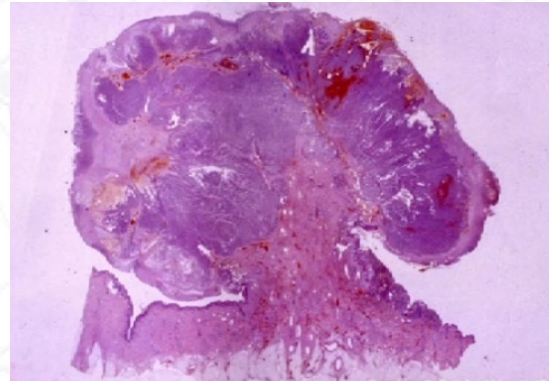
## MM polipoideo

- Variante de MM nodular.
- Peor pronóstico.
- **↑ ulceración y Breslow.**

> Melanoma Res. 2023 Jun 1;33(3):257-261. doi: 10.1097/CMR.0000000000000886. Epub 2023 Mar 2.

### Prognosis of polypoid melanoma: a comparative study with non-polypoid melanomas

Velma Y Jasso-Sosa <sup>1</sup>, Leonardo S Lino-Silva <sup>1</sup>, Marín G Escobar-Jiménez <sup>1</sup>, Joab R Galván-Bustillos <sup>1</sup>, Dorian Y García-Ortega <sup>2</sup>, Rosa A Salcedo-Hernández <sup>2</sup>, César Zepeda-Najar <sup>3</sup>, Pedro Frías-Fernández <sup>4</sup>

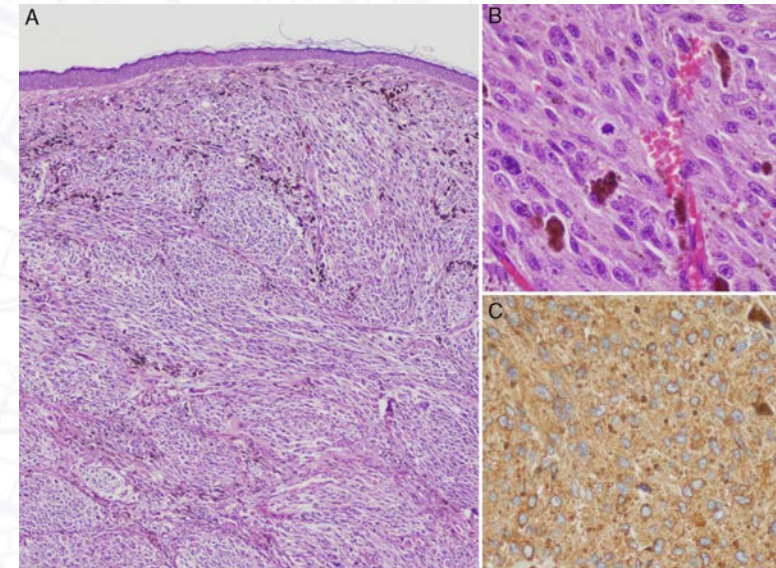
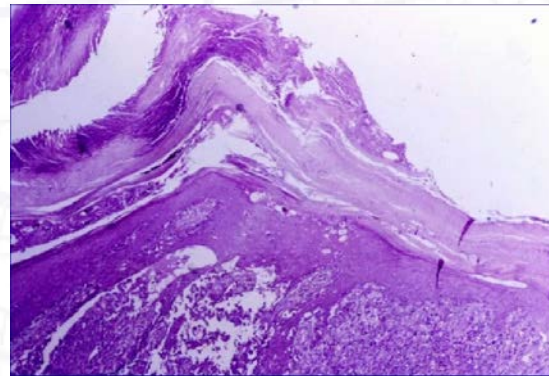


## MM dérmico primario

- *Challenging.*
- NO metástasis en estudio de extensión.
- Supervivencia prolongada.
- Mejor pronóstico que MM convencional de = espesor.

## MM verrucoso (QS-like)

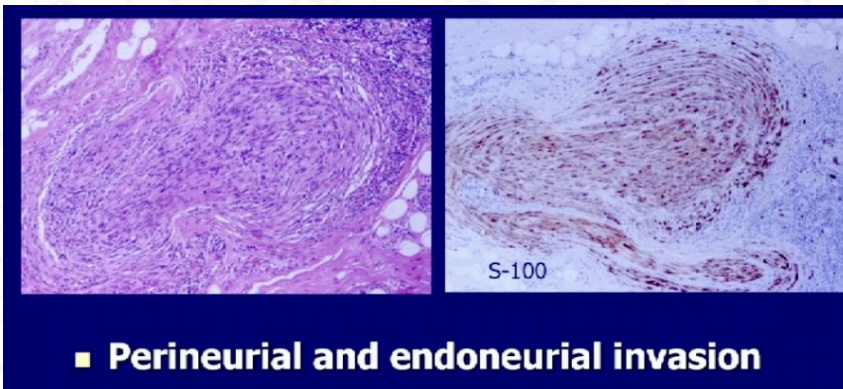
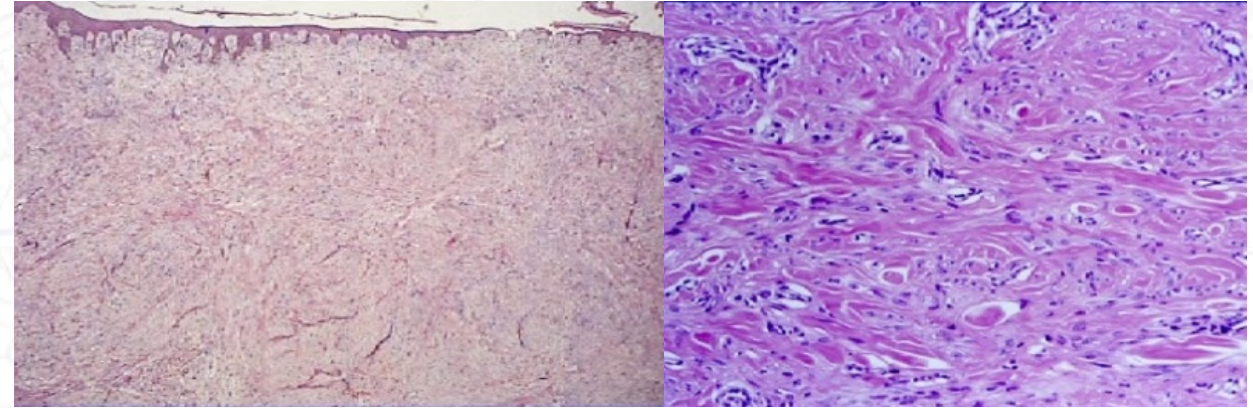
- *Misdiagnosis* 50%.
- Pronóstico = MM convencional.
- Acantosis y papilomatosis.
- Crecimiento pagetoide.
- ¿Breslow sobrestimado?



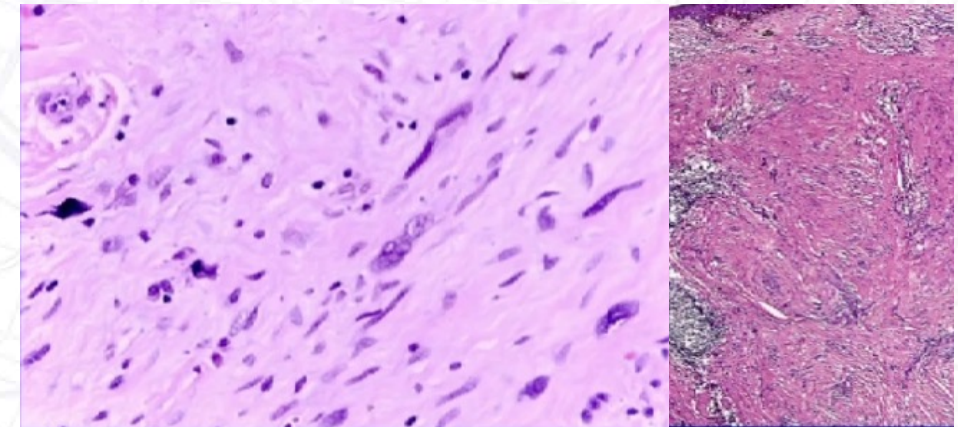


## MM desmoplásico (neurotrópico)

- 4% del total.
- Fotoexposición (asociado a LM).
- ↑ carga mutacional (NF-1). **NO** BRAF, NRAS o c-kit.
- Recurrencia local. Rara metástasis.
- ¿Mejor pronóstico? **NO** si neurotropismo.



*Pitfall*: cicatriz, DF



Fibroblast-like atypical cells

Lymphoid infiltrates

IHQ: S-100 y SOX-10 +. HMB-45 y Melan A -

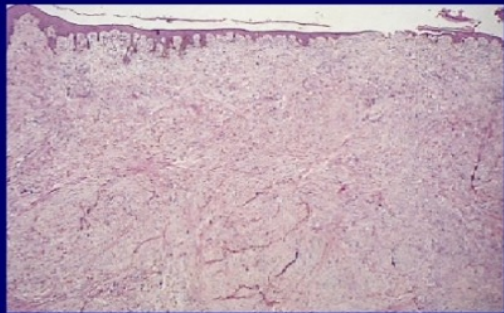


¿Evitar BSGC en MM desmoplásico puro?

## Two subtypes of desmoplastic melanoma

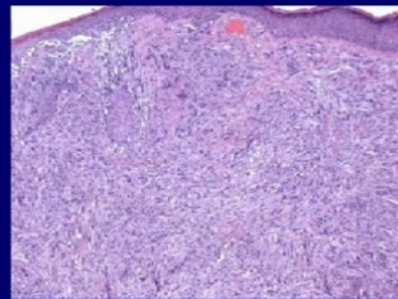
### 1. Pure

desmoplasia is prominent throughout the full tumor (90%)



### 2. Myxed

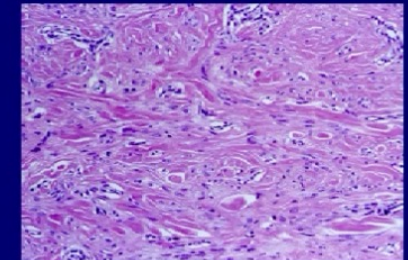
fibrosis is present in only part of an otherwise non desmoplastic melanoma



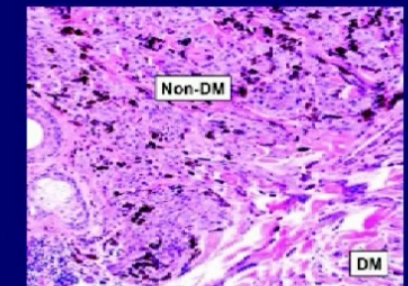
## Clinical utility of classifying desmoplastic melanoma into pure and mixed subtypes

(McClain et al. J Cutan Pathol 2009;36; Hawkins et al. Ann Surg Oncol 2005;12)

- **Pure subtypes** are unlikely to disseminate to regional lymphnodes and are associated with a more favorable outcome than **mixed subtype** or **conventional type**
- Sentinel node biopsy restricted to only mixed type?
- Different mutation pattern of the 2 variants



Pure



Mixed



## Tumores spitzoides

Front Oncol. 2022; 12: 889223.

Published online 2022 Jun 7. doi: [10.3389/fonc.2022.889223](https://doi.org/10.3389/fonc.2022.889223)

PMCID: PMC9209745

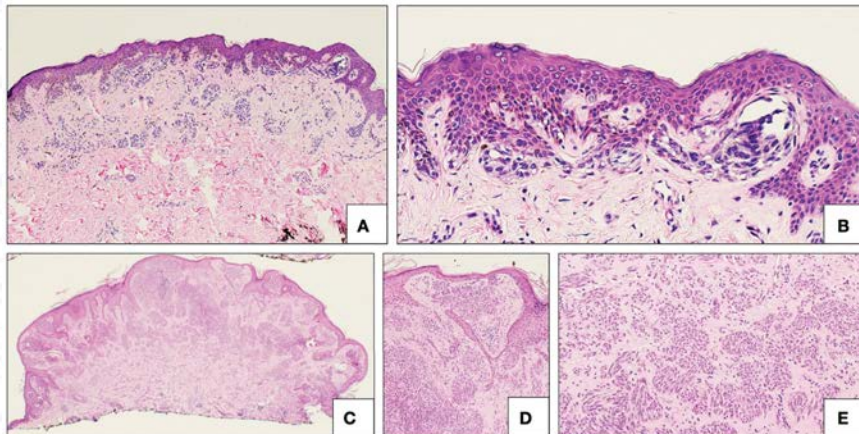
PMID: [35747831](https://pubmed.ncbi.nlm.nih.gov/35747831/)

### The Spectrum of Spitz Melanocytic Lesions: From Morphologic Diagnosis to Molecular Classification

Tiffany W. Cheng,<sup>1</sup> Madeline C. Ahern,<sup>1</sup> and Alessio Giubellino<sup>2,1,2,\*</sup>

TABLE 2 | Histopathologic Characteristics of Spitz Tumors.

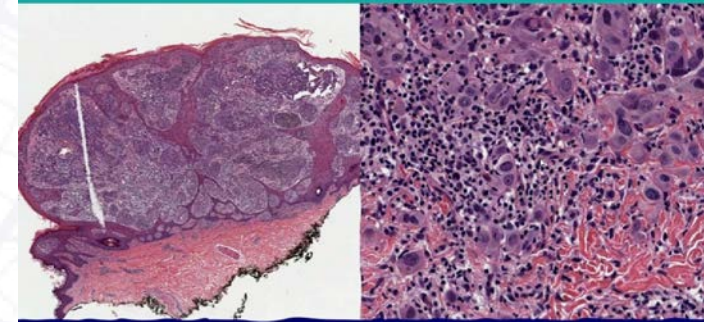
Histopathologic Feature	Spitz Nevus	Atypical Spitz Tumor	Spitzoid Melanoma
<i>Size</i>	<6 mm	6-10 mm	>1 cm
<i>Symmetry</i>	Symmetrical	May be symmetrical or asymmetrical	Asymmetrical
<i>Circumscription</i>	Well-Circumscribed	May be well or poorly circumscribed	Poorly circumscribed
<i>Ulceration</i>	Rare	More common than SN	<u>Present</u>
<i>Epithelioid/Spindle Cell Morphology</i>	Can be primarily epithelioid, primary spindle cell, or combination of both; well-organized into dermo-epidermal nests found in banana bunch configuration	Can be primarily epithelioid, primarily spindle cell, or combination of both; greater epithelioid predominance in AST with MAP3K8 alterations; greater nuclear pleomorphism and higher nuclear:cytoplasmic ratio	Can be primarily epithelioid, primarily spindle cell, or combination of both; irregular nesting patterns; fascicular melanocyte nests in SM with ALK fusions; dermal rosette structures in SM with NRTK1 fusions; greater epithelioid predominance in SM with MAP3K8 fusions
<i>Pagetoid Spread</i>	Uncommon, typically focal if present	If present, typically <u>peripheral</u> , involves upper epidermis	<u>Present, may be extensive</u>
<i>Kamino Bodies</i>	Present, located at periphery of melanocyte nests	Infrequent, may be smaller in size	Rare
<i>Melanocyte Maturation</i>	Commonly Present	May be absent	<u>Absent</u>
<i>Mitotic Activity</i>	Low, 0-2/mm <sup>2</sup>	<u>Moderate, 2-6/mm<sup>2</sup></u>	<u>High, &gt;6/mm<sup>2</sup></u>
<i>Lymphocytic Inflammatory Infiltrate</i>	Commonly present	<u>May be present</u>	<u>May be present</u>
<i>Multinucleation</i>	May be present, typically found in SN of primarily epithelioid origin	May be present in AST with MAP3K8 alterations	Rare
<i>Epidermal Hyperplasia</i>	Present	Rare	Rare





## Melanoma de Spitz (tumor de Spitz maligno)

- Espectro de tumores de Spitz (**H-RAS**, fusiones de ROS1, ALK)
- Jóvenes.
- Buen pronóstico.

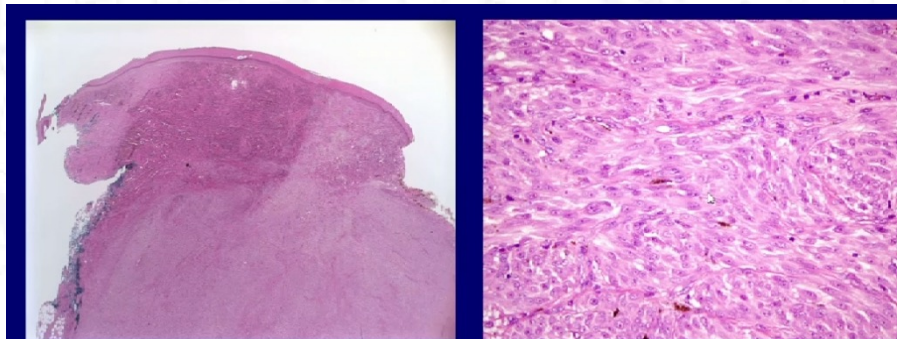


### Spitz/Spitzoid melanoma

Lack of maturation and brisk inflammation with irregular disposition

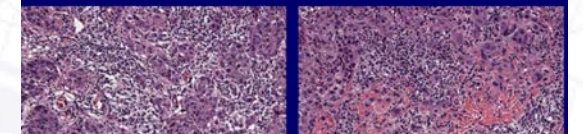
## Melanoma spitzoide

- ¿Melanoma convencional? (**BRAF**)
- Adultos.
- Peor pronóstico.



Cellularity resembles enlarged epithelioid and fusiform cells of Spitz nevus  
Growth pattern in solid sheets of cells

### Spitz/Spitzoid melanoma

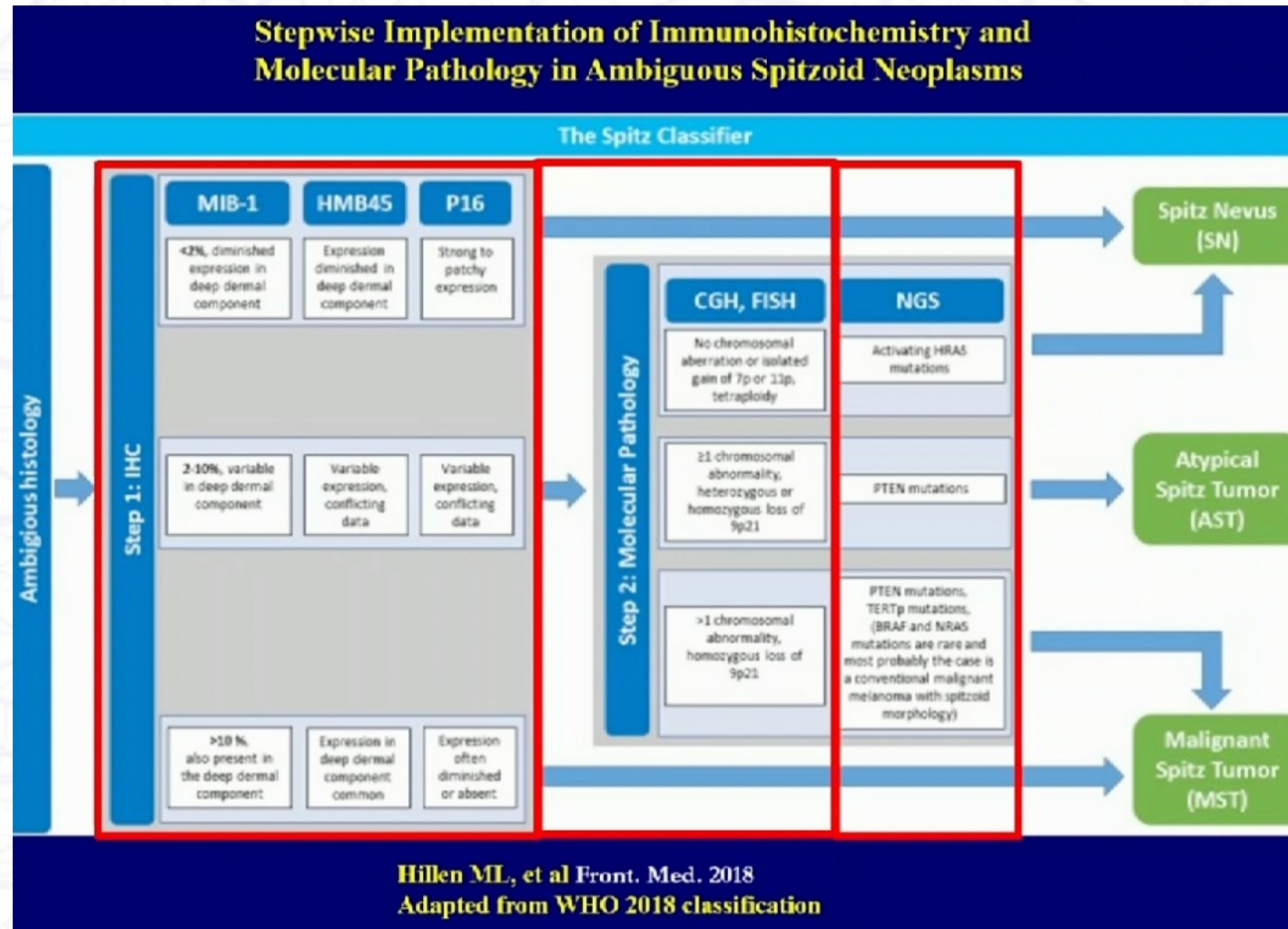


No maturation

Mitoses at the base

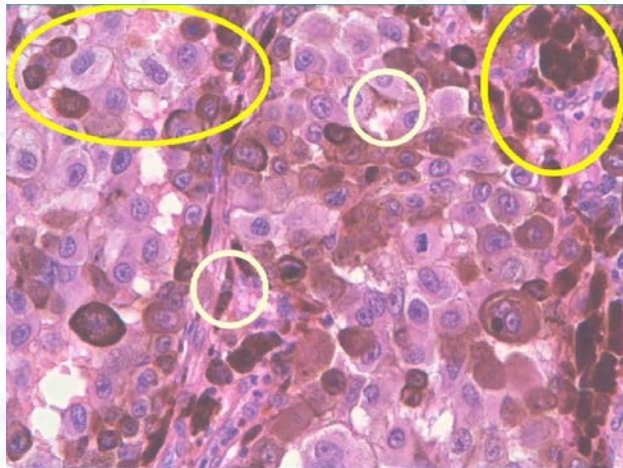


## Stepwise Implementation of Immunohistochemistry and Molecular Pathology in Ambiguous Spitzoid Neoplasms





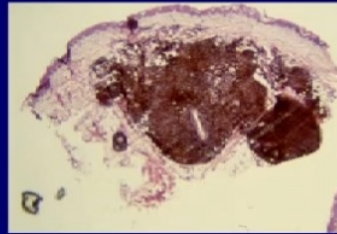
Melanoma *animal-type*



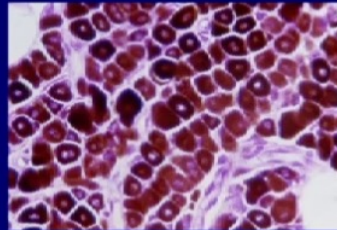
- The combination of striking melanin deposition and relatively indolent behavior has led to abandon the denomination animal-type melanoma in favor of the umbrella term **"Pigmented epithelioid melanocytoma"**

**Pigmented epithelioid melanocytoma**

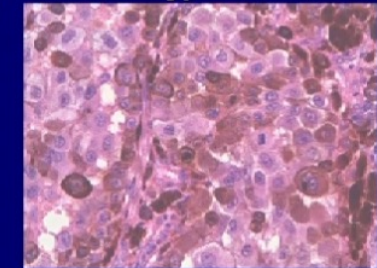
Zembowicz A, Carney JA, Mihm MC. *Am J Surg Pathol.* 2004;28  
 Mandal et al *Am J Surg Pathol.* 2009;33



Epithelioid blue nevus



Animal-type melanoma



- A clinical-anatomic "entity" said to include both benign and malignant pigmented melanocytic neoplasms ranging from epithelioid blue nevus to animal-type melanoma characterized by an indolent course
- PRKAR1A-inactivated melanocytoma

PRKAR1A y PRKCA



## Melanocytic Tumour of Uncertain Malignant Potential (MeiTUMP) A Diagnostic Dilemma in Children

Main author: Diana-Maria CETINĂ<sup>1</sup>

Co-author: Ioana BILIUȚĂ<sup>1</sup>

Scientific coordinators: Elena Diana OLTEANU<sup>2</sup>, Annamaria FÜLOP<sup>2</sup>, Prof. Dr. Gabriela Adriana FILIP<sup>1</sup>, Rodica Voichița COSNAROVICI<sup>2</sup>

Affiliated: *University of Medicine and Pharmacy "Iuliu Hațieganu" Cluj-Napoca, Romania<sup>1</sup>, Oncology Institute "Prof. Dr Ion Chiricuță" Cluj-Napoca, Romania<sup>2</sup>*



### INTRODUCTION

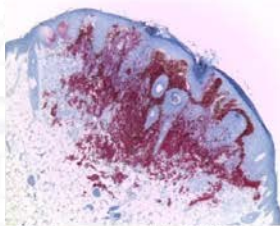
The histopathological diagnosis and classification of melanocytic skin tumors is a practical challenge in paediatric dermatopathology. Sometimes, the major difficulty is distinguishing between benign and malignant microscopic patterns of a skin lesion. These borderline entities are defined as melanocytic tumours of uncertain malignant potential (MeiTUMPs) [1].

### CASE REPORT

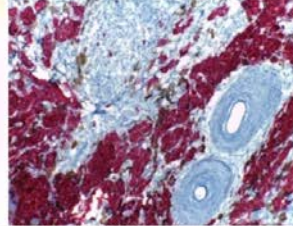
We are reporting the case of a 12-year-old female patient who was referred to a local hospital for a pigmented skin lesion which recently increased in size. The infracentimetric lesion was located on the upper posterior trunk. Due to dermoscopy findings, the lesion was excised, and the initial histopathological diagnosis was nodular melanoma. Reevaluation of the lesion performed in our oncology center raised the suspicion of a MeiTUMP. Microscopy described a proliferation of large rather fusiform melanocytes arranged in confluent junctional nests in a hyperplastic epidermis with lymphocytic infiltrate. Minimal cell atypia and no mitotic activity were identified. HMB45 was positive and Ki67 index was 20%. Due to the diagnosis difference, other opinions were requested from experts. Two more versions were obtained: compound blue nevus (CBN) and pigmented epithelioid melanocytoma (PEM) with loss of PRKARIA expression. The RNA-Sequencing revealed PRKARIA-ACTB fusion. As ultrasonography (US) revealed bilateral axillary polyadenopathies, sentinel lymph node biopsy (SNB) was performed, showing subcapsular metastases with the same histopathological pattern. PET scan revealed no FDG up-take after the excision. The patient underwent 3 mg/kg Nivolumab immunotherapy every 4 weeks for 1 year. The follow-up including blood tests, US check and CT scan once in 6 months did not show the recurrence. The patient has been free of disease for 2 years.

### DISCUSSIONS

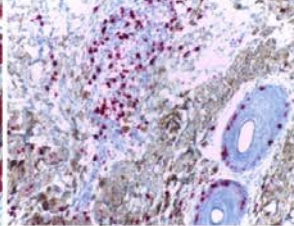
The studies show that MeiTUMPs are not a well-defined histological entity. They have a predilection for paediatric population. The diagnosis is made by IHC, but the markers used are frequently nonspecific. In a considerable number of cases they metastasize locally and systemically only in exceptional cases [2]. Local excision should be performed in all cases, but studies show that positive SNB has low importance in diagnosis and prognosis [1]. PEM represents one of the most common MeiTUMP [1] although it is recognized by the WHO 2018 guideline as an individual lesion. It is ruled out of MeiTUMP category by PRKCA fusion [2], but inactivation of PRKARIA is also highly correlated with the diagnosis of PEM [3]. The PRKARIA-ACTB fusion remains yet undescribed in literature, but sustains the diagnosis. As a class characteristic of MeiTUMPs, recurrence and mortality rates are low [4]. This condition should be treated as a high grade melanocytoma, according to WHO [2].



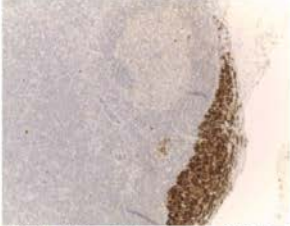
Obj. 4x: tegument containing HMB45+ melanocytes after depigmentation; symmetrical architecture; epidermal hyperplasia



Obj. 20x: HMB45+ melanocytes after depigmentation



Obj. 20x: melanocytes with abundant pigment; Ki67=5-10% of the lymphocytes nuclei one month after biopsy



Obj. 4x: SNB containing subcapsular HMB45+ melanocytic proliferation

### CONCLUSION

Here we report a case of a rare paediatric skin tumour. Owing to their frequency and non-specific diagnostic methods, individual entities of MeiTUMPs are challenging to be differentiated from one another. The positive diagnosis is often made after being examined by experienced dermatopathologists, as was the case of our patient.

### REFERENCES

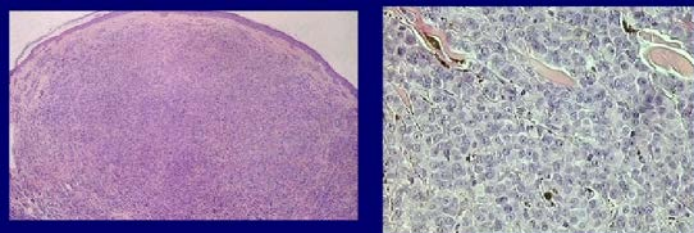
1. Varey AHR, Williams GJ, Lo SN, Taing CY, Maurichi A, Santinami M, Scolyer RA, Thompson JF. Clinical management of melanocytic tumours of uncertain malignant potential (MeiTUMPs), including melanocytomas: A systematic review and meta-analysis. *J Eur Acad Dermatol Venereol.* 2023 May;37(5):859-870.
2. Ferrara G, Argenziano G. The WHO 2018 Classification of Cutaneous Melanocytic Neoplasms: Suggestions From Routine Practice. *Front Oncol.* 2021 Jul 2;11:675296.
3. Cohen JN, Joseph NM, North JP, Onodera C, Zembowicz A, LeBoit PE. Genomic Analysis of Pigmented Epithelioid Melanocytomas Reveals Recurrent Alterations in PRKARIA, and PRKCA Genes. *Am J Surg Pathol.* 2017 Oct;41(10):1333-1346
4. Ensslin CJ, Hübner BF, Lee EH, Nehal KS, Busam KJ, Rossi AM. Atypical Melanocytic Proliferations: A Review of the Literature. *Dermatol Surg.* 2018 Feb;44(2):159-174

- Adenopatías axilares bilaterales.
- Nivolumab.
- TLD: 2 años.



## MM nevoide

- *Nightmare.*
- Variantes: 1) papilomatosa. 2) *dome-shaped*.
- **HMB-45 y KI-67** ↑ en dermis profunda.



- Lack of maturation
- Cytologic atypia
- Mitoses in the dermal component

*"A melanoma that I have diagnosed as nevus, and I wish I hadn't»*  
 (Mckee PH. Histopathology. 2010)

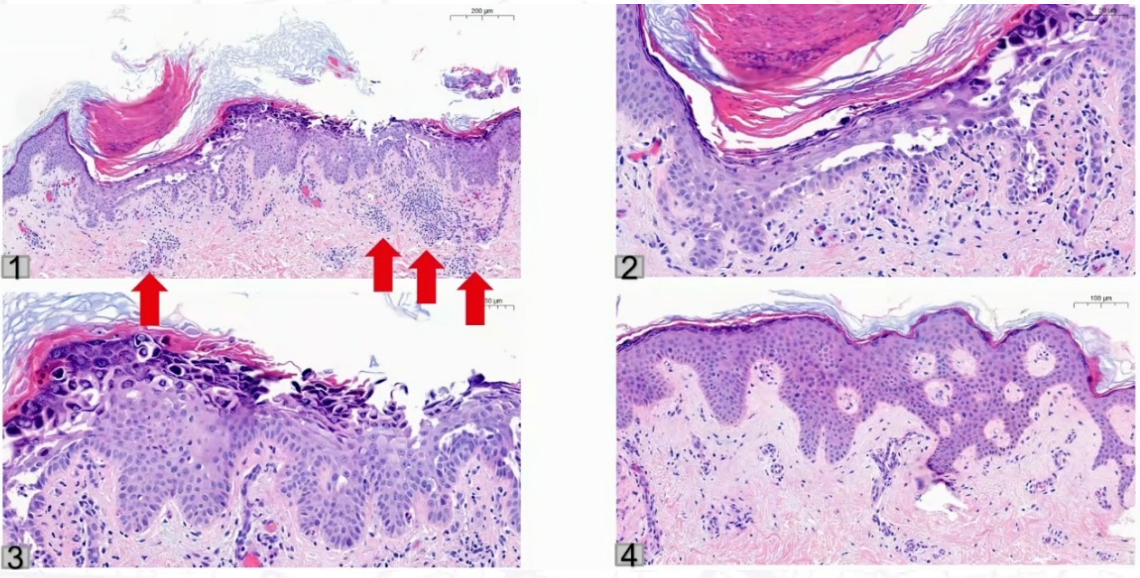
*The diagnosis of the day after*  
 (Rongioletti)

## Take-home message:

- **Pure desmoplastic:** > recurrences < metastases?
- **Neurotropic:** less survival?
- **Balloon cell:** > skin metastases?
- **Spitz melanoma:** better prognosis in young individuals
- **Animal-type:** more indolent behaviour
- **Malignant blue nevus:** aggressive with late-onset metastases
- **Clear cell sarcoma:** aggressive with recurrences and metastases

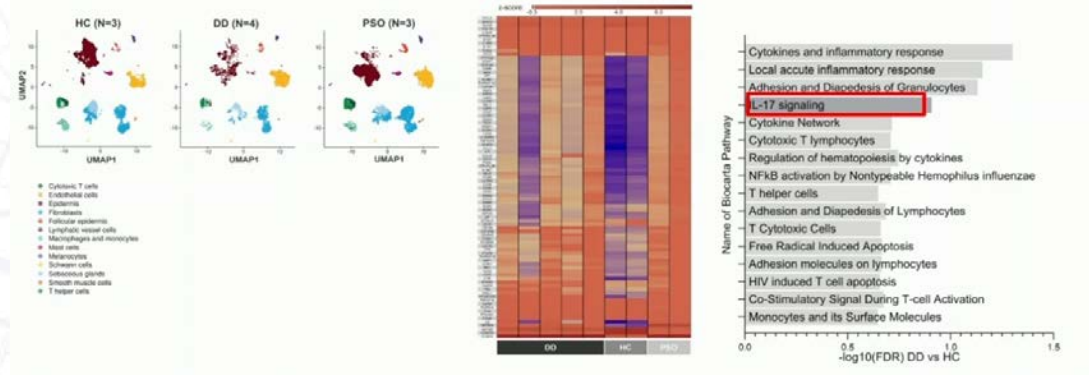


**LINFOPROLIFERATIVOS**



**Wolfram Hoetzenecker**  
Lymphomas

**Increased expression of IL-17 signaling related genes in lesional DD skin**

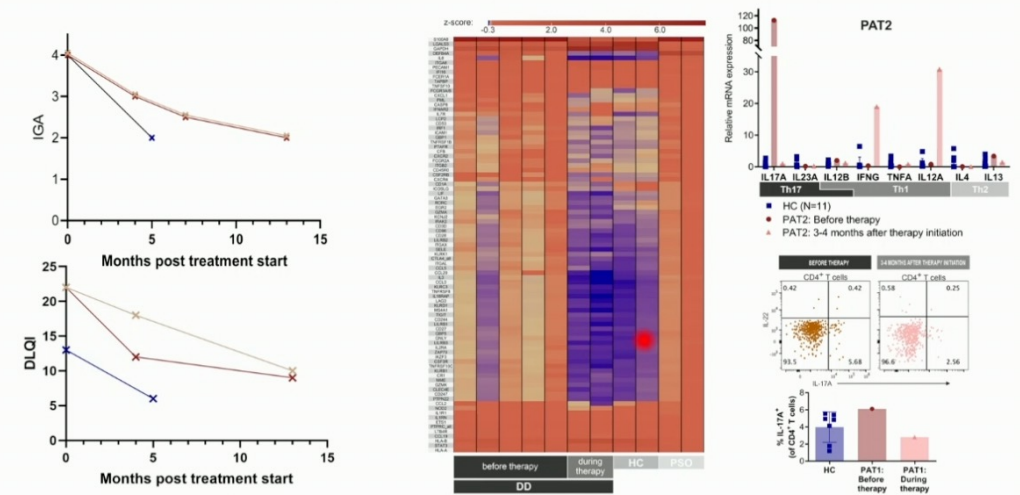




## Successful therapy of DD patients with biologics



## Successful therapy reduces Th17 cells in patients





## Post-transplant lymphoproliferative disorder, monomorphic type, in a kidney transplant patient following administration of anti-influenza vaccine



Miriam Fernández-Parrado<sup>1</sup>, Jacques Alzoghby-Abi Chaker<sup>2</sup>, Angel Fernandez-Flores<sup>3</sup>, Daniel Nieto Rodríguez<sup>4</sup>, Elena Sendagorta<sup>4</sup>, Luis Miguel Valladares<sup>5</sup> de 1 Hospital Universitario de Navarra, Dermatology, 2 Complejo Asistencial Universitario de León, Pathology, 3Hospital Universitario del Bierzo, Dermatopathology, Ponferrada, Spain, 4 Hospital Universitario La Paz, Dermatology, Madrid, Spain, 5 Complejo Asistencial Universitario de León, Dermatology, Leon, Spain

11-14 OCTOBER 2023 EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY

### INTRODUCTION

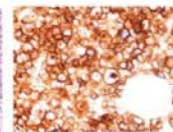
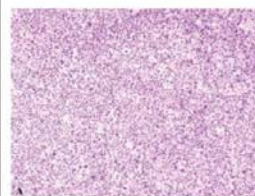
Post-transplant lymphoproliferative disorders (PTLD) are an uncommon complication in patients who have undergone solid organ transplantation. Their clinical presentation is often dramatic, leading to suspicion of aggressive lymphoma.

These proliferative disorders are unequally represented in the 2 main current classifications of lymphomas: the International Consensus Classification and the WHO classification (fifth Edition). In the International Consensus Classification, the group of immunodeficiency-associated lymphoproliferative disorders is recognized, which includes PTLD (including non destructive forms, polymorphic forms, monomorphic forms, and post-transplant Hodgkin lymphoma), and other iatrogenic lymphoproliferative disorders (Table1). In the fifth edition of the WHO classification, the monomorphic disorder is not reflected as such.

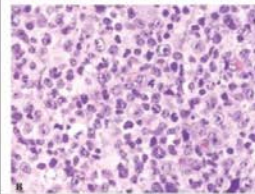
### CLINICAL CASE

A 49-year-old woman came to the clinic with disseminated skin lesions that appeared day after receiving the influenza A. vaccine (1 dose of Vaxigrip) and increased in number for 2 weeks until the day of the consultation. The patient presented with B symptoms (with evening low-grade fever and nocturnal sweating).

On examination, multiple skin-colored nodules were observed, disseminated over the trunk, upper extremities, axillae, and the neck. The nodules were elastic, non erythematous, non pruritic, non painful, and not adherent to Deep planes. Ultrasound examination showed that they were subcutaneous nodules (Figure 1).



**Figure 2. Histology** A. Subcutaneous infiltration by a lymphoproliferative disorder composed of atypical large cells (Hematoxylin-eosin  $\times 100$ ). B. At higher magnification, numerous mitoses and apoptotic cells were observed. Many cells had a prominent nucleolus (hematoxylin-eosin  $\times 400$ ).



**Figure 3. PET-scan** showed numerous adenopathies with uptake at supra and infradiaphragmatic levels, subcutaneous nodules, involvement of the right submandibular gland, pancreas, both pleurae, bones, dorsal musculature, and the peritoneum.

### DISCUSSION

We present a case of PTLD coinciding with an antiviral vaccine for influenza. This is a very rare event, and we are only aware of occasional similar cases with the influenza vaccine and with the anti-COVID-19 vaccine in the recent pandemic. There is also a published case of paradoxical response to an influenza vaccine in which the patient (a 27 year-old man) developed an aggressive lymphoid proliferation of Tcells, EBER-negative, which started at the vaccine site, but extended and killed the patient. Unlike our case, the one described by these authors was CD30-negative.

Cases of pseudolymphomas and various lymphoid proliferations in the areas of injection of the influenza vaccine are not uncommon.

In all these cases of local response, pseudolymphomatous reactions are confined to the cutaneous area of the vaccine injection site or to regional lymph nodes. In contrast, in our case, a disseminated lymphoproliferative disorder developed. Cutaneous involvement occurs in only 5% of PTLD cases, with most cases being monomorphic (more frequently B-cell than T-cell).

Cutaneous involvement occurs in only 5% of PTLD cases,

**TABLE 1.** Classification of Lymphoproliferative Disorders Associated With Immunodeficiency, According to the International Consensus Classification

Immunodeficiency-Associated Lymphoproliferative Disorders
Post-transplant lymphoproliferative disorders
Nondestructive post-transplant lymphoproliferative disorders
Plasmacytic hyperplasia post-transplant lymphoproliferative disorder
Infectious mononucleosis post-transplant lymphoproliferative disorder
Follicular hyperplasia post-transplant lymphoproliferative disorder
Polymorphic post-transplant lymphoproliferative disorder
Monomorphic post-transplant lymphoproliferative disorder
B-cell type
T-cell type
Classic Hodgkin lymphoma post-transplant lymphoproliferative disorder
Other iatrogenic immunodeficiency-associated lymphoproliferative disorders

with most cases being monomorphic (more frequently B-cell than T-cell).

Patients with solid organ transplantation usually receive the influenza vaccine annually. It is worth asking why this type of lymphoid proliferation after influenza vaccination is not more common in these patients. One of the reasons is the low immunogenicity of the type of vaccine used. Thus, for example, the vaccine used in our case (Vaxigrip) is made of inactivated Split virus and is characterized by inducing a lower intensity and duration of immune response than other types of vaccines.

### REFERENCES

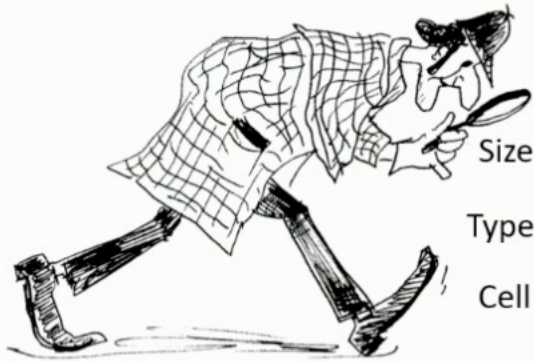


Post-transplant  
lymphoproliferative  
disorder (PTLD)



## VASCULITIS

5-skin limited vasculitis or systemic vasculitis?



Size

Type of vessel

Cell type



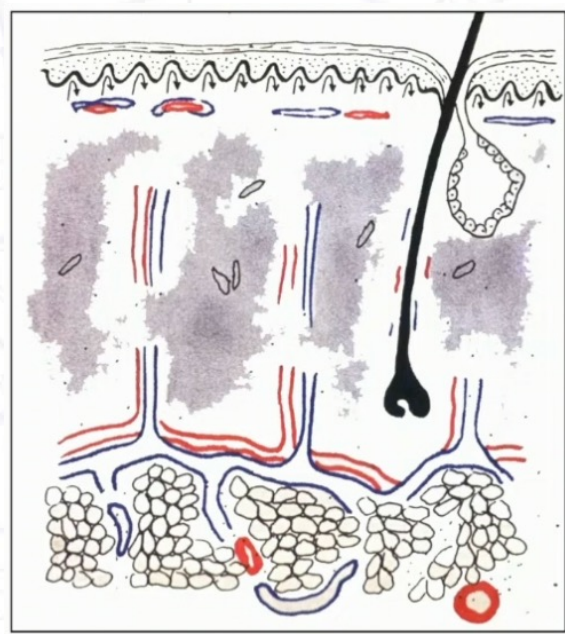
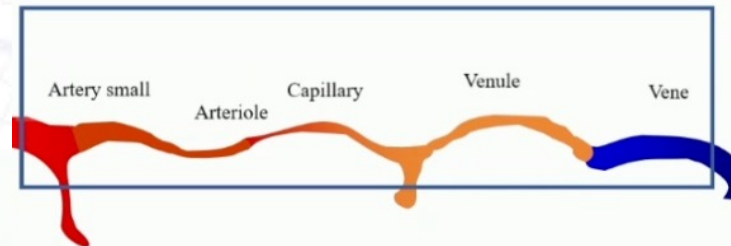
4- where in the Life of lesion?  
5- Systemic or skin only?

Clinical / laboratory data



Marc-Cyriel-Marie  
Haspelslagh  
Vasculitis and vasculopathies



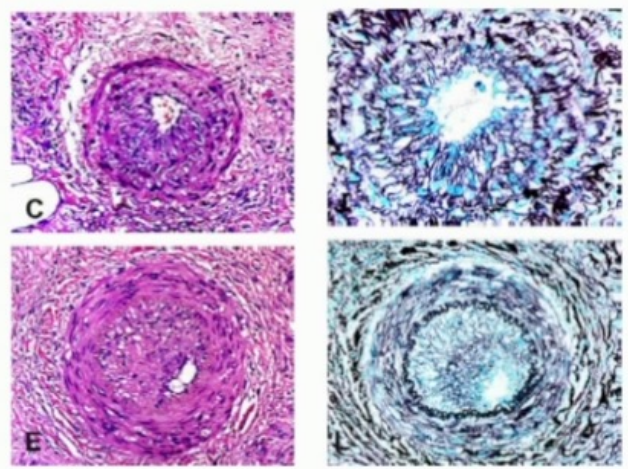


VASCULITIS  
SMALL  
VESSELS

VASCULITIS  
MEDIUM  
VESSELS

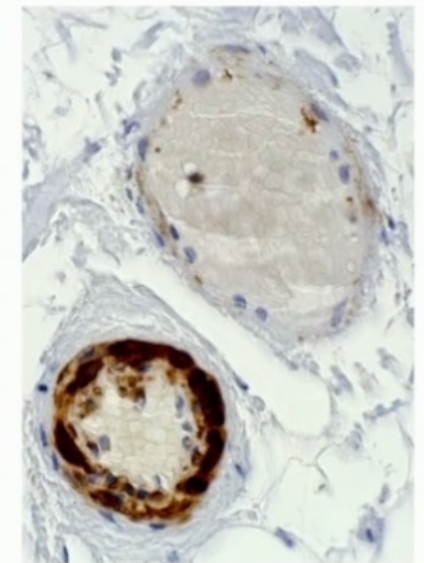
**Vasculitis in erythema induratum of Bazin:  
A histopathologic study of 101 biopsy specimens  
from 86 patients**

Sonia Segura, MD,\* Ramón M. Pujol, MD,\* Felicidade Trindade, MD,<sup>†</sup> and Luis Requena, MD<sup>‡</sup>  
*Barcelona and Madrid, Spain*



ELA - SMA

Arteriole and venule



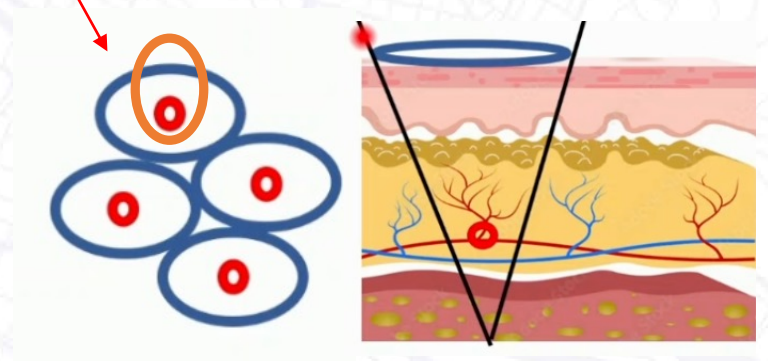
Lower leg veins of the connective tissue septa of the subcutis show a thicker and more compact muscular layer than the veins of the subcutis in other areas of the skin and they often are misinterpreted as arteries.<sup>23</sup>



VASCULITIS DE MEDIANO VASO  
Nódulos  
Livedo reticularis  
Infarto/gangrena acral



VASCULITIS DE PEQUEÑO VASO  
Púrpura palpable





## Vasculitis de pequeño vaso

- **VLC:**
  - Término histológico.
  - ¿Predictores de IgA -? **Siempre** IFD.

> J Cutan Pathol. 2023 Jul;50(7):681-686. doi: 10.1111/cup.14436. Epub 2023 May 7.

### Histopathologic features predictive of perivascular deposition of IgA on direct immunofluorescence in cases of leukocytoclastic vasculitis: A retrospective study of 112 specimens

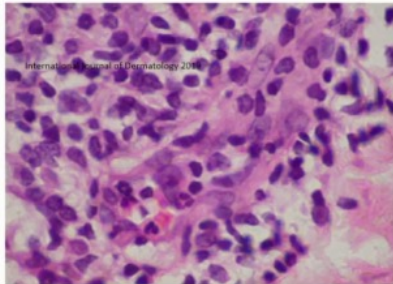
Fangyi Xie <sup>1</sup>, Emma F Johnson <sup>1, 2</sup>, David A Wetter <sup>1</sup>, Michael J Camilleri <sup>1, 2</sup>, Austin Todd <sup>3</sup>, Julia S Lehman <sup>1, 2</sup>

	IgA+ (n = 56)	IgA- (n = 56)	p Value
Epidermal spongiosis	14 (25.0%)	12 (21.4%)	0.654 <sup>a</sup>
Dermal edema	38 (67.9%)	37 (66.1%)	0.841 <sup>a</sup>
Subepidermal separation			0.697 <sup>a</sup>
None	34 (60.7%)	38 (67.9%)	
Focal	4 (7.1%)	4 (7.1%)	
Extensive	18 (32.1%)	14 (25.0%)	
Neutrophils present	56 (100.0%)	56 (100%)	1.0 <sup>a</sup>
Eosinophils present	31 (55.4%)	<u>41 (73.2%)</u>	<b>0.049<sup>a</sup></b>
Mid and deep dermal inflammation—perivascular inflammation in lower 2/3 of the dermis	14 (25.0%)	<u>28 (50.0%)</u>	<b>0.006<sup>a</sup></b>

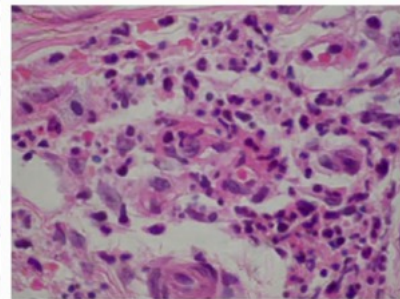


## Vasculitis de pequeño vaso

- **VLC:**
  - Término histológico.
  - ¿Predictores de IgA -? **Siempre** IFD.
- **Urticaria-vasculitis:**
  - **Normo-C'** (+frec): linfocítica.
  - **Hipo-C'** (anti-C1q): neutrofílica.



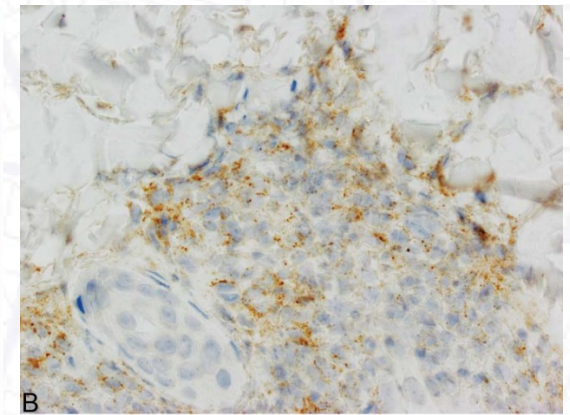
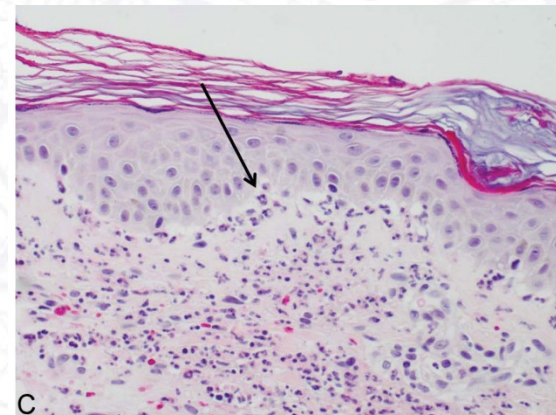
The lymphocyte predominant group constitutes the majority, are normocomplementemic



Neutrophilic predominant hypocomplementemic

> Am J Dermatopathol. 2020 Jun;42(6):399-406. doi: 10.1097/DAD.0000000000001501.

**Dermal C4d Deposition and Neutrophil Alignment Along the Dermal-Epidermal Junction as a Diagnostic Adjunct for Hypocomplementemic Urticarial Vasculitis (Anti-C1q Vasculitis) and Underlying Systemic Disease**



C4d

\***Pearl:** alineación de PMNs en MB y depósito de C4d en dermis



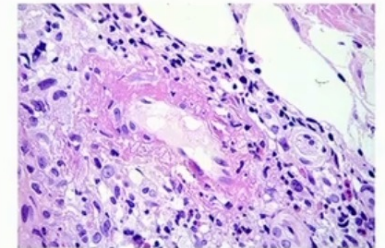
## Vasculitis de pequeño vaso

- **VLC:**
  - Término histológico.
  - ¿Predictores de IgA -? **Siempre** IFD.
- **Urticaria-vasculitis:**
  - **Normo-C'** (+frec): linfocítica.
  - **Hipo-C'** (anti-C1q): neutrofílica.
- **VVP IgM/IgG** similar a Schönlein-Henoch.
- **MIS-C** en contexto de COVID.

## MIS-C : multisystem inflammatory syndrome in children with COVID

Severely ill children few weeks after corona infection. Dermatologic manifestations are one of the hallmark findings of MIS-C, affecting roughly 74% of children diagnosed with the condition.

A study by Young et al classifies skin lesions found in children with MIS-C into four categories: morbilliform lesions, reticulated lesions, scarlatiniform lesions, and urticarial lesions.



LCV



## Corona vaccination

Small-vessel vascular injury was seen in two specimens, which were diagnosed as urticarial vasculitis and leukocytoclastic vasculitis (IgA), respectively.

Received: 12 October 2022 | Revised: 29 March 2023 | Accepted: 10 May 2023  
DOI: 10.1002/jec2.1374

CASE REPORT



### Cutaneous leukocytoclastic vasculitis following COVID-19 vaccination

Manuel Zoppi<sup>1</sup> | Victoria Gandara<sup>1</sup> | Jorge Zoppi<sup>2</sup>

## NOTES & COMMENTS

Response to Berry et al's  
"Cutaneous small-vessel vasculitis  
following single-dose Janssen  
Ad26.COV2.S vaccination"



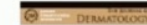
### Association of COVID-19 antigenicity with the development of antineutrophilic cytoplasmic antibody vasculitis

Jamie R. Felzer<sup>1</sup> | Delvise T. Fogwe<sup>1</sup> | Shaher Samrah<sup>2</sup> | Clement J. Michet Jr<sup>3</sup> |  
Ulrich Specks<sup>4</sup> | Misbah Baqir<sup>4</sup> | Aahd F. Kubbara<sup>4</sup>

## Corona disease

Received: 5 September 2021 | Accepted: 13 October 2021  
DOI: 10.1111/1346-8138.16211

CONCISE COMMUNICATION



Coronavirus disease 2019-associated immunoglobulin A vasculitis/Henoch–Schönlein purpura: A case report and review

Patrick M. Jedlowski | Mahdieh F. Jedlowski

SVV part of Multisystem inflammatory disease in children

Urticarial vasculitis

Lymphocytic vasculitis pernio type

CASE REPORT

### A case of generalized Sweet syndrome with vasculitis triggered by recent COVID-19 vaccination

Neha Kinariwalla, MPhil,<sup>1</sup> Ashley O. London, MS,<sup>2</sup> Ysra S. Soliman, MD,<sup>3</sup> George W. Nicc Smeccera Husain, MD,<sup>3</sup> and Stephanie M. Gallitano, MD<sup>3</sup>  
New York, New York





Front Immunol. 2021; 12: 811473.

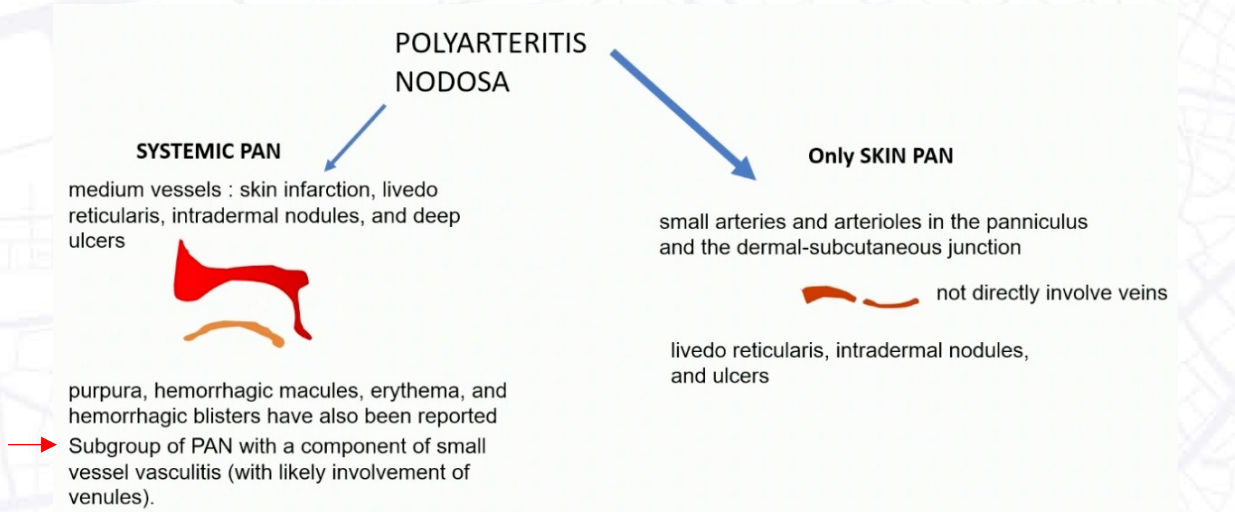
Published online 2022 Jan 10. doi: [10.3389/fimmu.2021.811473](https://doi.org/10.3389/fimmu.2021.811473)

PMCID: PMC8790931

PMID: [35095905](https://pubmed.ncbi.nlm.nih.gov/35095905/)

**The Spectrum of the Deficiency of Adenosine Deaminase 2: An Observational Analysis of a 60 Patient Cohort**

**Vasculitis de mediano vaso**



**SVV**

**Déficit de ADA-2**

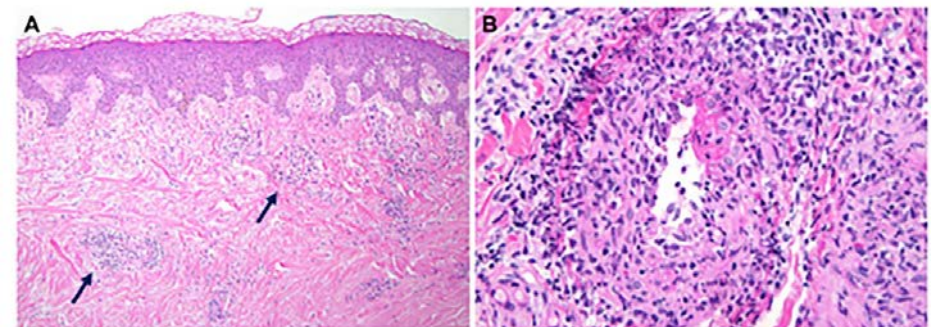
The average age at presentation to the NIH was 15.95 years

It mimics PAN, and has to be excluded especially in children with PAN or familial PAN cases.

Phenotypic variability was noted among affected family members

Skin involvement in 90% and livedo racemose in 74%

Diagnosis : ADA2 enzyme activity or genetic mutation

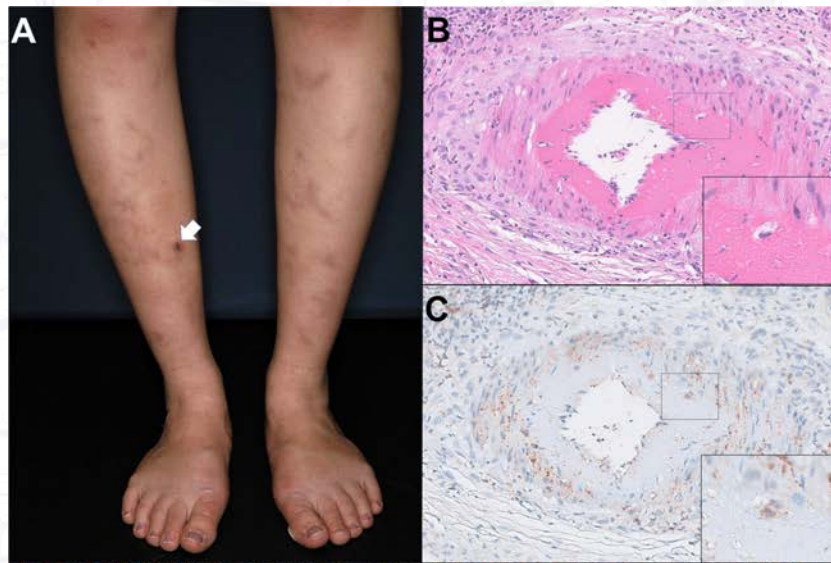


**SVV**



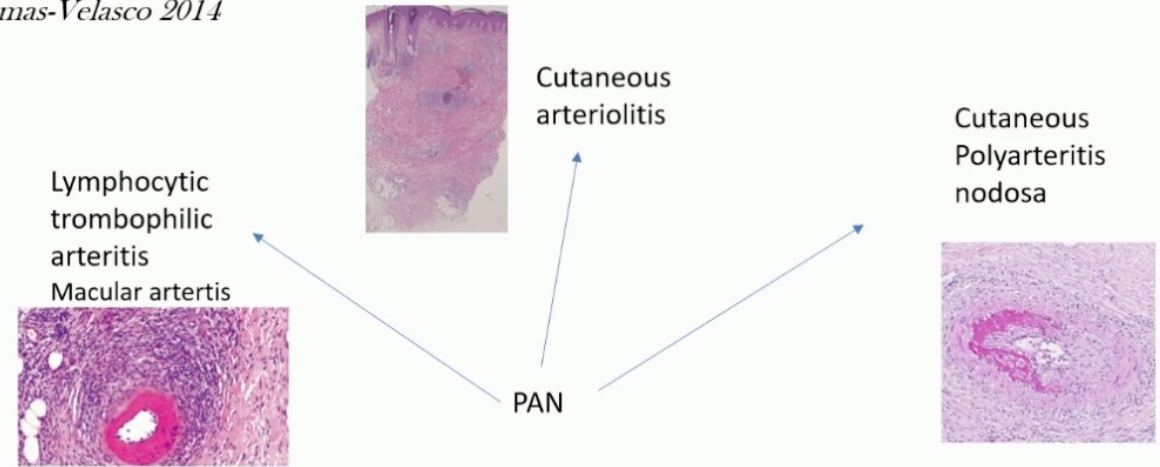
> *Virchows Arch.* 2023 Jun;482(6):1079-1083. doi: 10.1007/s00428-023-03531-8.  
 Epub 2023 Mar 24.

**Cutaneous arteritis with intimal fibrin ring and immature myeloid cell infiltrate: lymphocytic thrombophilic arteritis or histiocytoid polyarteritis nodosa?**



MPO+

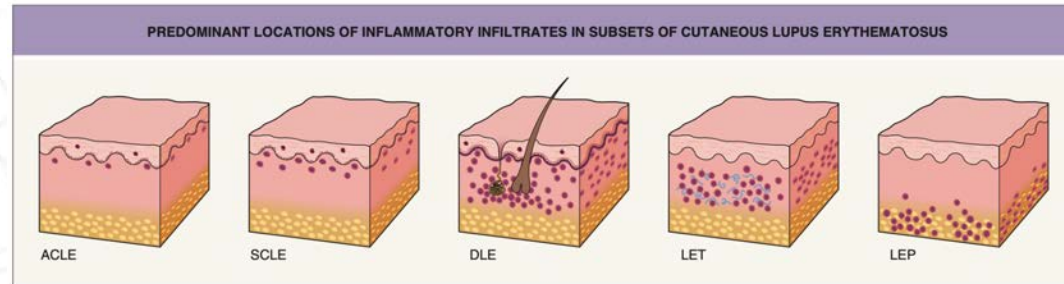
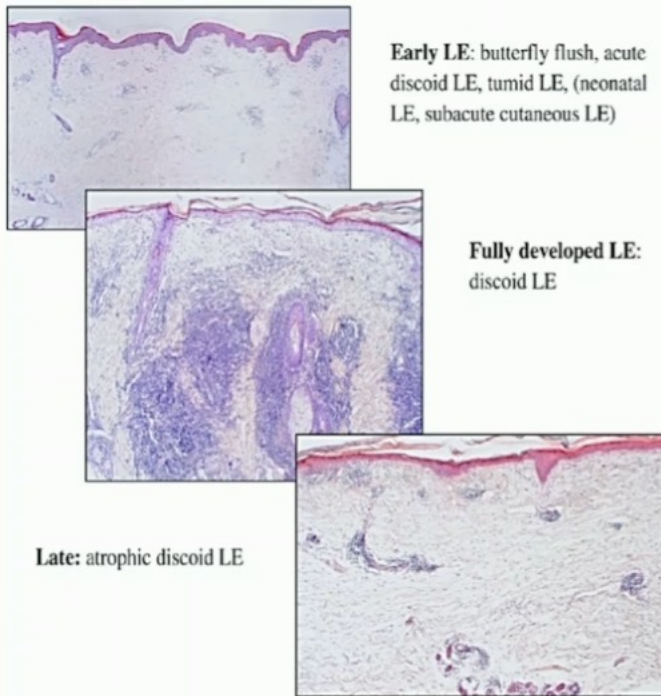
Clinicopathologic spectrum that exhibits increasing severity from (cutaneous arteriolitis), macular arteritis to lymphocytic thrombophilic arteritis and, cutaneous PAN  
*Mar Llamas-Velasco 2014*





ENFERMEDADES DEL TEJIDO CONECTIVO

LUPUS



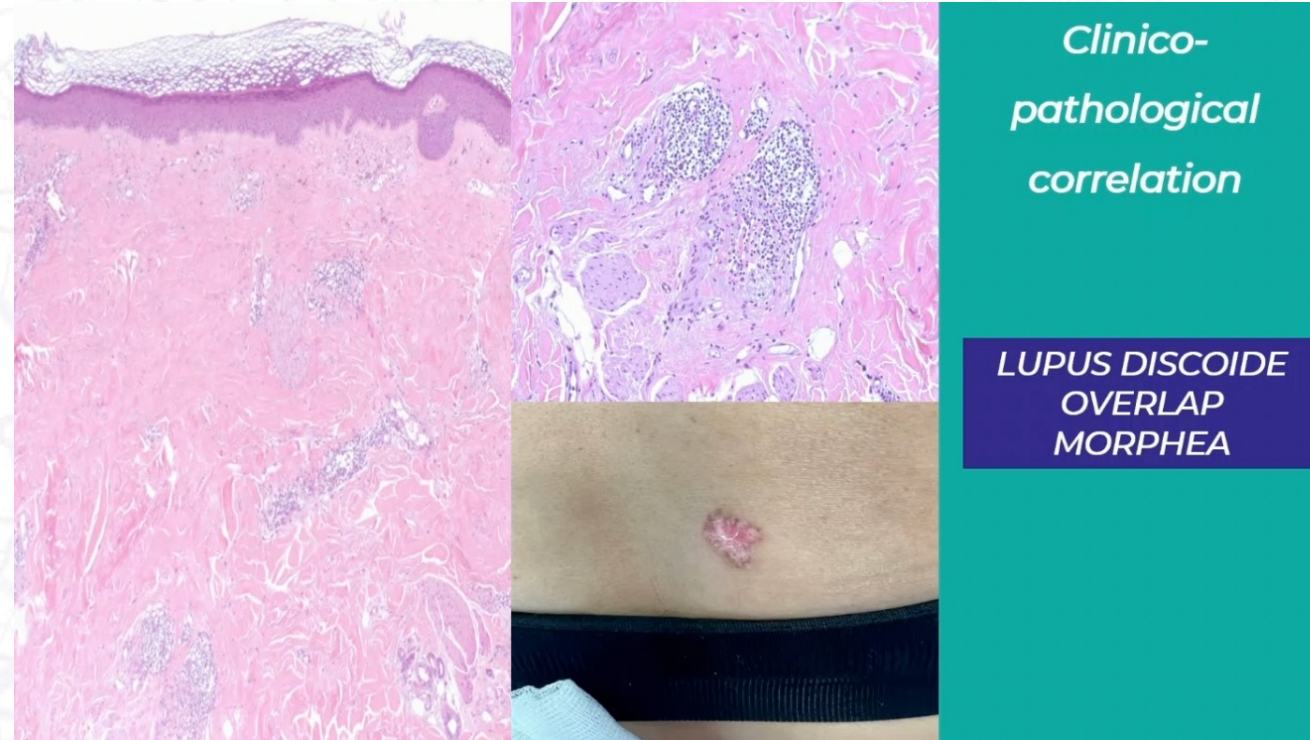
- LE has a **broad spectrum** of histological signs which are related to the stages of the lesions
- Clinical subsets of LE (except LE profundus) show an **extensive overlap** in their histological features
- Not every case of LE can be allocated to a subset because **transitions** from one type to another as well as **intermediate forms** occur
- For accurate subtyping a **CLINICO-PATHOLOGICAL CORRELATION** is thus indispensable.



Arianna Lamberti

How can dermatopathology help in connective tissues diseases





AP de LES



Review > Indian J Dermatol Venereol Leprol. 2021 Jan-Feb;87(1):3-13.

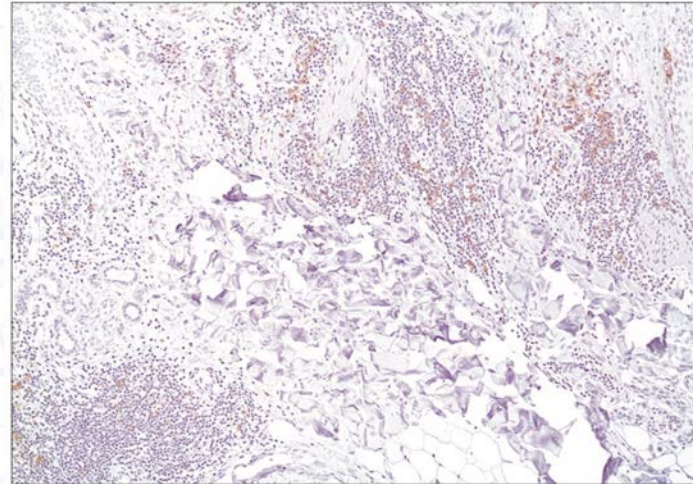
doi: 10.25259/IJDVL\_638\_19.

## Diagnostic utility of plasmacytoid dendritic cells in dermatopathology

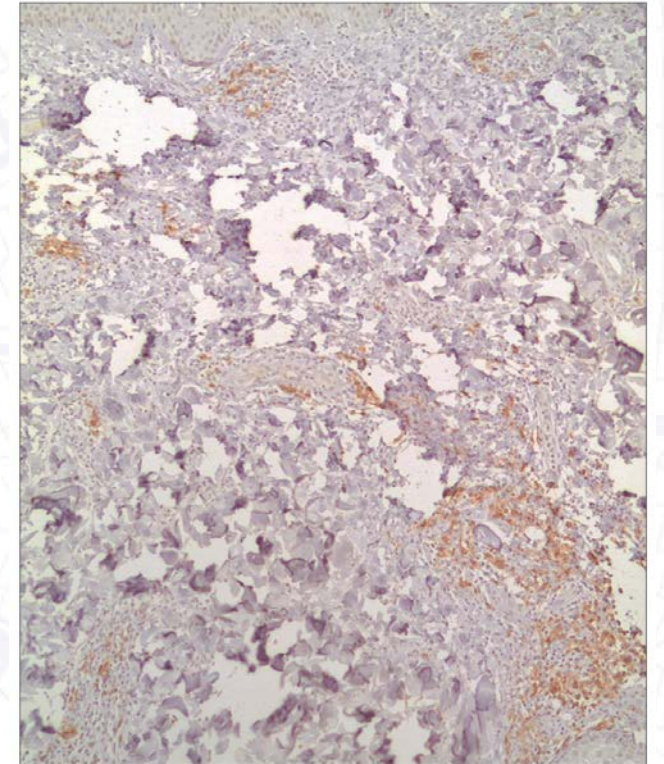
Tara Bardawil<sup>1</sup>, Samar Khalil<sup>1</sup>, Mazen Kurban<sup>1</sup>, Ossama Abbas<sup>1</sup>

CD123 +

- ✓ The *NUMBER* and *DISTRIBUTION* of PDCs differ markedly in inflammatory and neoplastic diseases
- ✓ CD123+ PDC clusters seem to be highly specific for *CLE*



**Figure 2d:** Numerous plasmacytoid dendritic cells in clusters and as single cells, in superficial and deep locations in cutaneous lupus erythematosus (×100)



**Figure 3d:** Numerous plasmacytoid dendritic cells in clusters and as single cells, in superficial and deep locations in cutaneous lupus erythematosus (×100)



## Otras entidades

- Morfea generalizada 2ª a radiodermatitis
- Dermatomiositis paraneoplásica
- Nódulo reumatoide
  - ¿Colonización? por *Leishmania major*.
  - Literatura = 2 casos previos.

Multicenter Study > J Am Acad Dermatol. 2019 Jul;81(1):260-262.  
doi: 10.1016/j.jaad.2019.02.039. Epub 2019 Feb 21.

### Radiation-induced morphea: Association with autoimmune comorbidities, severity, and response to therapy

Medicine (Baltimore). 2020 Aug 21; 99(34): e21733.  
Published online 2020 Aug 21. doi: [10.1097/MD.00000000000021733](https://doi.org/10.1097/MD.00000000000021733)

PMCID: PMC7447459  
PMID: [32846794](https://pubmed.ncbi.nlm.nih.gov/32846794/)

### Malignancy in dermatomyositis

A retrospective paired case-control study of 202 patients from Central China

Lili Chang, MM,<sup>a,d</sup> Lina Zhang, MD,<sup>b</sup> Haiquan Jia, MM,<sup>c</sup> Zhiyong Nie, MD,<sup>a</sup> and Lei Zhang, MD<sup>d,\*</sup>

CPD

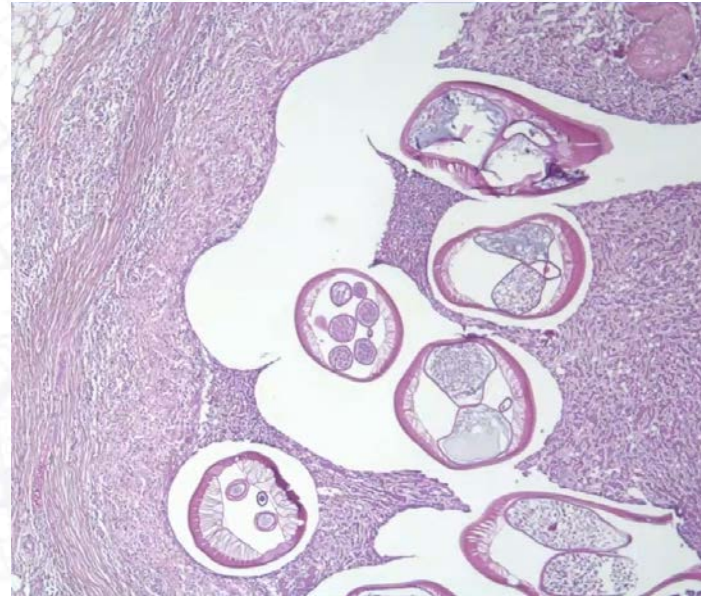
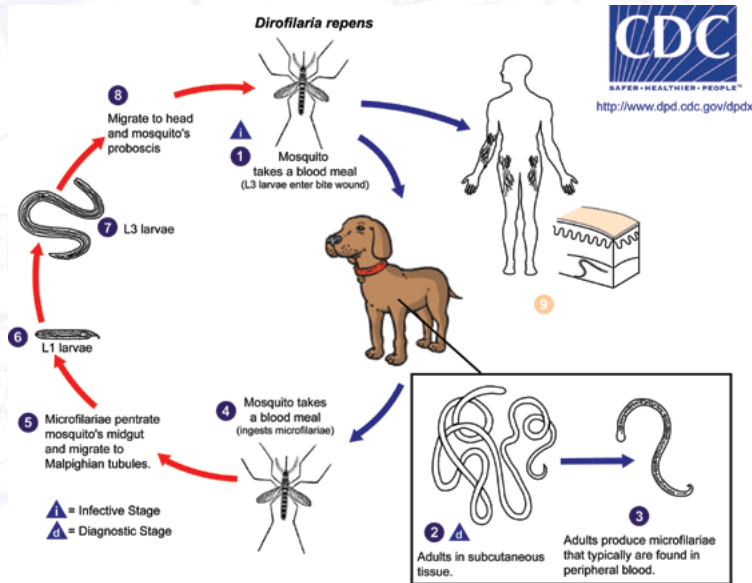
### Cutaneous leishmaniasis mimicking dactylitis in a patient with rheumatoid arthritis treated with certolizumab

J. Herrerías-Moreno,<sup>1</sup> V. Expósito-Serrano,<sup>1</sup> E. Agut-Busquet,<sup>1</sup> M. Corbacho,<sup>1</sup> E. Sáez<sup>2</sup> and J. Luelmo<sup>1</sup>

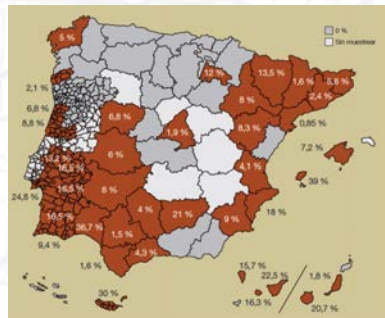
Departments of <sup>1</sup>Dermatology and <sup>2</sup>Anatomy-Pathology, Corporació Sanitària Parc Taulí, Hospital Universitari de Sabadell, Universitat Autònoma de Barcelona, Sabadell, Spain



## INFECCIONES EMERGENTES



**Erika Varga**  
Dermatopathology in emergent infections



- Nódulo subcutáneo.
- Larva viva.
- Dx: AP.

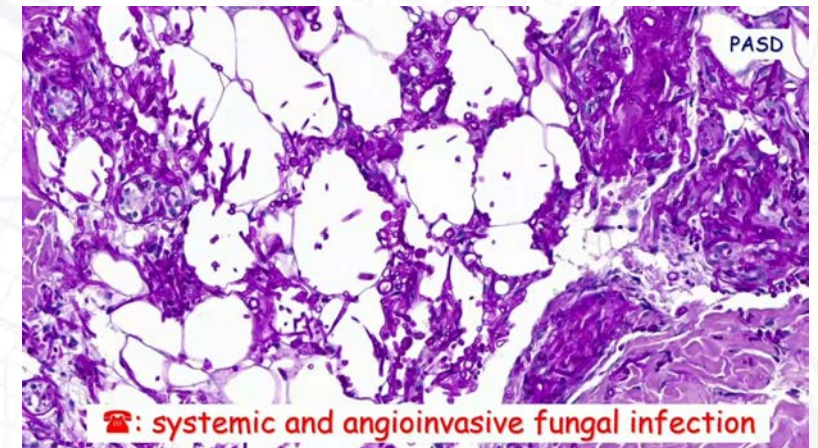
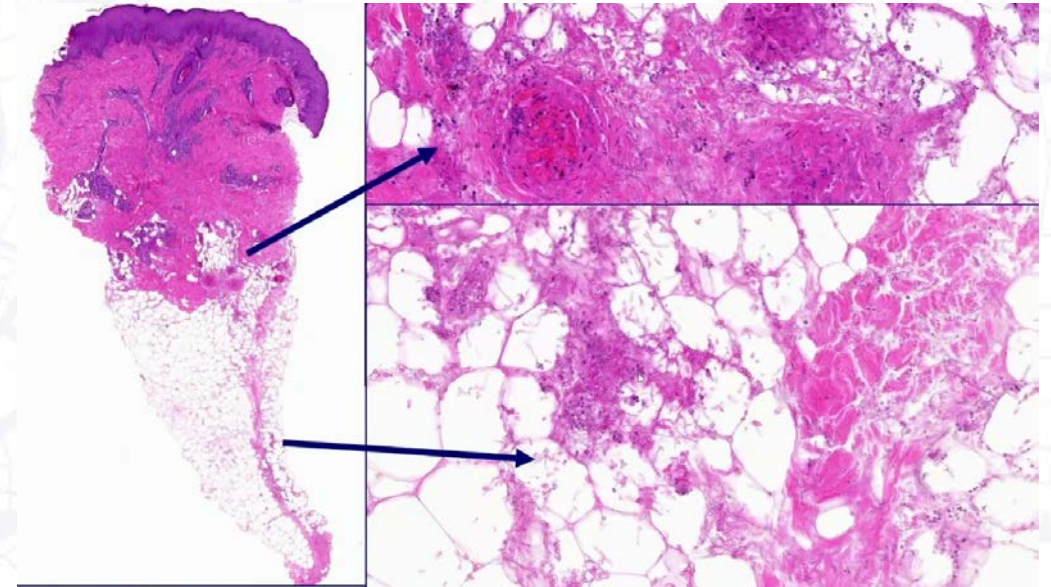




5 yo, AML relapse, QT 2 weeks prior, papules, fever

## Angioinvasive fungal infections

- immunosuppressed patients
- **biopsies: fungal culture (multiple), histopathology**
- fungal hyphae in the tissue and/or vessels, necrosis
- HE, PAS, GMS
- **specification cannot be done on histopathology alone**
- **pitfalls in characterizing the exact fungus**
- septate (Aspergillus, Fusarium, Scedosporium)
- nonseptate (class Mucormycetes: Rhizopus spp, Absidia spp, Mucor spp)
- first-line for Mucormycetes: liposomal amphotericin B
- first-line for Aspergillus: voriconazole





69 yo, Ibrutinib for B-CCL, Mieloma, Sjögren

69 y/o female



A. Török, Internal Medicine, Szentos Multidisciplinary Center A. Szent-Györgyi Clinical Center

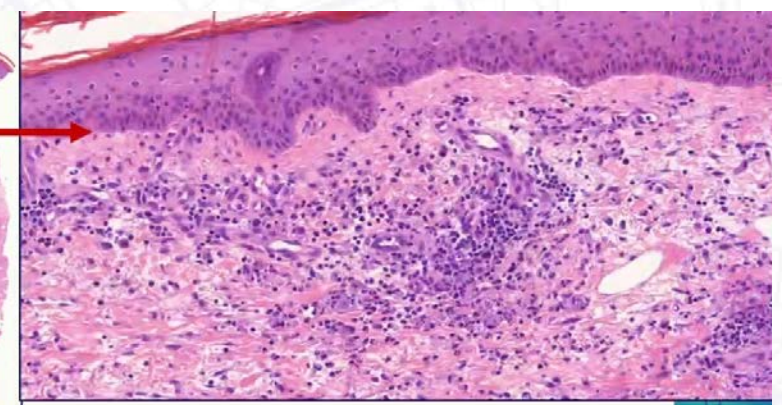
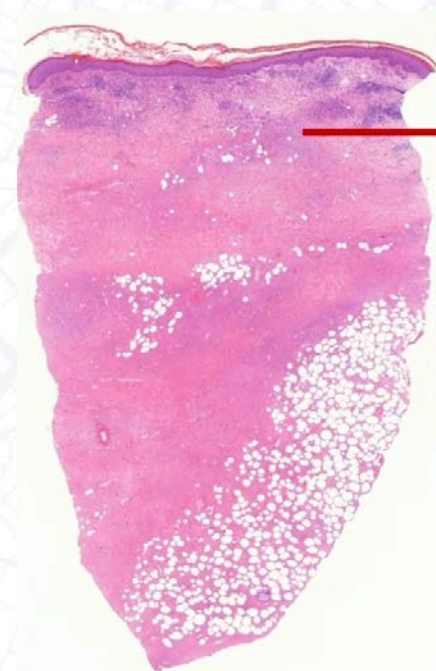
Conjunctivitis crónica previa

¿PLEVA?



69 yo, Ibrutinib for B-CCL, Mieloma, Sjögren

69 y/o female



VLC

A. Török, Internal Medicine, Szentos Multidisciplinary Center A. Szent-Györgyi Clinical Center

Conjunctivitis crónica previa



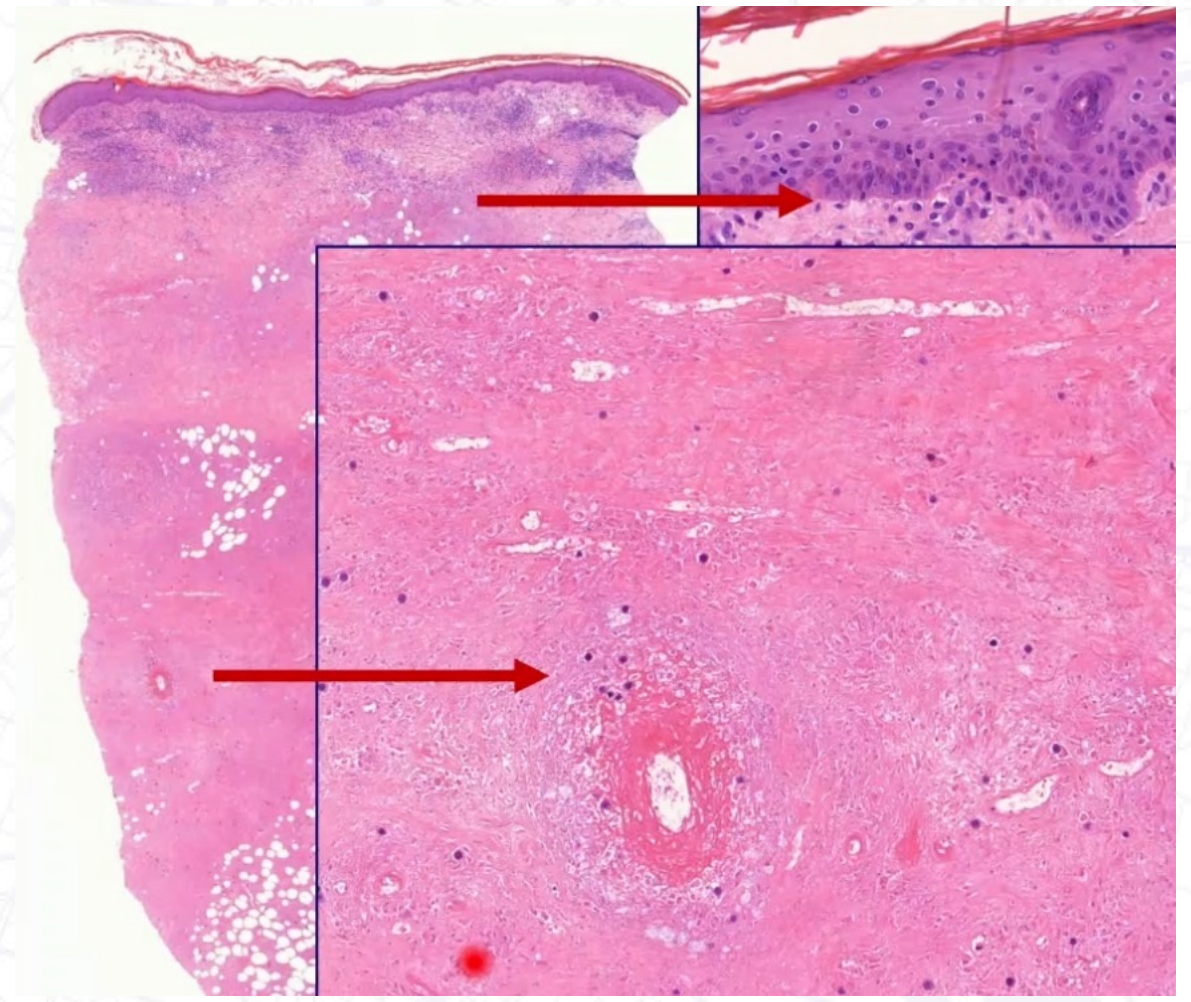
69 yo, Ibrutinib for B-CCL, Mieloma, Sjögren

69 y/o female



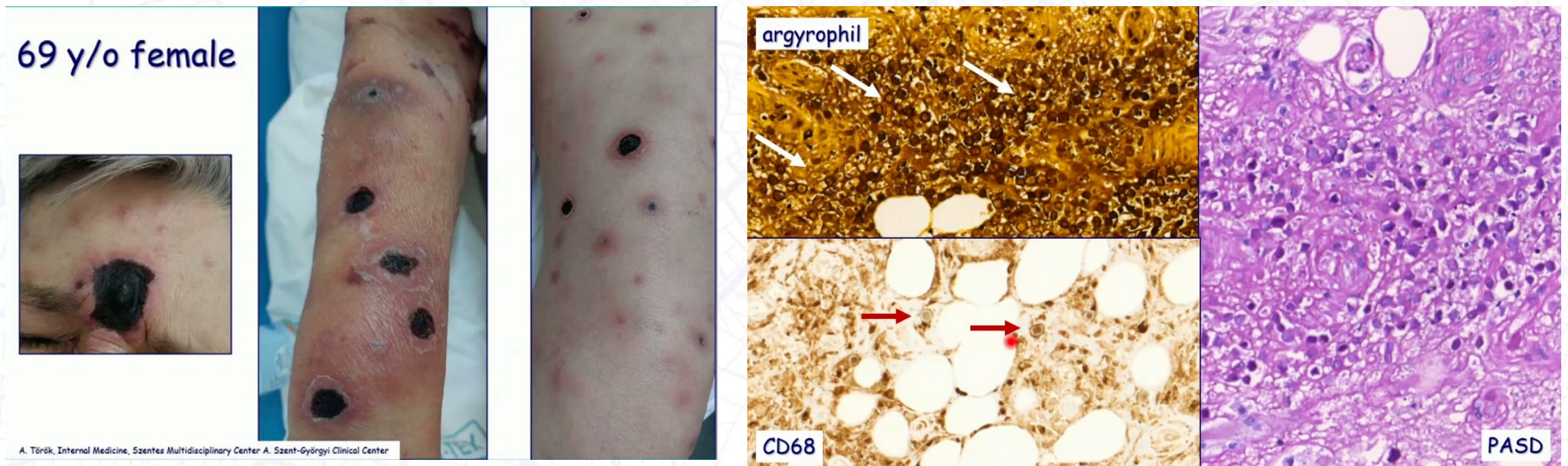
A. Török, Internal Medicine, Szentos Multidisciplinary Center A. Szent-Györgyi Clinical Center

Conjunctivitis crónica previa





69 yo, Ibrutinib for B-CCL, Mieloma, Sjögren



Conjunctivitis crónica previa



## Diseases caused by Acanthamoeba

### Cutaneous and mucosal infections

- multiple lesions
- nodular, ulcerated, necrotic, papulo-pustular

### Keratitis

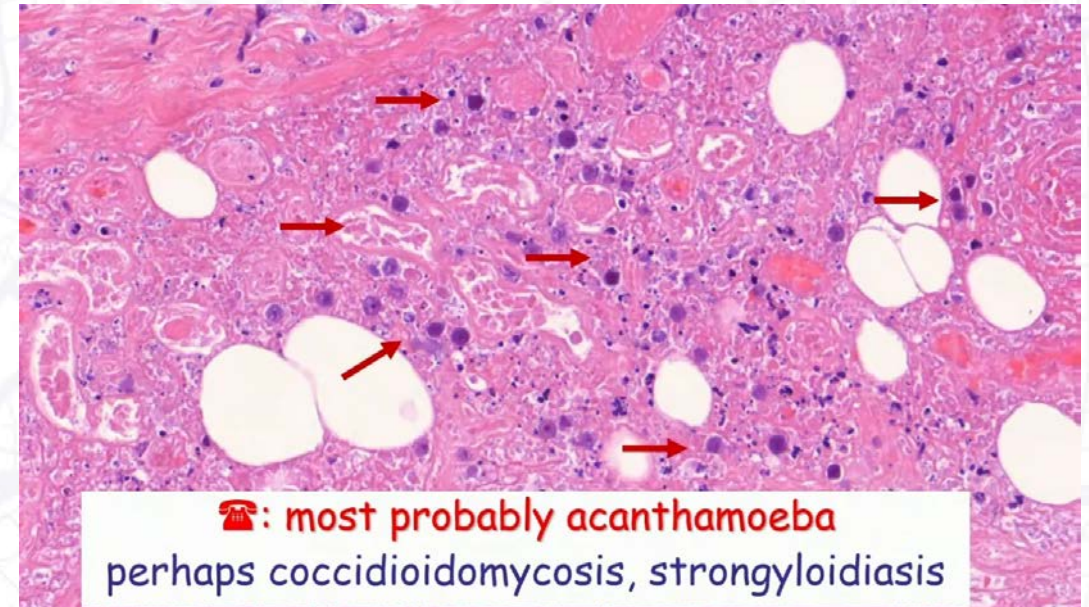
- rising incidence due to contact lens usage!!!

### Central nervous system

- granulomatous amoebic encephalitis (GAE)
- primary amoebic meningoencephalitis (PAM)

### Pneumonitis, rhinosinusitis

- early recognition, prompt diagnosis
- rapid initiation of treatment
- **combination therapy: antibiotics, antifungals, antiprotozoal agents**
- miltefosine, amphotericin B, metronidazole, ceftriaxone, rifampin, isoniazid, trimethoprim-sulfamethoxazole, fluconazole, flucytosine, azithromycin...



📞: most probably acanthamoeba  
 perhaps coccidioidomycosis, strongyloidiasis

Acanthamoeba PCR: positive, sequencing: T4 genotype

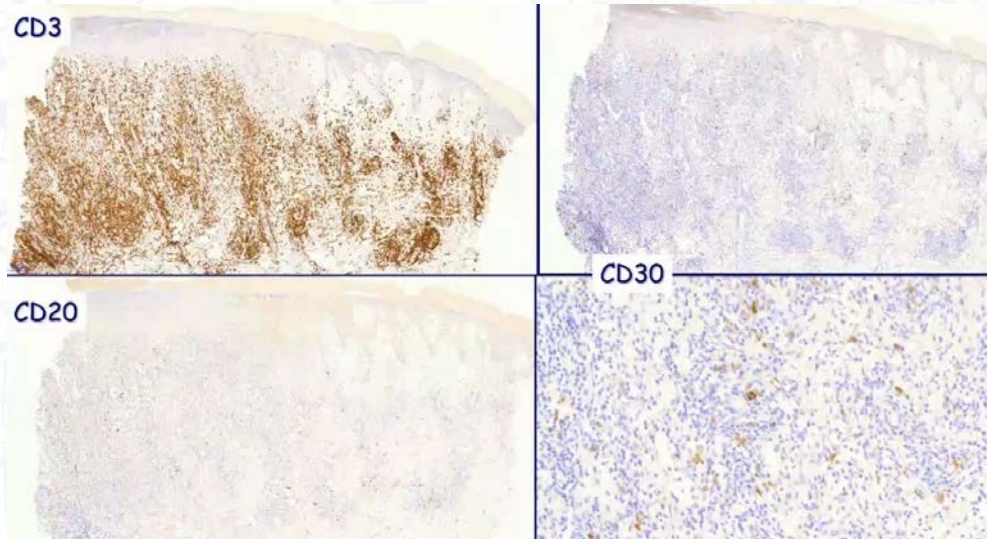
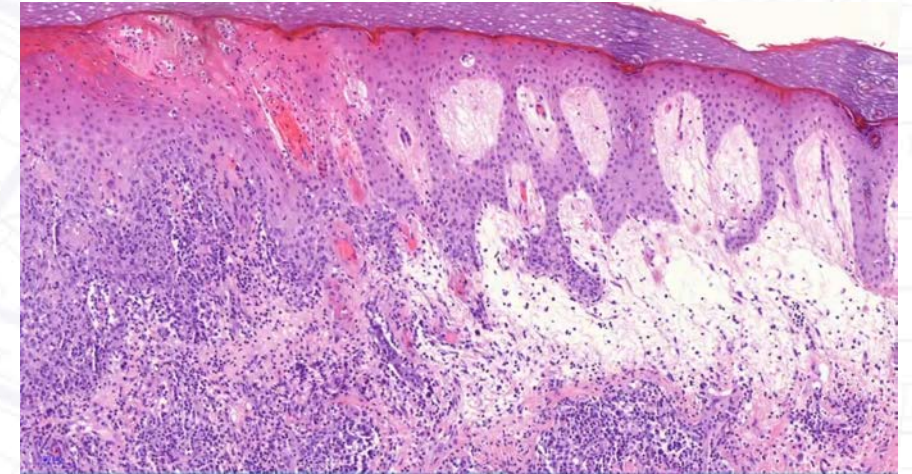
6. Terhes, Institute of Clinical Microbiology



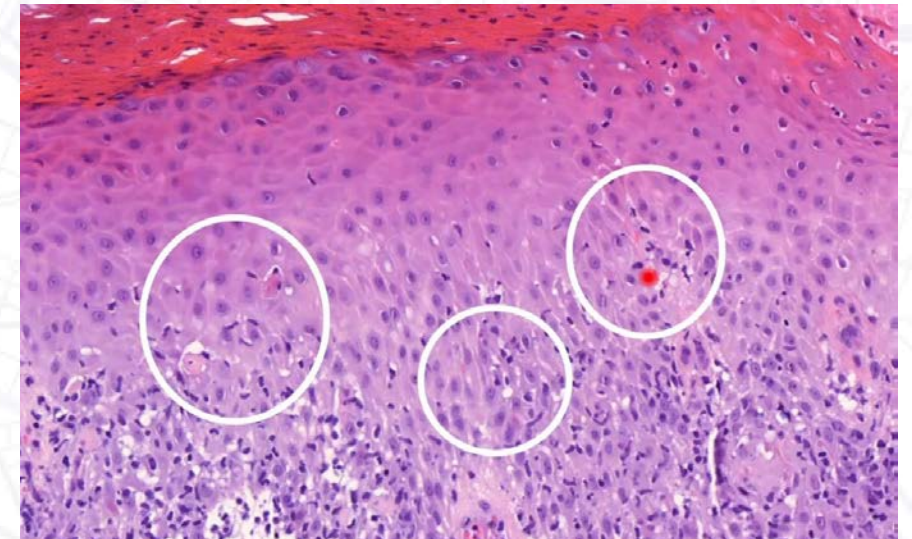
40 yo, cattle farm worker, bitten by calf 1 wk prior



- nodules, bullae, pustules, ulcerations
- microbial culture: negative
- blood test and flow cytometry: lymphocytosis
- amoxicillin + clavulanic acid, topical antiseptics



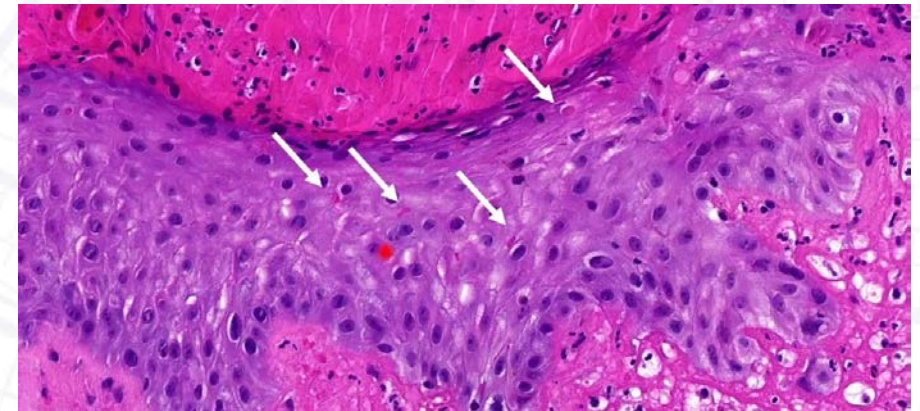
¿Papulosis linfomatoide?



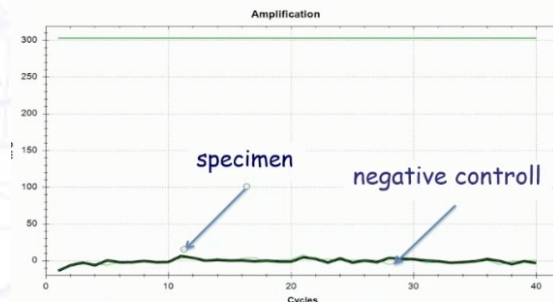


	Milker's nodule	Orf / echtyma contagiosum	Cowpox
Virus	Paravaccinia / Pseudocowpox	Orf	Cowpox
Genus	Parapoxvirus	Parapoxvirus	Ortopox
Family	Poxviridae	Poxviridae	Poxviridae
Host	cattle	goats, sheep	cattle

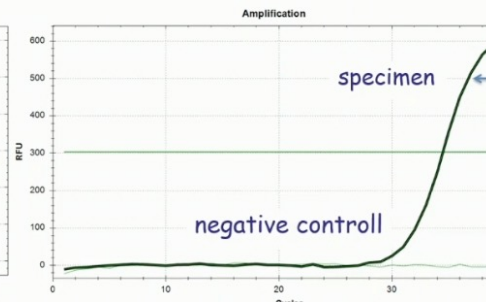
- lymphomatoid papulosis!!! → emerged pathologically



### cowpox virus specific primers



### parapox virus specific primers



- treatment: spontaneous remission
- importance of protecting clothing

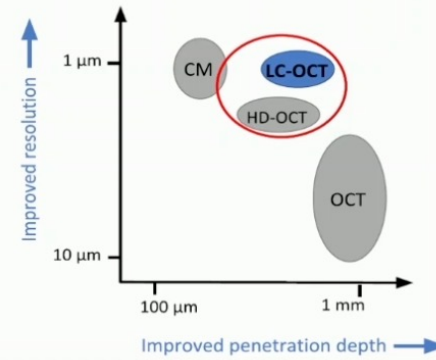


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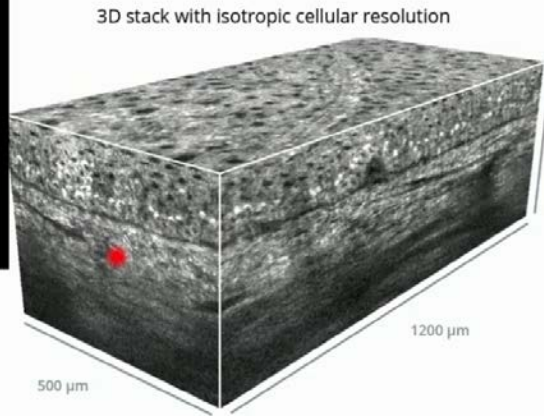
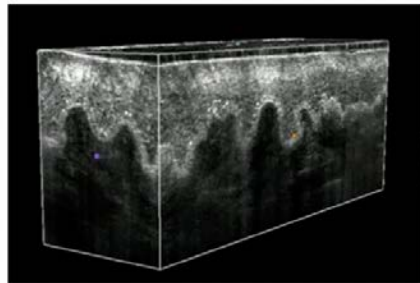
**Morphological evaluation of melanocytic lesions with three-dimensional line-field confocal optical coherence tomography: correlation with histopathology and reflectance confocal microscopy. A pilot study**





Javiera Perez-Anker  Susana Puig, Lluçia Alos, Adriana García, Beatriz Alejo, Elisa Cinotti, Carmen Orte Cano, Linda Tognetti, Clement Lenoir, Jiliana Monnier ... [See all authors](#) 

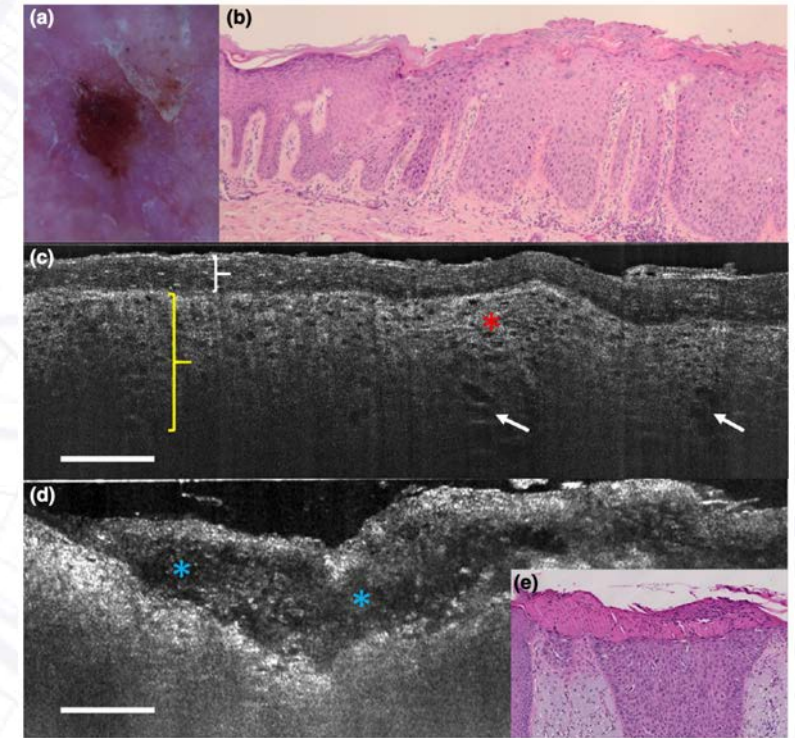
First published: 21 August 2022 | <https://doi.org/10.1111/ced.15383> | Citations: 5



**Line-Field Confocal Optical Coherence Tomography (LC-OCT)**



- LIVE VERTICAL 
- LIVE HORIZONTAL 
- 3D MODE 
- DERMOSCOPY 



**Line-field confocal optical coherence tomography for actinic keratosis and squamous cell carcinoma: a descriptive study**

E Cinotti <sup>1</sup>, L Tognetti <sup>1</sup>, A Cartocci <sup>2</sup>, A Lamberti <sup>1</sup>, S Gherbassi <sup>1</sup>, C Orte Cano <sup>3</sup>, C Lenoir <sup>3</sup>, G Dejonckheere <sup>3</sup>, G Diet <sup>3</sup>, M Fontaine <sup>3</sup>, M Miyamoto <sup>3</sup>, J Perez-Anker <sup>4 5</sup>, V Solmi <sup>1</sup>, J Malvey <sup>4 5</sup>, V Del Marmol <sup>3</sup>, J L Perrot <sup>6</sup>, P Rubegni <sup>1</sup>, M Suppa <sup>3 7</sup>



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