## Nuevas entidades descritas en el Hospital Niño Jesús 2010-2011

### **Isabel Colmenero**

Servicio de Anatomía Patológica













#### CASE & REVIEW

# Chronic atypical neutrophilic dermatosis with lipodystrophy and elevated temperature (CANDLE) syndrome

Antonio Torrelo, MD,<sup>a</sup> Sapna Patel, MD,<sup>b</sup> Isabel Colmenero, MD,<sup>c</sup> Dolores Gurbindo, MD,<sup>d</sup> Francisco Lendínez, MD,<sup>e</sup> Angela Hernández, MD,<sup>a</sup> Juan Carlos López-Robledillo, MD,<sup>f</sup> Ali Dadban, MD,<sup>g</sup> Luis Requena, MD,<sup>h</sup> and Amy S. Paller, MD<sup>b</sup> Madrid and Almería, Spain; Chicago, Illinois; and Amiens, France

Several syndromes manifest as recurrent daily fevers, skin lesions, and multisystem inflammation. We describe 4 patients with early-onset recurrent fevers, annular violaceous plaques, persistent violaceous eyelid swelling, low weight and height, lipodystrophy, hepatomegaly, and a range of visceral inflammatory manifestations. Laboratory abnormalities included chronic anemia, elevated acute-phase reactants, and raised liver enzymes. Histopathologic examination of lesional skin showed atypical mononuclear infiltrates of myeloid lineage and mature neutrophils. Our patients have a distinctive early-onset, chronic inflammatory condition with atypical or immature myeloid infiltrates in the skin. We propose the acronym CANDLE (chronic atypical neutrophilic dermatosis with lipodystrophy and elevated temperature) syndrome for this newly described disorder, which is probably genetic in origin. (J Am Acad Dermatol 2010;62:489-95.)

Feature	Patient 1	l Patient	2 Patient 3	3 Patient 4
Early onset	+	+	+	+
Fever (daily or recurrent)	+	+	+	+
Annular violaceous	+	+	+	+
plaques				
Persistent eyelid	+	+	+	
violaceous swelling				
Perioral swelling	+	+		
Ear and nose chondritis	+			
Low weight and height	+	+	+	+
Lipodystrophy	+	+	+	+
Prominent abdomen	+		+	
Acanthosis nigricans and			+	
hirsutism				
Lymphadenopathy	+			
Hepatomegaly	+		+	+
Splenomegaly	+		+	

Feature	Patie	ent 1 Patien	t 2 Patieı	nt 3 Patient 4
Arthralgia	+	+	+	
Conjunctivitis and	+	+		
nodular episcleritis				
Epididymitis	+			
Aseptic meningitis	+		+	
Parotitis			+	
Interstitial lung disease			+	
Nephritis			+	
Otitis			+	
Increased ESR and CRP	+	+	+	+
Hypochromic anemia	+	+	+	+
Increased platelet count	s +			+
Elevated AST and ALT	+	+	+	+
Increased triglyceride			+	+
levels				
Basal ganglia	+		+	
calcifications				





















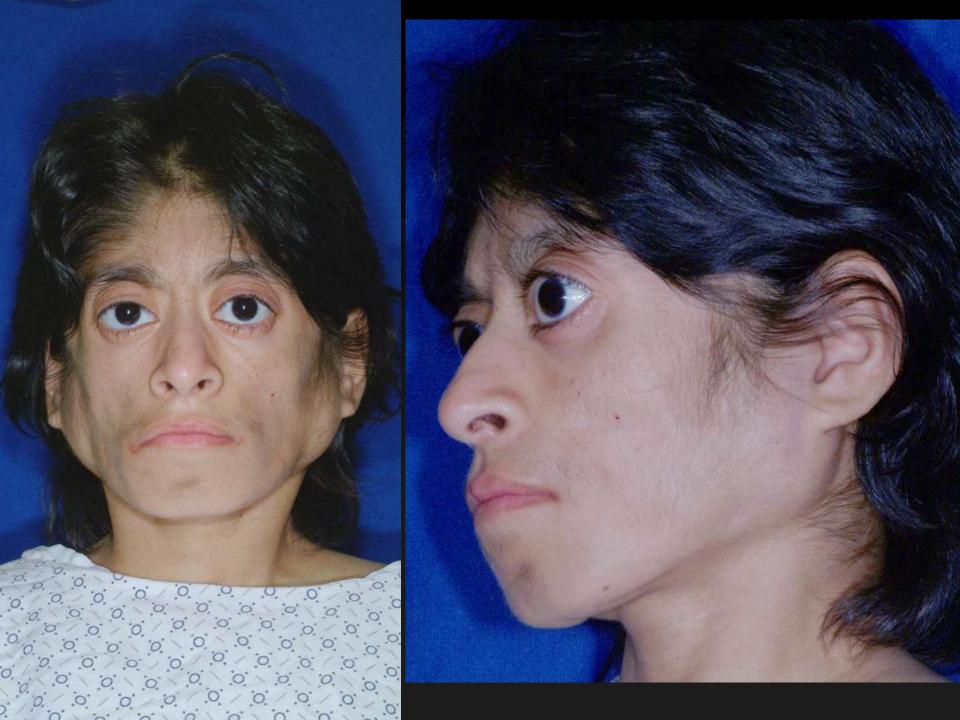


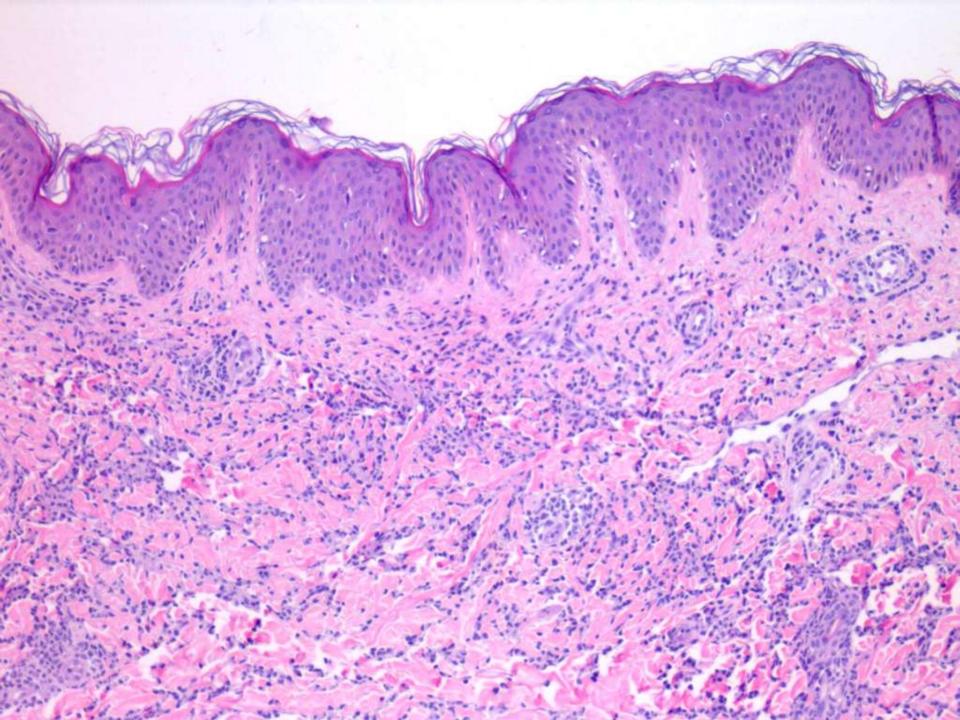


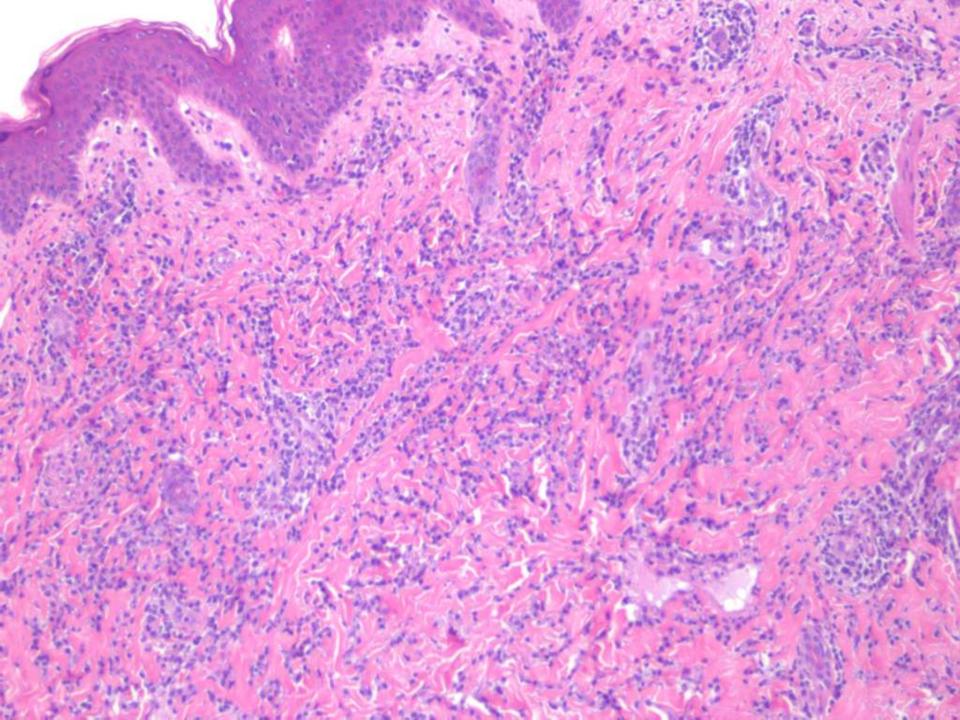


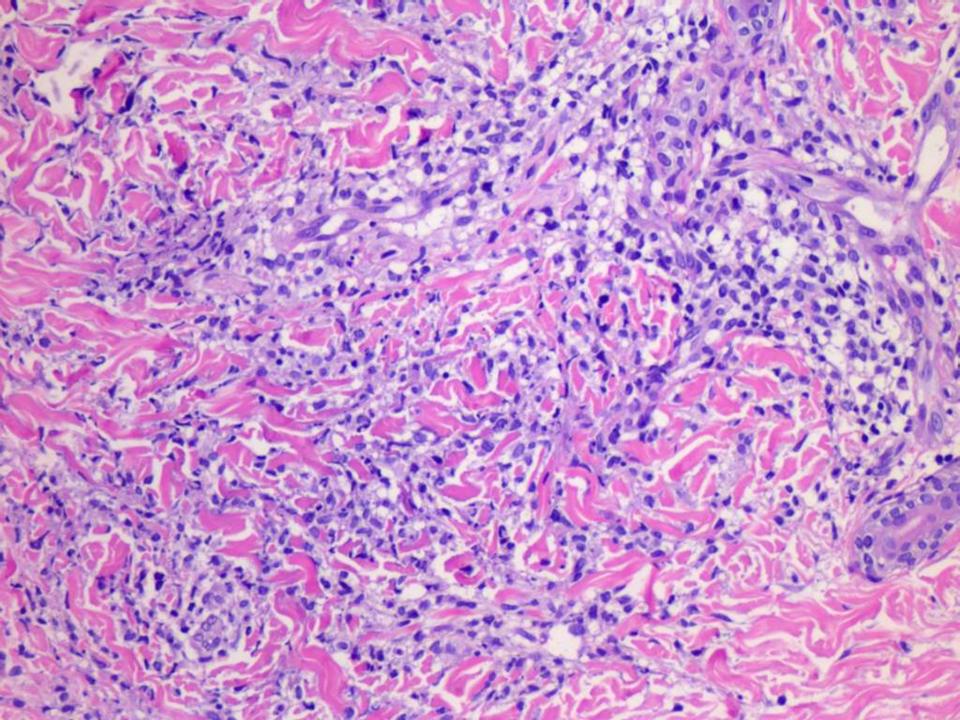


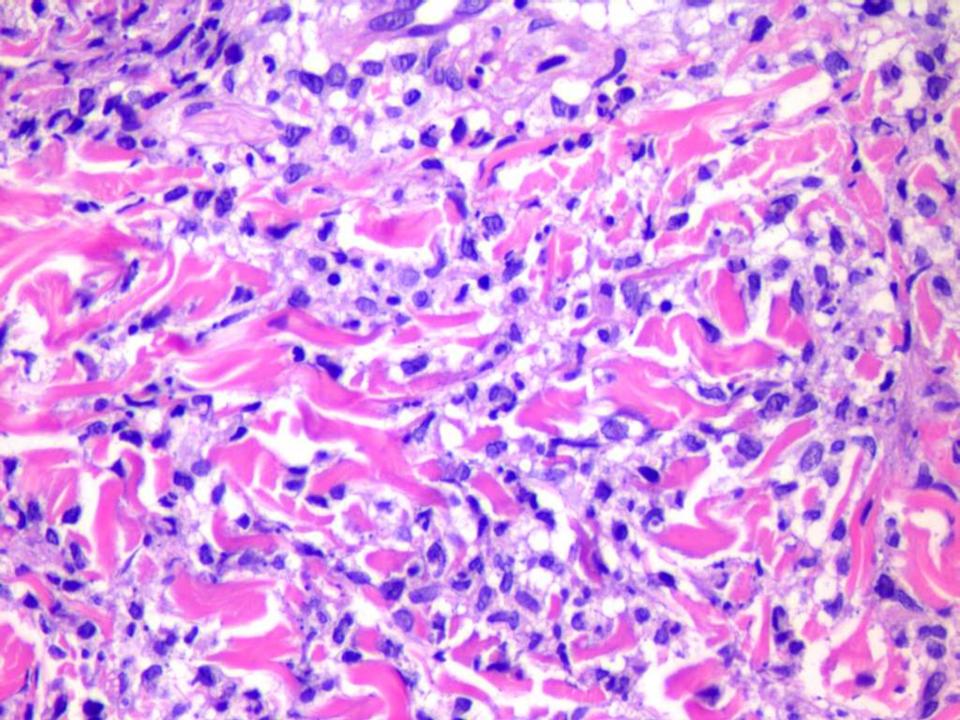


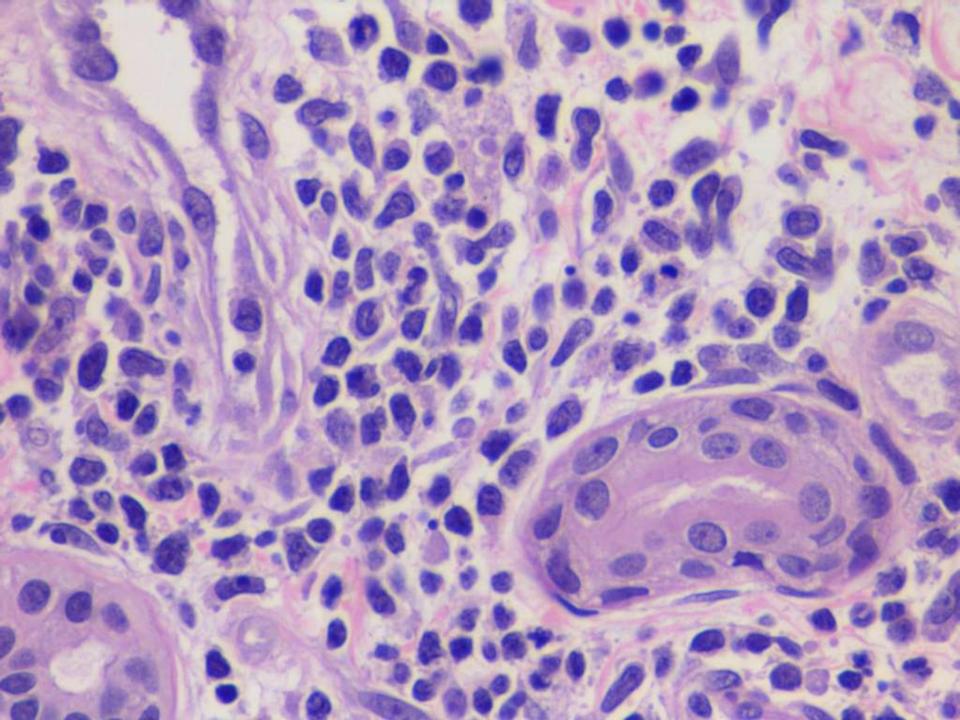


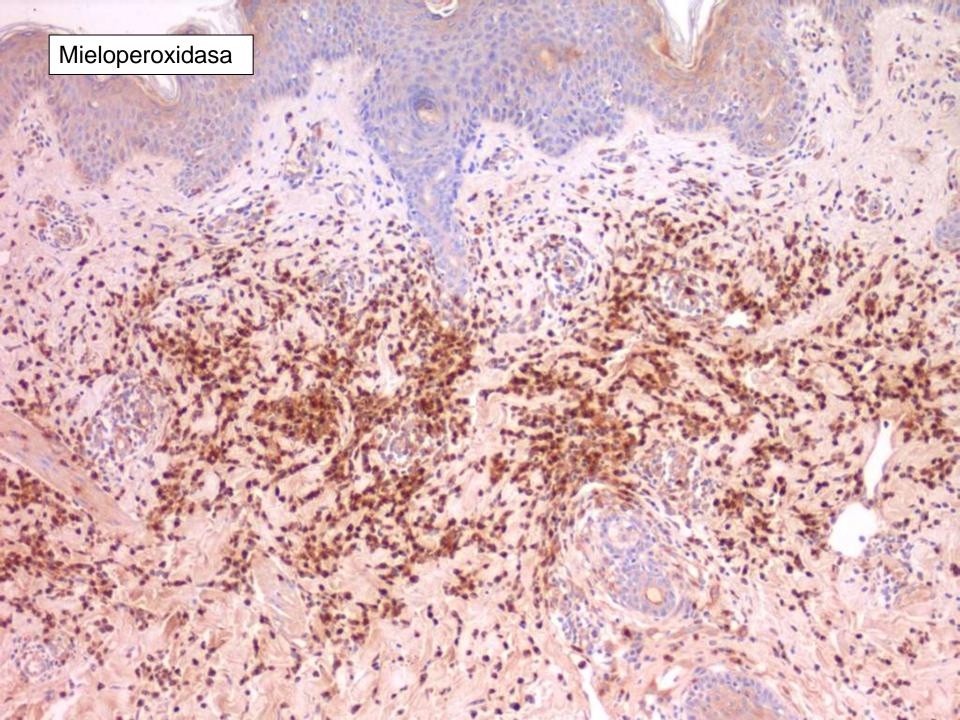


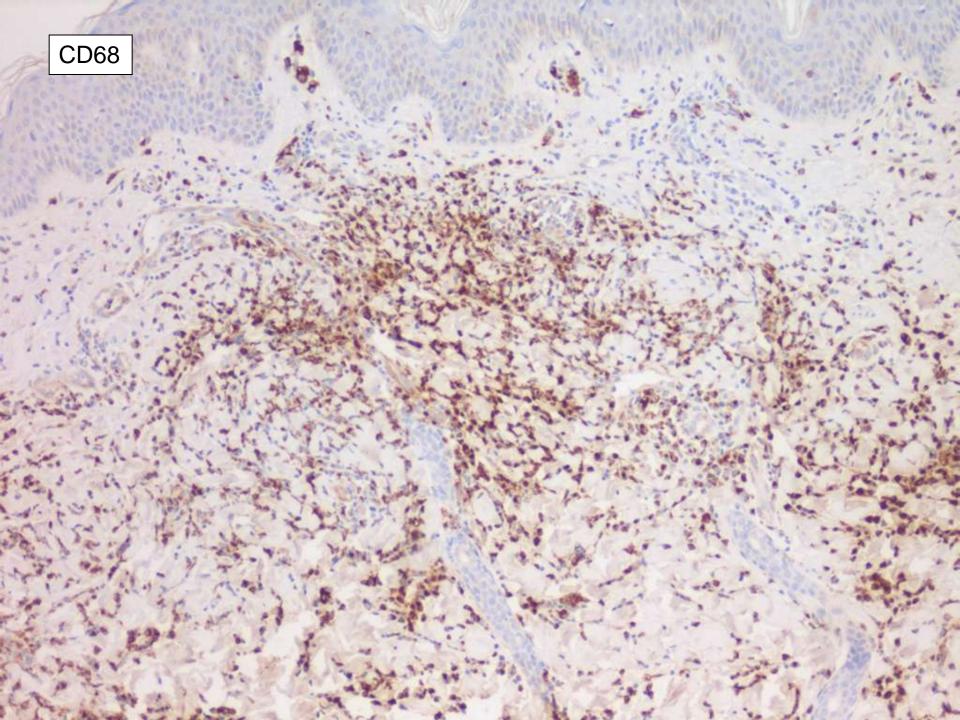


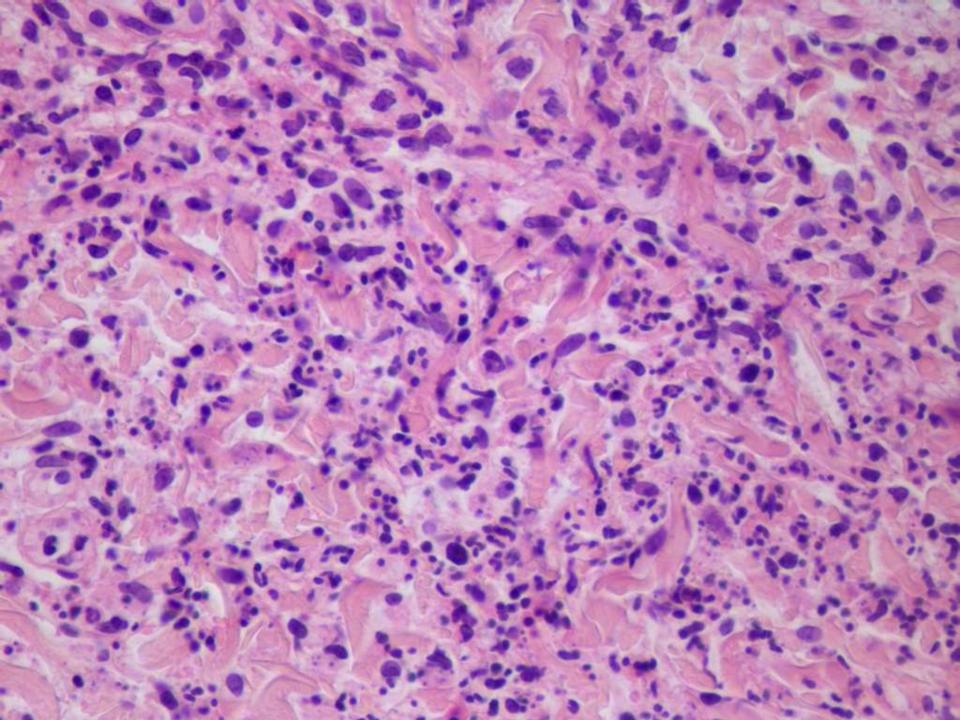












### **Tratamientos**

- AINEs
- Colchicina
- Inmunoglobulina IV
- Corticoides orales
- Dapsona
- Metotrexato
- PUVA
- Azatioprina
- Infliximab
- Ciclosporina
- Anakinra
- Etanercept







# Seguimiento del síndrome

- 2 casos previamente sin diagnóstico
- 1 nuevo caso publicado
- 3 nuevos casos aún sin publicar
- 2 entidades relacionadas

# An Unknown Autoinflammatory Syndrome Associated with Short Stature and Dysmorphic Features in a Young Boy

ANDRÉ MÉGARBANÉ, AGNÈS SANDERS, ELIANE CHOUERY, VALÉRIE DELAGUE, MYRNA MEDLEJ-HASHIM, and PAUL-HENRI TORBEY

#### ABSTRACT.

A young boy from nonconsanguineous Palestinian parents presented with short stature, motor developmental delay, wide nasal bridge, bilateral periorbital edema, everted lower lip, brachydactyly, large interphalangeal articulations, drumstick extremities of the fingers, bilateral simian crease, clinodactyly of the 5th fingers, painful joints, subcutaneous nodules all over his body and recurrent episodes of fever of unknown origin. Differential diagnoses such as the hyperimmunoglobulinemia D syndrome, tumor necrosis factor receptor associated periodic syndrome (TRAPS), the chronic infantile neurological cutaneous and articular (CINCA) syndrome, and the newly recognized nodulosis, arthropathy, and osteolysis (NAO) syndrome are discussed. This syndrome may not have been previously reported. (J Rheumatol 2002;29:1084-7)





### MINISTERIO DE TRABAJO INSTITUTO NACIONAL DE PREVISION

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### OBSERVACIONES ACERCA DEL CURSO CLINICO





# Chronic Atypical Neutrophilic Dermatosis with Lipodystrophy and Elevated Temperature Syndrome: A Case Report

Yuval Ramot, M.Sc., M.D.,\*,‡ Tali Czarnowicki, M.D.,\* Alex Maly, M.D.,† Paulina Navon-Elkan, M.D.,§ and Abraham Zlotogorski, M.D.\*,‡

Departments of \*Dermatology and †Pathology, ‡The Center for Genetic Diseases of the Skin and Hair, Hadassah-Hebrew University Medical Center, Jerusalem, §Department of Pediatrics, Shaare-Zedek Medical Center, Jerusalem, Israel

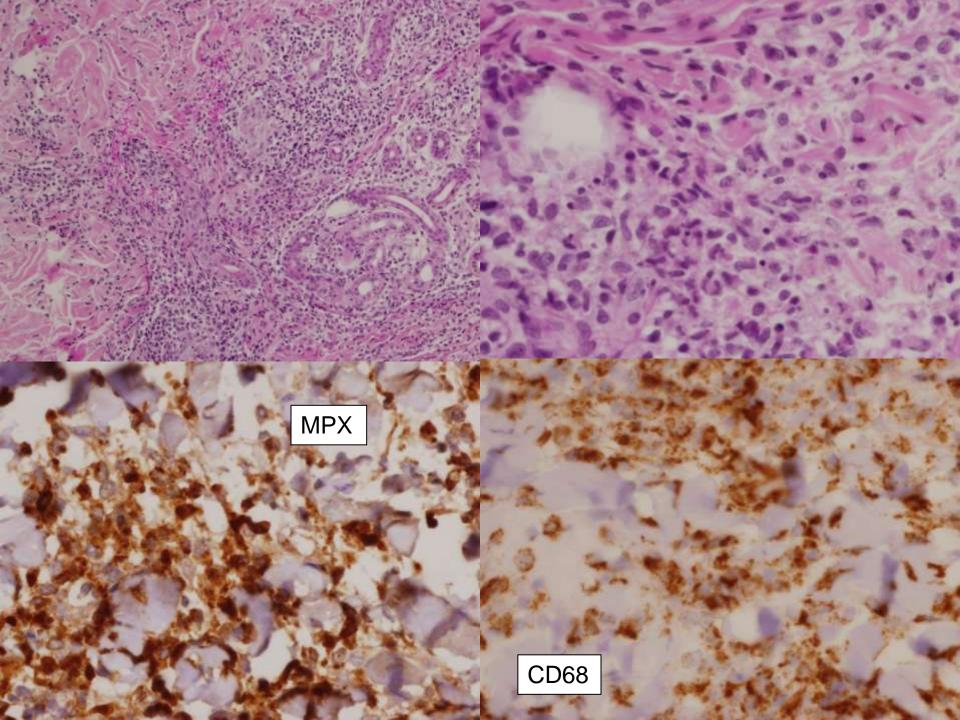
Abstract: Chronic atypical neutrophilic dermatosis with lipodystrophy and elevated temperature syndrome is a recently described chronic inflammatory syndrome consisting of widespread annular violaceous skin lesions and multisystemic inflammatory manifestations. We report a 12½-year-old boy with a young-age onset of recurrent fevers, annular violaceous plaques, alopecia areata, lipodystrophy, low weight and height, deformed fingers, wide-spaced nipples, chronic anemia, and elevated acute phase reactants. An abdominal punch biopsy demonstrated dense perivascular and interstitial infiltrates in the dermis, composed mainly of mononuclear cells. This syndrome may represent a new autosomal recessive auto-inflammatory genodermatosis. Increased awareness may lead to the discovery of more cases, and clarify its pathogenesis.























#### **An Autosomal Recessive Syndrome of Joint** Contractures, Muscular Atrophy, Microcytic Anemia, and Panniculitis-Associated Lipodystrophy

Abhimanyu Garq, Maria Dolores Hernandez, Ana Berta Sousa, Lalitha Subramanyam, Laura Martínez de Villarreal, Heloísa G. dos Santos, and Oralia Barboza

#### J Clin Endocrin Metab. First published ahead of print June 9, 2010

Syndrome of Panniculitis-Induced Lipodystrophy Garg et al.

J Clin Endc

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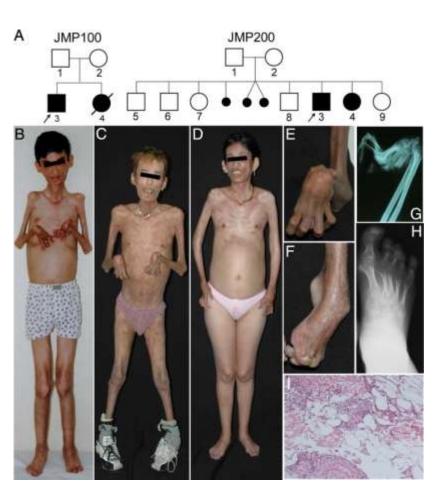
Fecha: miércoles 225 de Bagosto de 22010 210:51:57 pp.m. España 4 Madrid)

published@ur@xperience.@ee@aper@ttached.@here@eems@o@e@ome@verlap@etween@he@wo.@would@ike toknow@nore@bout@heir@pattern@f@podystrophy@nd@whether@they@develop@anniculitis@r@not. Also, I wonder whether you will like to collaborate with use of dentify the genetic basis of this syndrome.

Abhimanyu Garg, M.D. Professor@f@nternal@Medicine Chief, Division of Nutrition and Metabolic Diseases Endowed Chair In Human Nutrition Research UTISouthwestern Medical Center at Dallas 5323 Harry Hines Blvd., IK5-214 Dallas. #TX #75390-8537 (214) \$648-2895 (Iphone) (214)5548-0553E(Fax)

Asunto: CANDLE syndrome

Abhimanyu Garg



J Clin Endocrinol Metab, September 2010, 95(9):0000-0000

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TABLE 1. Clinical features in our patients and previously reported patients from Japan: comparison with other progeroid syndromes due to laminopathies

	JMP 100.3	JMP 200.3	JMP 200.4	Japan 1 (3)	Japan 2 (3)	Japan 3 (6)	MAD (8, 12)	HGPS (13, 14)	APS (15)
Consanguinity	No	No	No	Yes	Yes	No	+/-	No	No
Sex	M	M	F	M	F	F	M/F	M/F	M/F
Age at report (yr)	35	30	26	47 <sup>a</sup>	51	38	1–56	1–20	5-53
Age of onset (yr)	NA	6	14	12	6	1.5	2-4	1–3	4-17
Sclerodermatous skin and erythematous lesions	+	+	+	+	+	+	+	+	+/-
Lipodystrophy	+	+	+	+	+	+	+	+	+
Joint contractures	+	+	+	+	+	+	+	+	+
Seizures	-	+	+	_	_	_	_	_	_
Mental retardation	-	_	_	+	+	+	_	_	_
Basal ganglia Calcification	NA	+	NA	=	+	+	=	=	=
Microcytic anemia	+	+	+	_	_	_ <i>b</i>	_	_	_
Hypergammaglobulinemia	+	+	+	+	+	+	_	_	_
Elevated ESR	+	NA	NA	+	+	+	_	_	_
Muscle atrophy	+	+	+	+	+	_	_	_	_
Corneal opacities	+	_	_	_	_	_	_	_	_
Gynecomastia	+	-	NR	_	NR	NR	_	_	_
Short stature	+	+	+	_	+	+	+	+	+
Diabetes	-	_	_	+	IGT	_	+/-	_	+/-
Hypertrig <b>l</b> yceridemia	_	-	_	_	_	_	+/-	_	+/-
Low HDL cholesterol	+	+	+	NA	NA	NA	+/-	+/-	+/-
Hepatomegaly	+	+	+	+	+	+	+/-	_	+/-
Splenomegaly	+	+	+	+	+	+	_	_	_
Macroglossia	_	_	-	+	+	_	_	-	_

Hypertriglyceridemia was defined as fasting serum triglycerides greater than 200 mg/dl. M, Male; F, female; -, absent; +, present; +/-, present in some and absent in others; NA, not available; NR, not relevant; IGT, impaired glucose tolerance; MAD, mandibuloacral dysplasia due to LMNA or ZMPSTE24 mutations; HGPS, Hutchinson-Gilford Progeria syndrome; APS, atypical progeroid syndrome; ESR, erythrocyte sedimentation rate.

FIG. 1. Pedigrees and clinical features of our patients with JMP syndrome. A, Pedigrees of

<sup>&</sup>lt;sup>a</sup> Died at age 47 yr due to congestive heart failure.

doi:10.1016/j.ajhg.2010.10.031 | How to Cite or Link Using DOI Copyright © 2010 The American Society of Human Genetics Published by Elsevier Inc.

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#### Report

### **PSMB8** Encoding the ! 5i Proteasome Subunit Is Mutated in Joint Contractures, Muscle Atrophy, Microcytic Anemia, and Panniculitis-Induced Lipodystrophy Syndrome

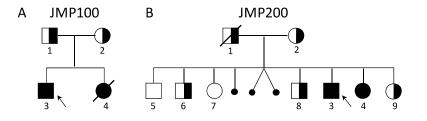
Anil K. Agarwal<sup>1</sup>, Chao Xing<sup>2</sup>, George N. DeMartino<sup>3</sup>, Dario Mizrachi<sup>4</sup>, Maria Dolores Hernandez<sup>5</sup>,

Ana Berta Sousa<sup>6</sup>, Laura Martínez de Villarreal<sup>5</sup>, Heloísa G. dos Santos<sup>6</sup> and Abhimanyu Garg<sup>1</sup>, •

- <sup>1</sup> The Division of Nutrition and Metabolic Diseases, Department of Internal Medicine and the Center for Human Nutrition, University of Texas Southwestern Medical Center, Dallas, TX 75390, USA
- <sup>2</sup> Department of Clinical Sciences, University of Texas Southwestern Medical Center, Dallas, TX 75390, USA
- <sup>3</sup> Department of Physiology, University of Texas Southwestern Medical Center, Dallas, TX 75390, USA
- <sup>4</sup> Division of Endocrinology, Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, TX 75390, USA
- <sup>5</sup> Departamento de Genética, Facultad de Medicina, Universidad Autonoma de Nuevo Leon, Monterrey, Nuevo León, 66603, México
- <sup>6</sup> Serviço de Genética Médica, Hospital de Santa Maria, 1649-035 Lisbon, Portugal Received 2 September 2010; revised 18 October 2010; accepted 25 October 2010. Published online: December 2, 2010. Available online 2 December 2010.

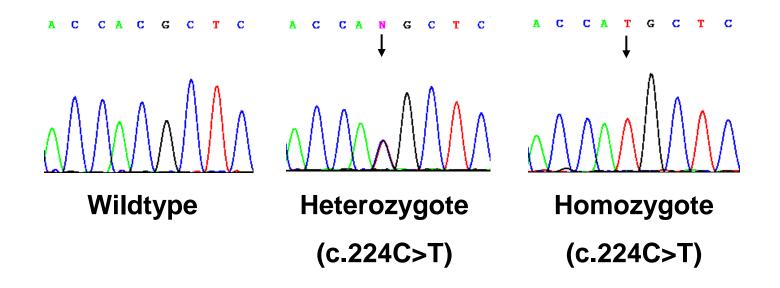
We performed homozygosity mapping in two recently reported pedigrees from Portugal and Mexico with an autosomal-recessive autoinflammatory syndrome characterized by joint contractures, muscle atrophy, microcytic anemia, and panniculitis-induced lipodystrophy (JMP). This revealed only one homozygous region spanning 2.4 Mb (5818 SNPs) on chromosome 6p21 shared by all three affected individuals from both families. We directly sequenced genes involved in immune response located in this critical region, excluding the HLA complex genes. We found a homozygous missense mutation c.224C>T (p.Thr75Met) in the proteasome subunit, beta-type, 8 (*PSMB8*) gene in affected patients from both pedigrees. The mutation segregated in an autosomal-recessive fashion and was not detected in 275 unrelated ethnically matched healthy subjects. *PSMB8* encodes a catalytic subunit of the 20S immunoproteasomes called ! 5i. Immunoproteasome-mediated proteolysis generates immunogenic epitopes presented by major histocompatibility complex (MHC) class I molecules. Threonine at position 75 is highly conserved and its substitution with methionine disrupts the tertiary structure of PSMB8. As compared to normal lymphoblasts, those from an affected patient showed significantly reduced chymotrypsin-like proteolytic activity mediated by immunoproteasomes. We conclude that mutations in *PSMB8* cause JMP syndrome, most probably by affecting MHC class I antigen processing.





### Sequencing of PSMB8

Original Spanish families (3 families- 2 Spain, 1 USA)



**Asunto:** CANDLE syndrome

Fecha: martes 11 de enero de 2011 04:31:52 p.m. España (Madrid)

De: 金澤 伸雄

A: atorrelo@aedv.es

CC: Hiroaki Ida

Dear Dr. Antonio Torrelo,

I am a Dermatologist working in Wakayama, Japan.

I have read your paper with great interest "Chronnic atypical neutrophilic dermatosis with lipodystrophy and elevated temperature (CANDLE) syndrome" published in the last year's JAAD, because I am following a series of very similar cases in Japan.

In Japan, the disease has been called Nakajo-Nishimura syndrome, which was originally reported by Nakajo in 1939 and Nishimura in 1950 as "secondary hypertrophic osteoperiostosis with pernio". The designation "Nakajo syndrome" or "Nakajo-Nishimura syndrome" was already registered in OMIM256040 and ORPHA1953 or ORPHA2615, respectively. As you reported, many of the cases show early-onset periodic fever and therefore the disease is considered a new autoinflammatory disease.

Actually, I and colleagues have reported the disease in the International Congress on FMF and Systemic Autoinflammatory Diseases since 2008. And last year, we have successfully reported the identification of its responsible genetic mutation at the latest Congress.

Therefore, we would like to ask you to let us investigate the mutation in your reported 4 patients. Furthermore, if available, the patients-oriented cells such as primary fibroblasts or immortalized B cells, would be also useful for functional assay.

I am looking forward to hearing from you soon. Thank you in advance,

(One representative photo of our patients is attached.)

Yours sincerely,

Nobuo Kanazawa, MD, PhD

Assistant Professor of Department of Dermatology, Wakayama Medical University 811-1 Kimiidera, Wakayama 641-0012, Japan

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E-mail: nkanazaw@wakayama-med.ac.jp



#### 皮膚科泌尿器科雜誌

第45塞 第2號

昭和14年(1989) 2 FL

#### 凍瘡ラ合併セル續發性肥大性骨骨膜症

A. Nakazyō: Über zwei Fälle von Osteoperiostopathia hypertrophiant secundaria mit Perniones.

东北帝國大學者學都沒資料並派告科教室(主任 伊爾敦經

平中 條

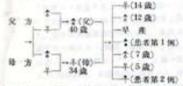
#### 緒 言

直接結婚ニペラ登スル先天性疾患。接近河研ノ空内へ枚挙へ建する考えれる。最近余八直接 結婚ノ限限ニ産レタル同様中2名ニ於テ、一見技趣形大生様症状ラ星ミル省の臨床检査」結果 とト病因ラ全ク男ニシ、助腫瘍、先天性心臓瓣模症。氣管快換損症、結構、化糖性、腐敗性疾 患等ノ患者ニ特致的ニ見コル・鼓撃状指針。四枝末端部ノ不均等肥大、管狀骨骨限肥厚ラ呈スルMarie 氏ノ所満結性肥大性骨膜治症タル事の緩ノ、且コ凍療ラ合併シ、耐へ人工的ニ容易ニ 凍瘡様症状チ形成シ得ラン、是等微核酢ノ基因トシク先天性心臓障碍ヲ様定セコル・興味アル 経費ラ経験ニタルの引きない得ラン、是等微核酢ノ基因トシク先天性心臓障碍ヲ様定セコル・興味アル 経費ラ経験ニタルの引きない得力として、

#### 倉倒(展別小社文/出版)

nr. 1 m

維野王, 死, 10歲, 初級昭和13年3月17日,



両継父母へ似べ死亡シ病名不評テキ。 扇観へ信見 裁司志ノ編師ニシテ典×健在。WaR、監性ナキ。同 施7人中。第3子早産ニシテ、島常へ第4子へ言 リ、米子ニ言ハ2歳ノ欽第2例モ 患者同様ノ土調 ラ有モリ、 領レ信ノ回題も名の現在の健全ナリ、

教育整理工規構整 2歳 / 時百日結議生徒企业 - 検前ッポリ、全身各部 / 先祖史起第二 不均等記 大り回 × 、以早 10 月 20 / ノフ液隔 7 生 v 、 之 が延年 増延 v 、 以降 - 失地部 / 勝滑 、 長大金 + 顧書 > + リ、 第二本年 3 月 3 科 7 助ル - 並 レ リ 。

現在 情格、栄養様メテ不良、肩品 108.5 cm, 健重 15.85まです、駅投会の 無感染物ニシア、智能 小提集ニ等シウ 10 ア算スルフ得ズ、姿勢へ前尾シ 維部へ行往後回見 フレ、笛内組織へ全身的ニ程度 ニ退免器箱シテ根上系が遅捻ナリ、皮膚ハー動ニ

#### 2 家族に發生した凍瘡様皮膚病變を併發した 續發性肥大性骨骨膜症

和政山縣立聯科大學改廣幹洛展器群數率(主任: 四村助教授)

四 村 長 騰 間 来 利 夫 加 縣 正 一 郎

N. Nishimura, T. Deki and S. Kato: Hypertrophic Pulmonary Osteo-Arthropathy with Pernio-like Eruption in the Two Families. (Report of the Three Cases)

積度生肥大性骨骨镁症 は 1850 年 Bamberger, Marie によつて初めて記載された疾患で肥大性齢 性骨跟链症(Marie)。 積發性增殖性骨炎(Arnold)。 讯赛性化骨性骨性骨膜炎 (Shlangenhaufer) 粵譜 我の名前で呼ばれている疾患であつて汎殺性。 對 側性の航存択指(趾) と手足の皆欲骨の肥大及び前 解, 下職物款骨の有痛性肥厚を搾い此等の病療は 主として時、心臓等の慢性疾患部ち氣管技術機能。 節結核、膜鈎、肺膜薬、肺及び縦隔費の窓性腫瘍、 餘氣隙,心臟響災症,先天性梅泥。 慢性肾炎等に 糖毒するが経には原剤の全く認めるれたい財団原 發性のものが報告されている。 Locke によれば 144 例中呼吸器疾症 112 例。補環器疾患 6 例。 湌 化器疾患 13 例。その主の疾患及び原因不明 13 例。 又高種氏によれば221個中慢性化糖性密敦性疾患 95 例。 巫性验療 45 例、统计性肝硬變症 12 例、特殊 例 18 例, 心臓障碍 15 例, 原病不明 14 例, その 数22 例であつて何れの統計に於ても緊急性疾患 として呼吸器疾患が衝倒的に多い、本疾患に皮膚 病變を併發した症例は内外共に非常に秘存で 本邦 に於ては、中條 氏の連續を併設した報告が存する のみである。 我々は2家族に養生し間も著明な様 指揮皮疹を停つた本疾患と 思われる 経例 を 経験 し、開報は何れも從兄妹同志の結婚であり。 幼時 より先づ皮膚病壁に気付き遅れて四肢末端特に手 指及び傾面に本症に特異な臨床所見を發見し、 そ の他諸龍の檢査成績が一致し且つ本症の 原登病と

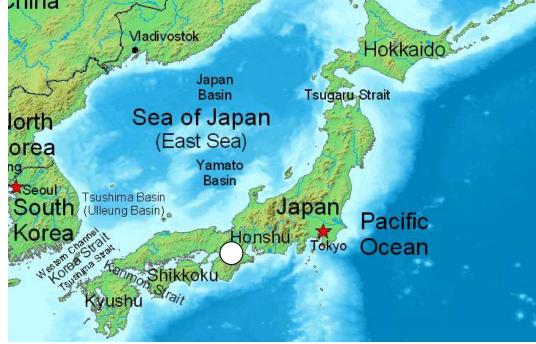
思われる疾患は全く認められない 飛講原發性のも ので色々な監で興味あると思われるので報告 し講 賢の抑訟利を得ぎたい。

控例、第1位例: 患者来澤本、18歳未帰の女子、前途: 昭和24年8月24日、家族歴: 父母は花見妹同志の関係 だわる。同胞9人。中3人死亡。 基見は5-6歳頃より **患者と全く回機な皮疹と上中身が非常に高度し、臓器の** 始んどの大樹粒で診察と受けたが診療不続のま、經過し て 15 歳の時期表にて死亡した。他2人は脚奥、ギフテキ - にて死亡、他は健在にて患者は第8番目である、数律 歴: 特別すべきしのはない、月経は未だ来離しない、現 網整: 生徒世育状態は普通で健康であったが5造域に騒 頁、耳呼郎、胸部、上肢、子等に略く左右對別性に放在性 に換載色の小豆大より豌豆大の結節が資生し必等の結構 は期次脳平となり色素沈着を晴して治療するが組まず難 生して治療せ予改症は自覺症状は殆んどなく時に僅かに 促痒感が存らた。6歳頃より教育状態が作止らた状態で 特に額面、上肢の直度が著稿となり、 小學校 2~3 年頃 より下中身に比し上中身の高度が著続となり結果な難説 及び嬴権状態となった、養命の生じ始めた頃より検券し 易く現在では労働不能状態で協食。少食、寒が6で興奮 も易く小學校時代の成績は普通であった。 現底: 機格は 非常に小、類面、頭部、上肢は非常に直復し、周恒子道は **株異な形態を示して長大。各指前期前部は膨大して典型** 的な鼓控状物を呈し暗紫色。爪には始んど嬰化を認めな る、足趾、下部は略モ正常、皮膚所見:皮膚は一般に乾 燥し軽圧、上降、前側、手、肩胛部、接着低の高度部に 一致して略く左右對個性に表在血管の走行に一致して酸



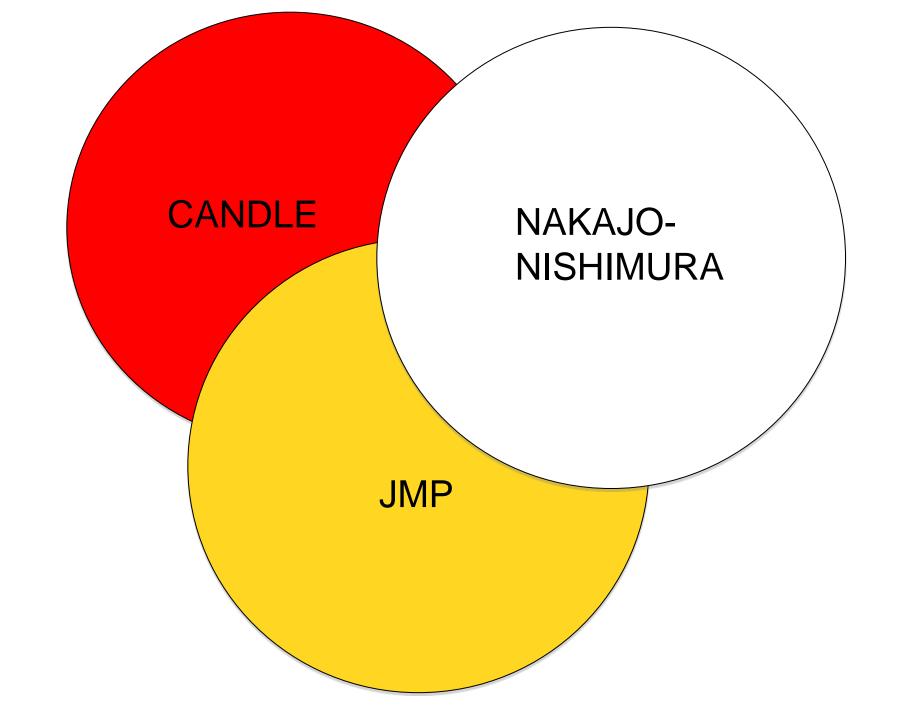














# Papular epidermal nevus with "skyline" basal cell layer (PENS)

Antonio Torrelo, MD, a Isabel Colmenero, MD, b Leonard Kristal, MD, Lourdes Navarro, MD, a Christian Hafner, MD, Angela Hernández-Martín, MD, Luis Requena, MD, and Rudolf Happle, MD Madrid, Spain; Stony Brook, New York; and Regensburg and Marburg, Germany

Background: Several types of epidermal keratinocytic nevus are recognized.

**Objective:** We sought to describe a previously unreported keratinocytic nevus with distinctive clinical and histopathologic features in 5 patients.

**Methods:** We performed a clinical and photographic review, and obtained skin biopsy samples for histopathologic examination from each patient. Genetic analysis to screen for fibroblast growth factor receptor 3 and phosphatidylinositol 3-kinase, catalytic, alpha hotspot mutations was performed on lesional skin from two patients.

**Results:** Five infants (2 male, 3 female) had from 1 to 11 lesions present since birth. These consisted of 1- to 7-mm hyperkeratotic papules with a rough, flat surface and a round, commalike, rectangular, or polygonal shape. Histopathologic examination showed acanthosis with broad and rectangular rete ridges, and strikingly arranged basal cells with palisaded nuclei. Genetic testing on paraffin-embedded specimens from two patients ruled out hotspot mutations in the fibroblast growth factor receptor 3 and phosphatidylinositol 3-kinase, catalytic, alpha genes.

Limitations: A small number of patients are presented.

Conclusion: We propose the name "papular epidermal nevus with 'skyline' basal cell layer" (PENS) for this newly recognized condition. (J Am Acad Dermatol 10,1016/j.jaad.2010.02.054.)

Key words: congenital nevus; epidermal nevus; keratinocytic nevus; nevus; newborn; skin hamartoma.

## Primer caso

- Niña, RN, embarazo y parto normales
- Desde el nacimiento: 11 pápulas (cuello. axila, tronco, muslo, piernas y brazos)
- No otros síntomas o signos









**TABLE.** Summary of patients

Patient	Age of onset	Sex	No of lesions	Distribution
1	Birth	M	1	Right leg
2	Birth	F	3	Neck, left thigh, left buttock
3	Birth	M	6	Right neck, left neck, right thigh, left thigh, right leg and right shoulder
4	Birth	F	7	Left cheek (2), neck, left shoulder, right arm, right thigh, and left ankle
5	Birth	F	11	Neck, abdomen (3), right axilla, right forearm (2), right thigh, left thigh, and left leg (2)

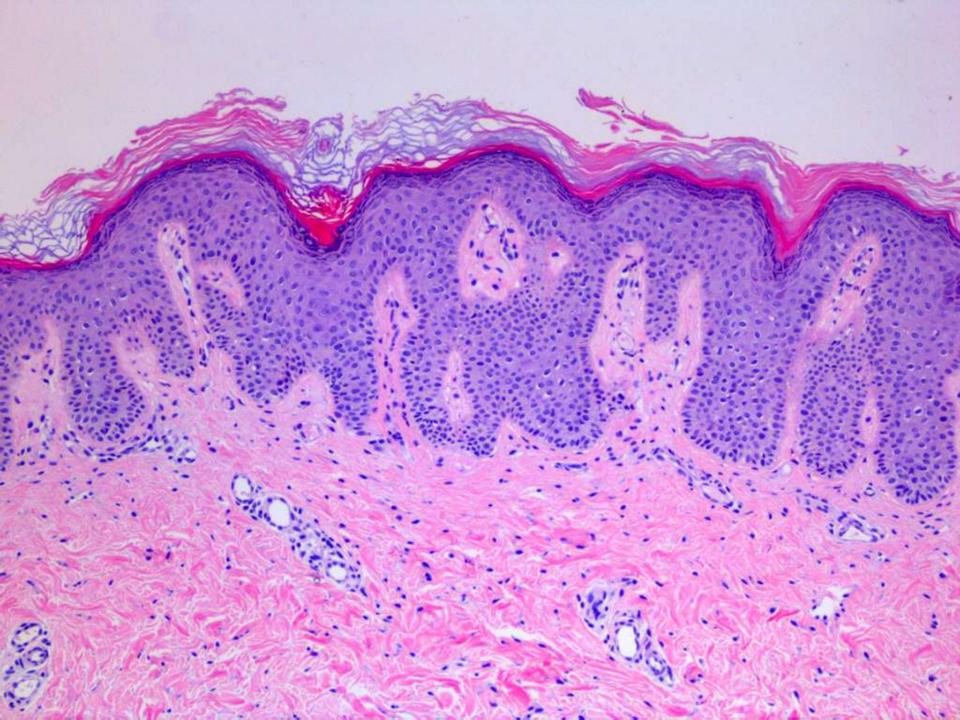


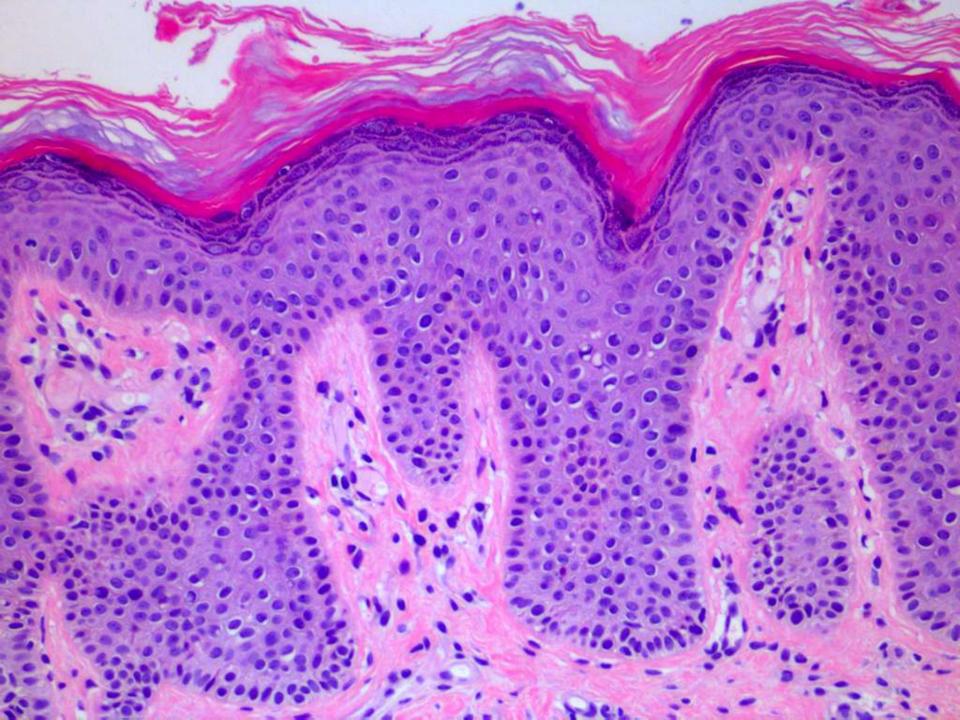


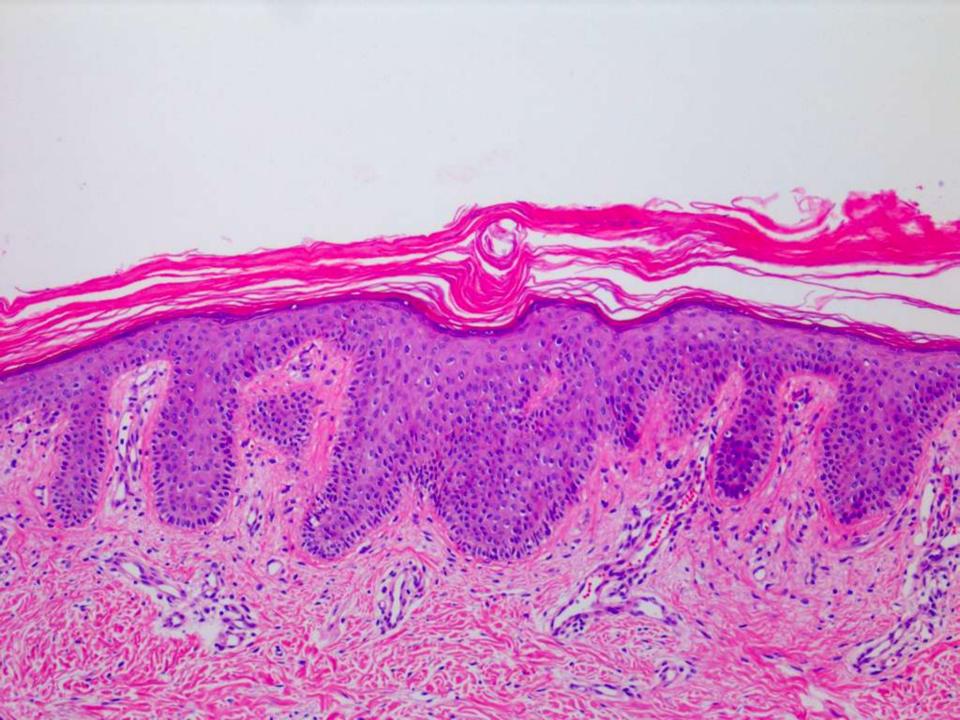


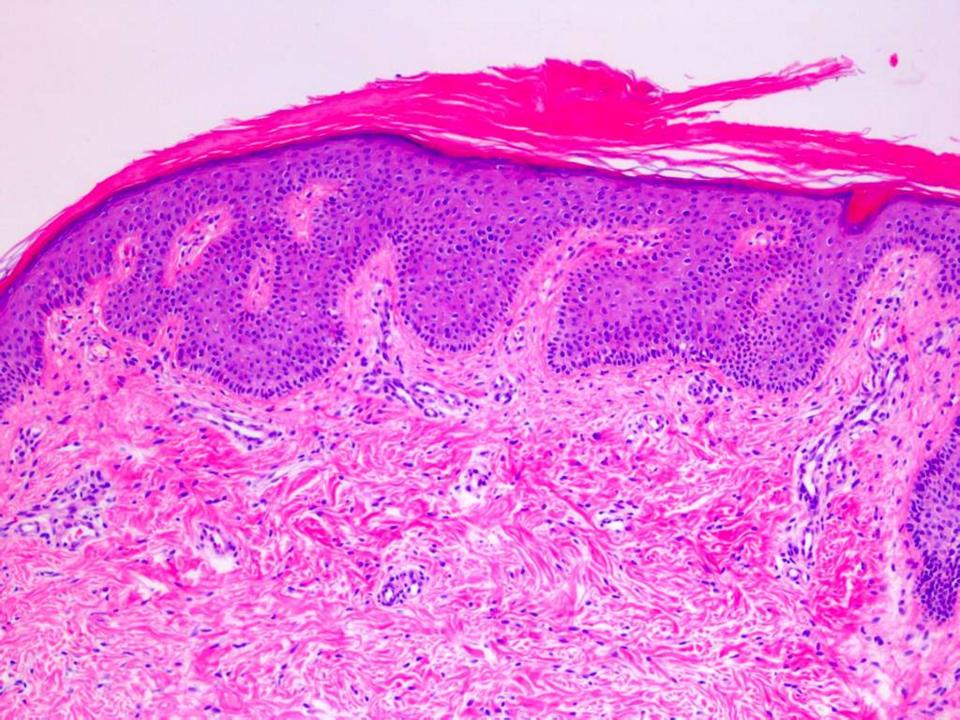
# Histopatología

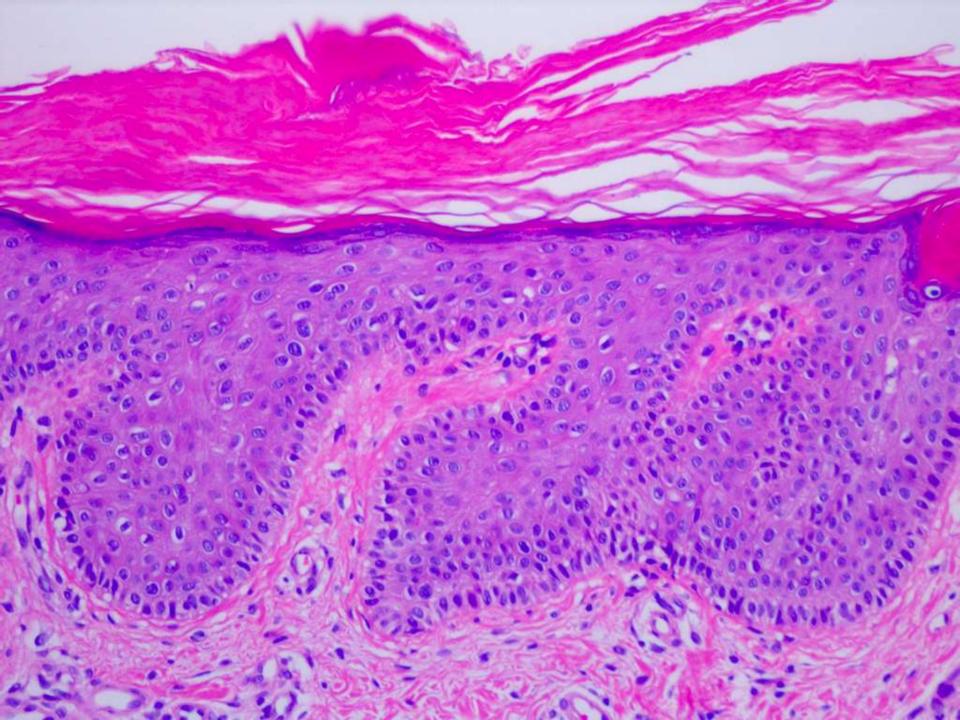
- Hiperqueratosis ortoqueratósica compacta, acantosis.
- Crestas interpapilares anchas y rectangulares
- Capa basal con llamativa empalizada de los núcleos
- Simula el patrón en horizonte "skyline" o en lápiz de ojos "eyeliner" descrito en la enfermedad de Bowen
- No cambios en la dermis

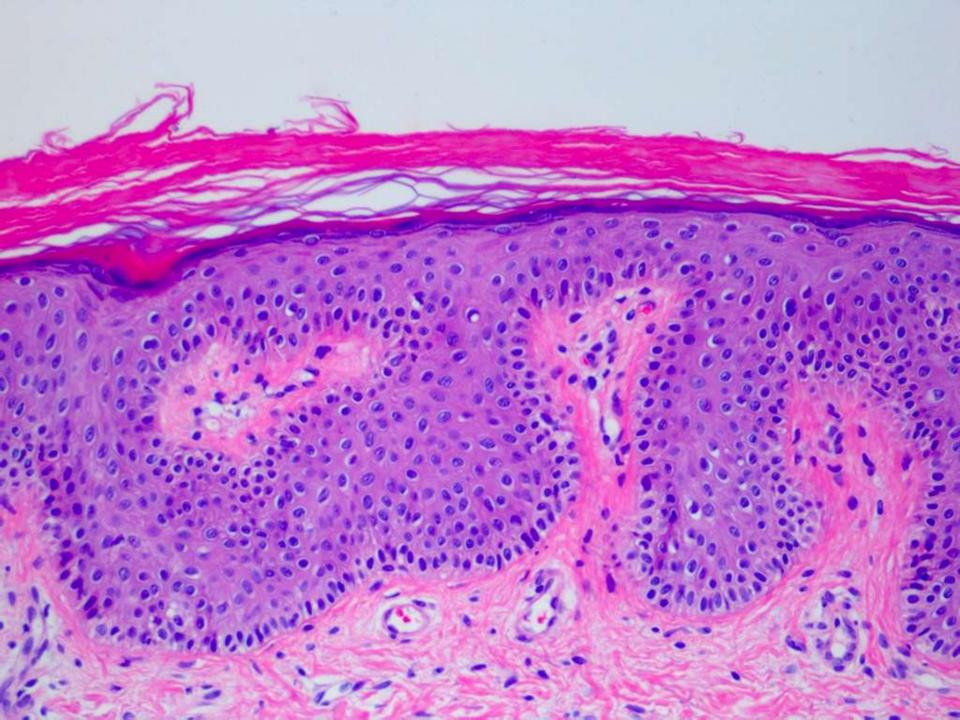












# Estudios complementarios

#### Mutaciones analizadas:

- FGFR3 hotspots mutations (R248C, S249C, G372C, S373C, Y375C, G382R, A393E, K652E, K652M, K652Q, K652T)
- PIK3CA hotspots mutations (E542K, E545G, E545K, E545Q, H1047L, H1047R)

Se descartan todas las mutaciones en FGFR3 y PIK3CA que originan nevus epidérmicos

PENS es una nueva entidad

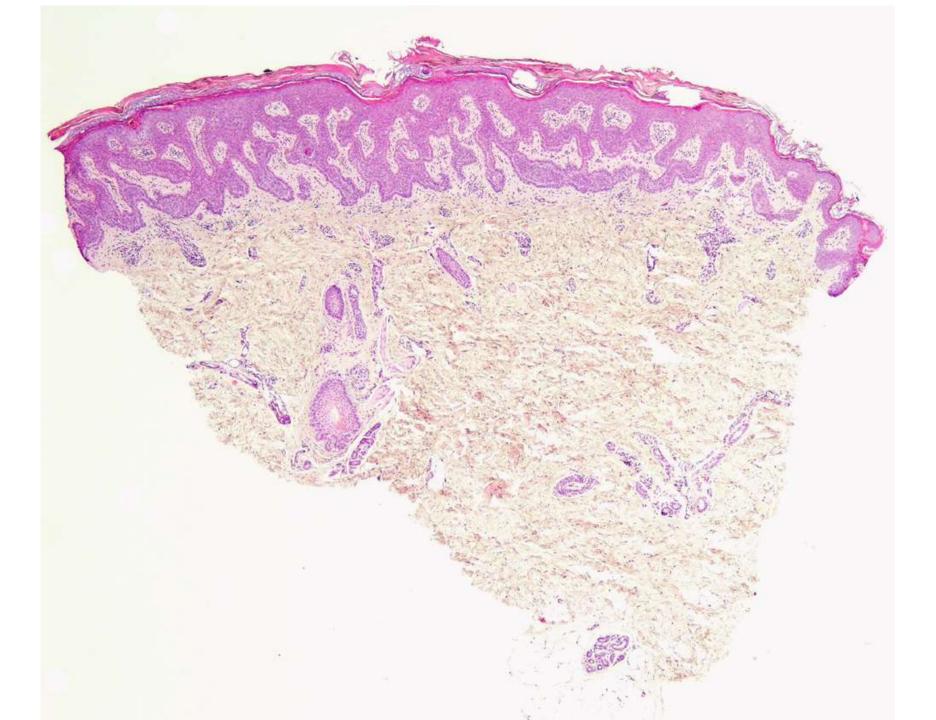
# Seguimiento del síndrome

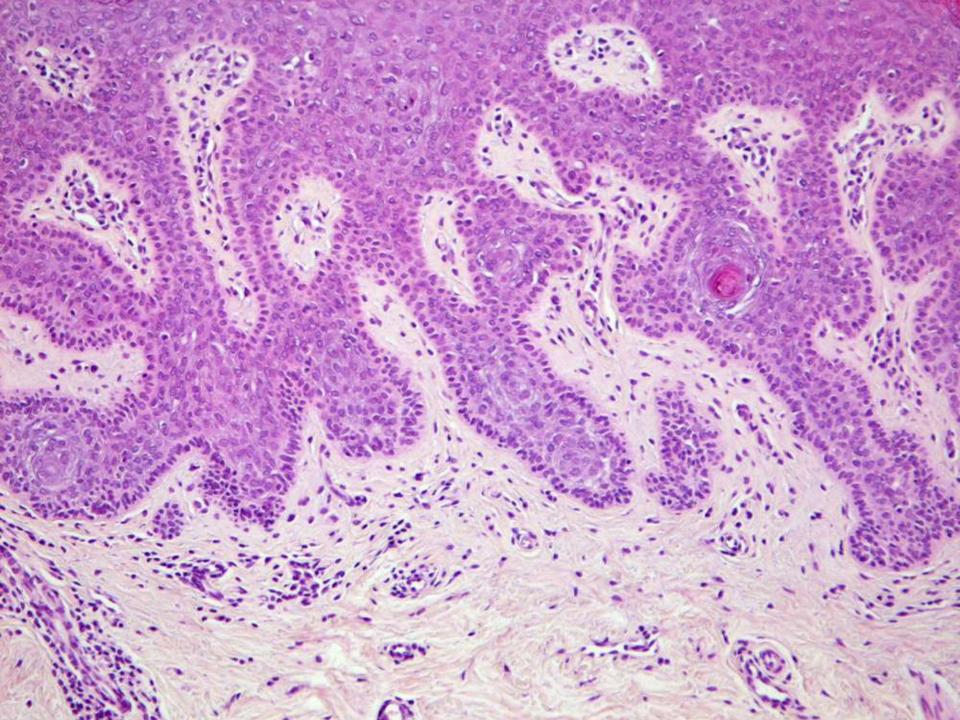


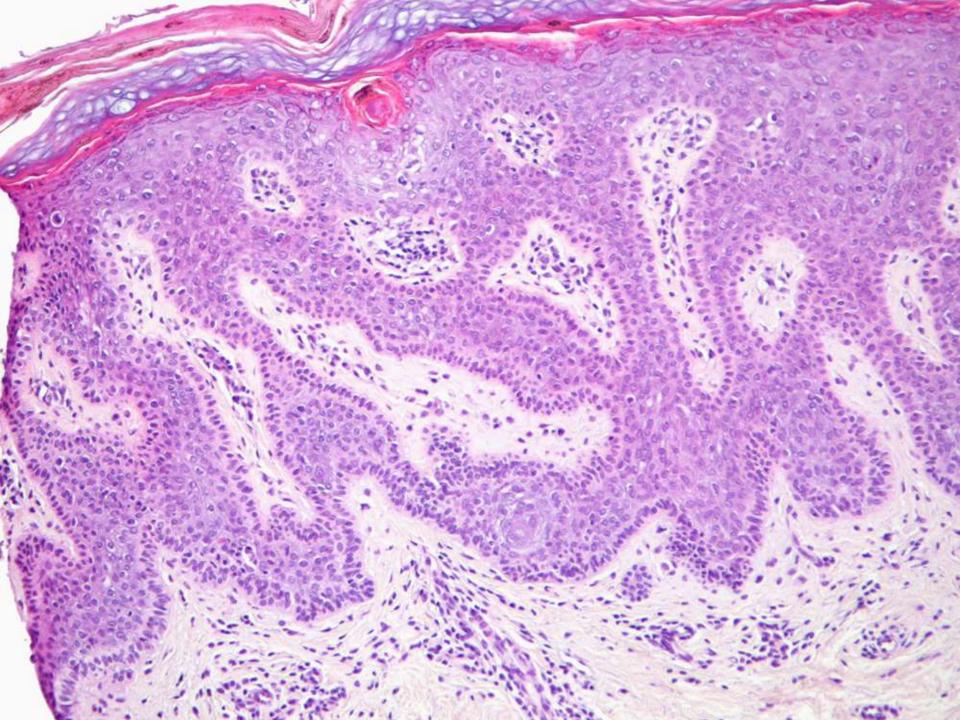
# Dr. Sergio González (Chile)

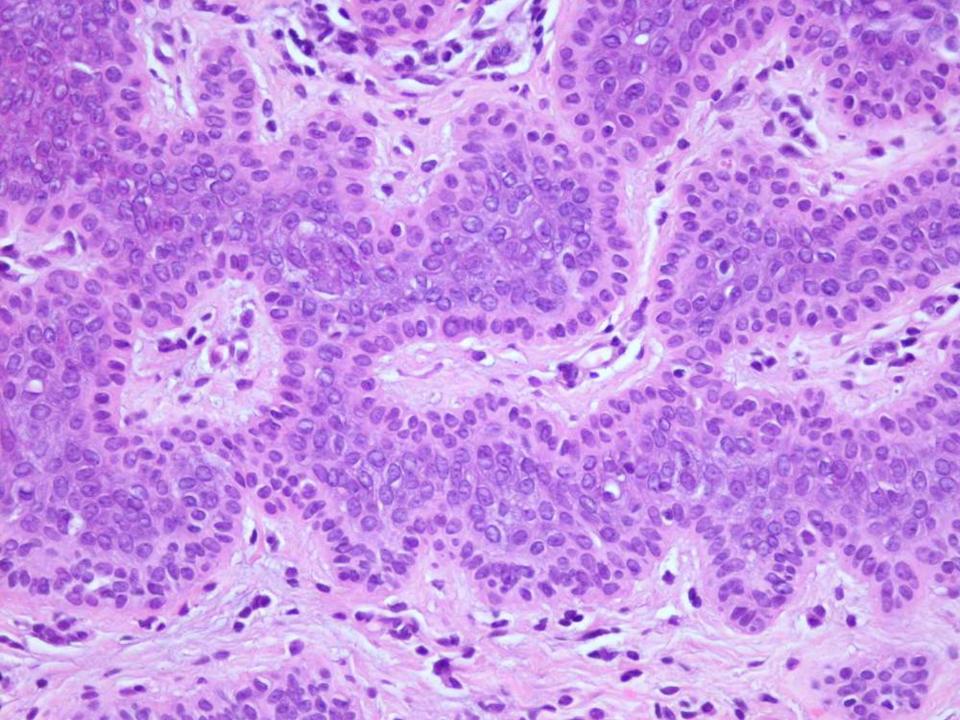














# Folliculocystic and collagen hamartoma of tuberous sclerosis complex

Antonio Torrelo, MD,<sup>a</sup> Smail Hadj-Rabia, MD,<sup>b</sup> Isabel Colmenero, MD,<sup>c</sup> Robert Piston, MD,<sup>d</sup> Virginia P. Sybert, MD,<sup>d</sup> Helena Hilari-Carbonell, MD,<sup>e</sup> Angela Hernández-Martín, MD,<sup>a</sup> Joan C. Ferreres, MD,<sup>f</sup> Sergio Vañó-Galván, MD,<sup>a</sup> Daniel Azorín, MD,<sup>c</sup> Javier Enríquez de Salamanca, MD,<sup>g</sup> Luis Requena, MD,<sup>h</sup> Christine Bodemer, MD,<sup>b</sup> Rudolf Happle, MD,<sup>i</sup> Vicente García-Patos, MD,<sup>e</sup> and Sylvie Fraitag, MD, Madrid and Barcelona, Spain; Paris, France; Seattle Washington; and Marburg, Germany

**Background:** Tuberous sclerosis complex (TSC) is an autosomal dominant disorder characterized by tumors and hamartomas in several organs including the skin.

Objective: We sought to describe a new type of complex hamartoma in patients with TSC.

Methods: This was a retrospective clinical and histopathologic evaluation of 6 cases.

**Results:** The skin lesions consisted of large, painless, infiltrated plaques that were first noticed at birth or during early infancy on the abdomen, thigh, back, or scalp. In time, the plaques became studded with numerous follicular comedo-like openings and cysts containing and draining a keratinous or purulent material. The main histopathologic features were: abundant collagen deposition in the dermis and extending into the underlying fat; concentric, perifollicular fibrosis surrounding hair follicles; and comedones and keratin-containing cysts lined by infundibular epithelium, some of which were ruptured with secondary granulomatous reaction. Five of the 6 patients had a clinical diagnosis of TSC.

Limitations: Genetic testing was performed in only one patient.

Conclusion: This distinctive folliculocystic and collagen hamartoma has not been recognized previously in association with TSC. (J Am Acad Dermatol 10.1016/j.jaad.2011.04.002.)

# Primer caso

- Niño con esclerosis tuberosa
- Gran lesión en el abdomen desde muy pequeño
- Formación de comedones
- Grandes quistes infundibulares, que drenan y supuran







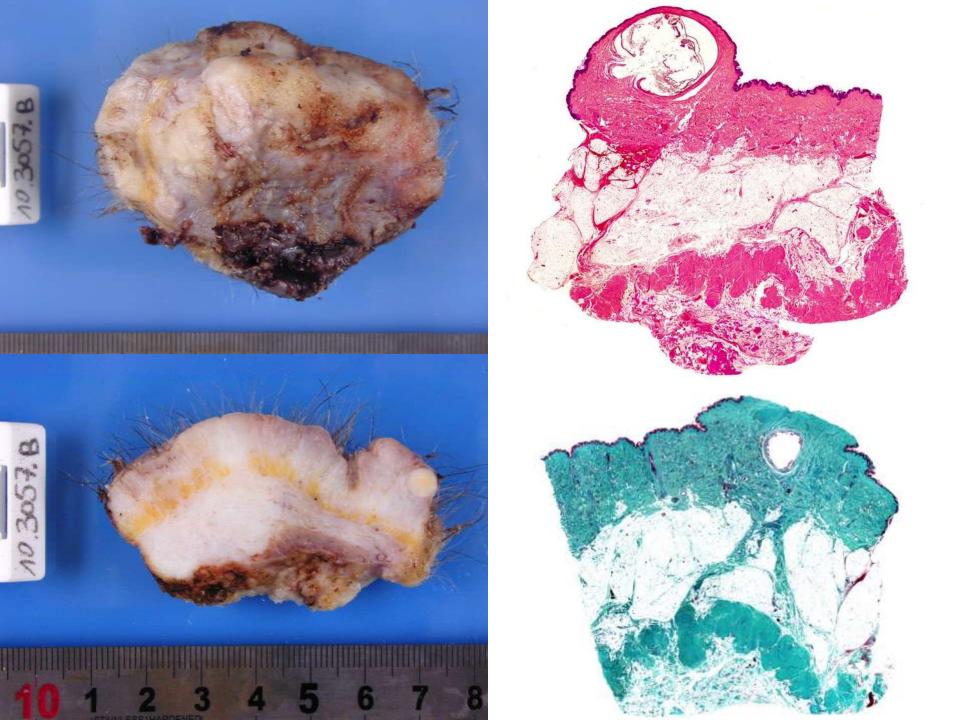


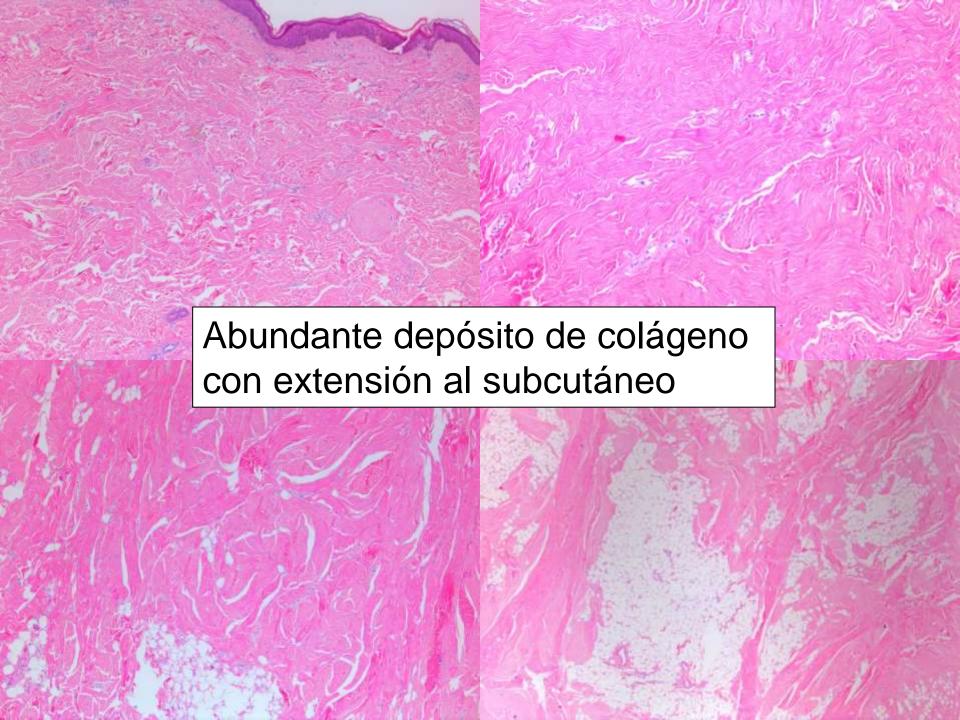
## Resumen de los casos clínicos

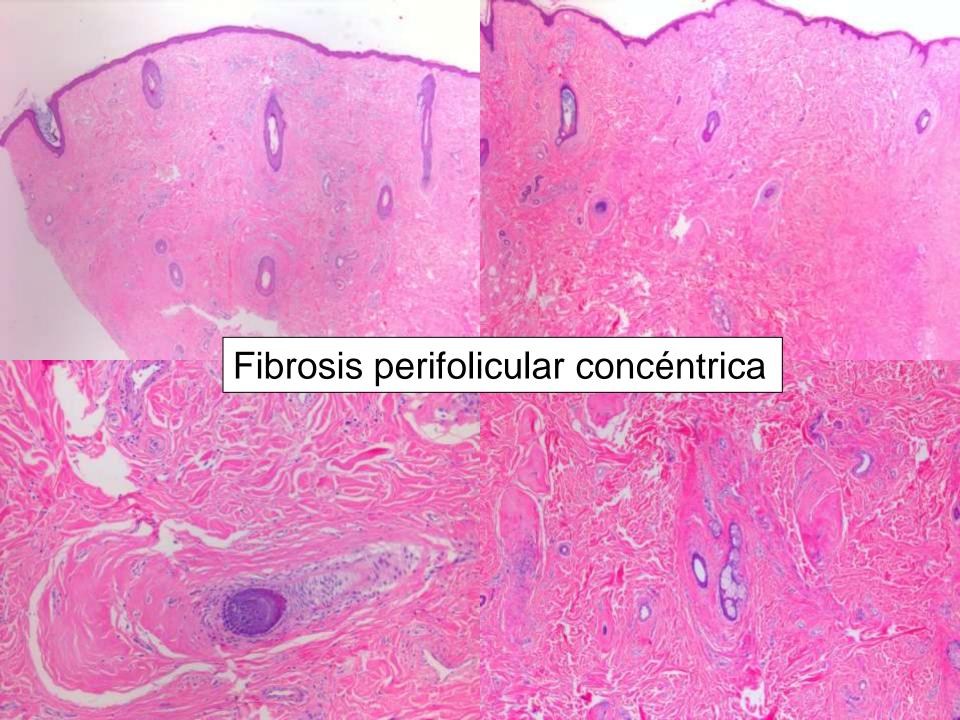
Patient	Sex	Age of onset	Location	Illness
1	M	Early infancy	Abdomen	Definite TS
2	M	Birth	Posterior right thigh	None
3	M	Birth	Back	Definite TS
4	M	Birth	Jaw, back	Definite TS
5	M	Birth	Scalp	Definite TS
6	M	Birth	Scalp	Definite TS

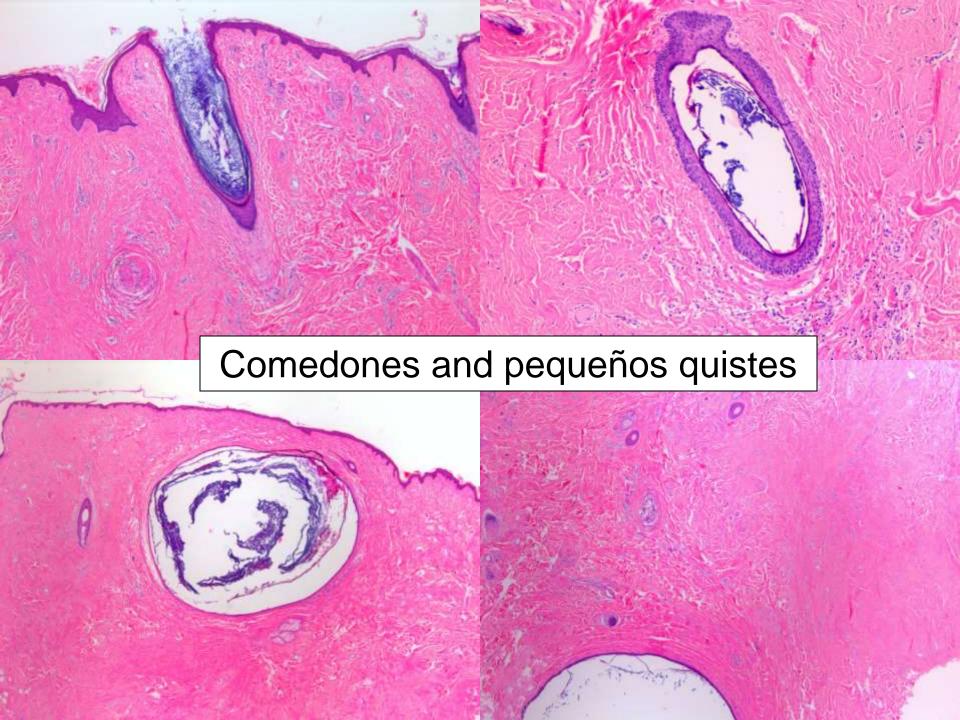


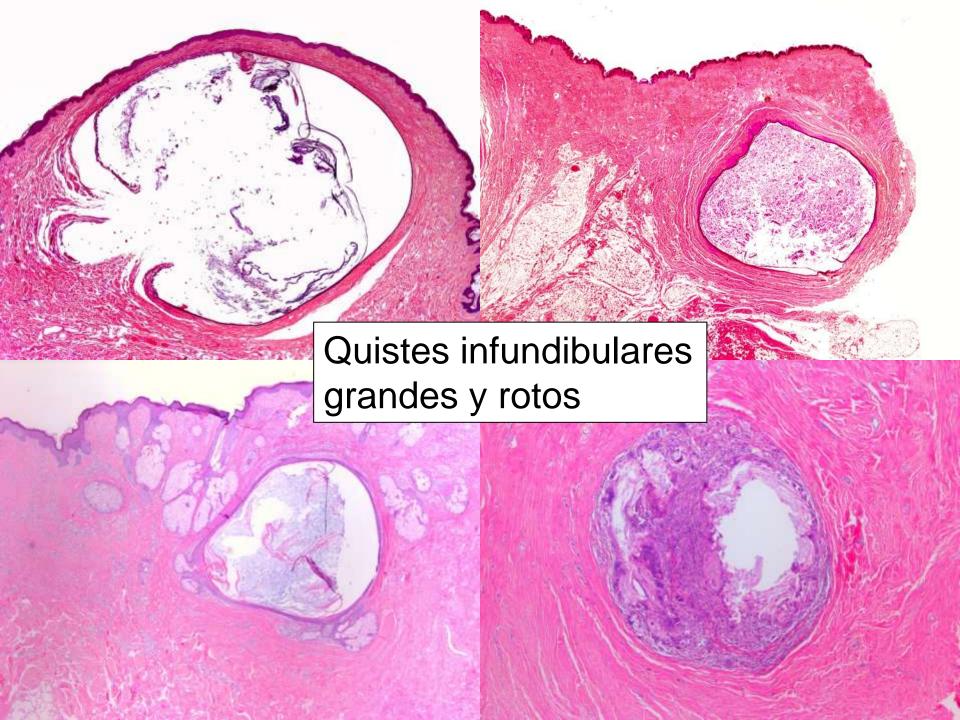












# Diagnóstico diferencial: otros nevus de colágeno

- Colagenoma familiar
- Nevus colágeno aislado
- Nevus colágeno gigante
- Placa chagrín / frontal

Un 'nuevo' tipo de hamartoma colágeno y foliculoquístico

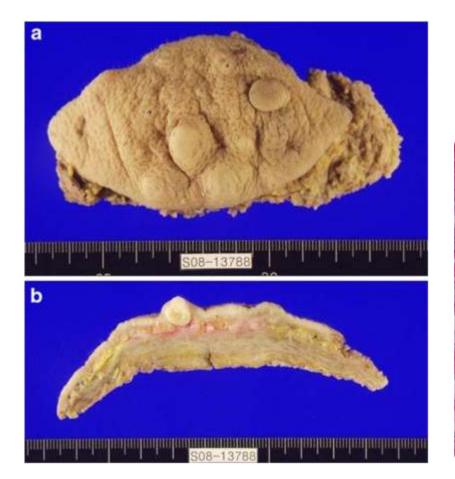
### Casos de la literatura

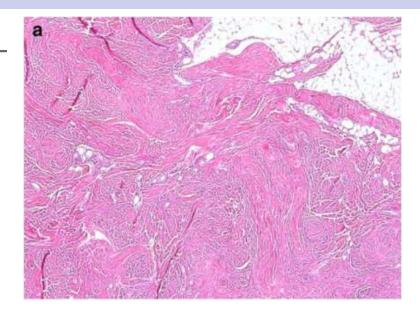
Pediatr Radiol (2009) 39:743-746 DOI 10:1007/s00247-009-1218-5

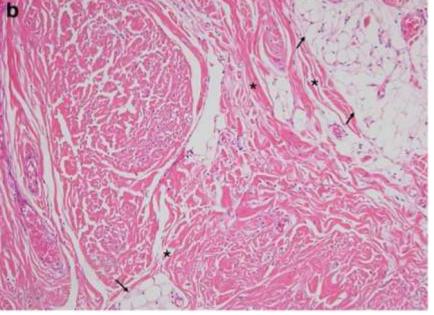
CASE REPORT

#### A large infiltrating fibrous hamartoma of infancy in the abdominal wall with rare associated tuberous sclerosis

Hye-Jeong Han · Gye-Yeon Lim · Chang-Young You







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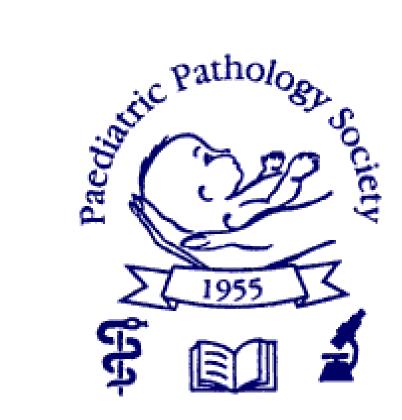
e-mail: elisabeth.bruder@unibas.ch (Include your short CV).

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# Additional patient from Israel ??











#### A Syndrome With Nodular Erythema, Elongated and Thickened Fingers, and Emaciation

Yukio Kitano, MD; Etsuji Matsunaga, MD; Toshie Morimoto, MD; Natsuko Okada, MD; Shigeharu Sano, MD

• A 5-year-old boy had a modular erythema, etongated and thickened fingers, and emaciation. His condition was a rare congenital disease inherited as an autosomal recessive trait. Eleven cases have been previously reported in the Japanese literature. The consot is early in chidhood, and nodular erythema is an essential and initial finding. Growth retardation and emaciation progress slowly with age. The characteristic clinical features include large eyes, nose, lips, and ears, dispreportionately long and thick fingers, and the loss of adipose tissue from the upper half of the body. Cardiomegaly and hypertrophy of the periosteums of the phalanges have been described in some cases.

(Arch Dermatol 1985; 121: 1053-1056)

of previously reported cases, and to draw the attention of dermatologists elsewhere in the world to this unusual syndrome.

#### REPORT OF A CASE

A 5-year-old buy was first seen in July 1983 for recurrent crythema and atrophy of the upper extremities. The family history was noncontributory, except for the consanguinous marriage of paternal grandparents. The patient had a normal, beathy 5-year-old sister.

Our patient was born at full term and weighed 2,380 g at birth. An erythema of the right check developed at 2 mooths of age in August 1976. Thereafter, erythematous patches appeared on the face, hands, abdomen, legs, and soles in symmetrical distribution. Each lesion disappeared within two to three weeks, leaving slight nigmentation, but

resolution of previous inflummatory lesions. Manual muscle examination revealed slight weakness, especially in the upper extremities.

Laboratory studies disclosed the following results: RBCs, 438 × 10°/cu mm; WBCs, 6,000/cu mm; hemoglobin level, 9.3 g/dL; bematocrit reading, 31.4%; mean corpuscular volume, 72 cu sm; mean corpuscular hemoglobia, 21.2 pg; mean corpuscular hemoglobin count, 29.6%. The findings were consistent with a hypochromic, microcytic anemia. Other laboratory tests revealed the following values: ESR, 40 mm/hr; serum total cholesterol, 122 mg/dL; lactic dehydrogenase, 462 units/L (normal, 100 to 400 units/L); creatine kinase, 51 IU/L (normal, 0 to 50 IU/L); aldolase, 3 IU/L (normal, 0 to 10 IU/L); total protein, 8.0 g/dL albumin, 4.8 g/dL; globulin, 3.2 g/dL; lgG, 1,011 mg/dL; (normal, 1,100 ± 234 mg/dL); IgA, 156 mg/dL (normal, 230 ± 76 mg/dL); lgM, 66 mg/dL (normal, 110 ± 48 mg/ dl.); cryoglobulin, negative; cryofibrinogen, positive. The electromyogram was normal. An ECG showed ST-wave depression in leads II, III, and aV,, changes suggestive of the presence of ventricular hypertrophy. Roentgenographic examination revealed a retardation of bone age, but neither the changes associated with cardiorespiratory dysfunction nor hypertrophy of the periosteum could be



Fig 2.—Patient's hands showing long, thickened fingers that are clubbed slightly at tips (palms were atrophic). There are numerous small, erythematous nodules.



Fig. 1.—Five-year-old boy with atrophic mandible and large protruding ears. Hands are disproportionally large. Erythematous nodules are disseminated over tace, chest, and abdomen.

Acta Neuropathol (Berl) (1987) 73:313 - 319



#### Regular papers

An autopsy case of a syndrome with muscular atrophy, decreased subcutaneous fat, skin eruption and hyper  $\gamma$ -globulinemia: peculiar vascular changes and muscle fiber degeneration\*

K. Oyanagi<sup>1</sup>, K. Sasaki<sup>2</sup>, E. Ohama<sup>2</sup>, F. Ikuta<sup>2</sup>, A. Kawakami<sup>3</sup>, N. Miyatani<sup>3</sup>, T. Miyatake<sup>3</sup>, and S. Yamada<sup>4</sup> Departments of <sup>5</sup> Neuropathology, <sup>1</sup> Pathology, and <sup>5</sup> Neurology, Brain Research Institute, Niigata University, 1 Asahimachi, Niigata 951, Japan

Department of Neurology, Akita Red Cross Hospital, Akita 010, Japan

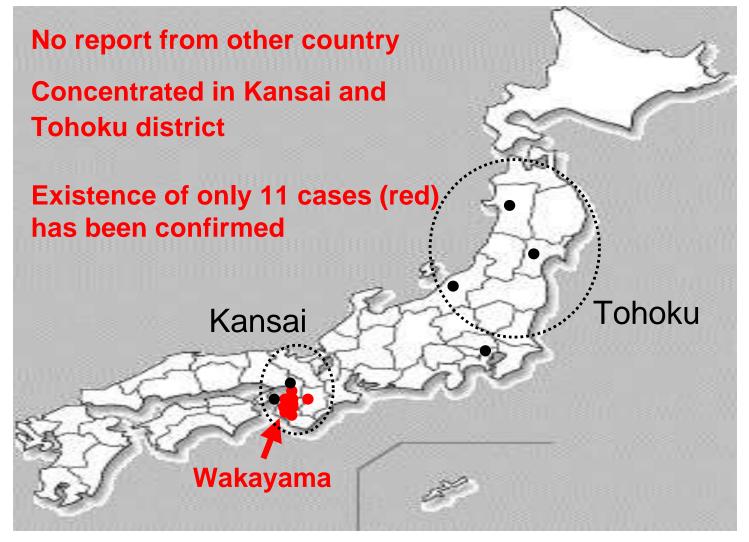
#### Hereditary Lipo-Muscular Atrophy with Joint Contracture, Skin Eruptions and Hyper-γ-Globulinemia: a New Syndrome

Masami Tanaka, Nobuyuki Miyatani, Shigeru Yamada, Kotaro Miyashita, Itaru Toyoshima, Kaori Sakuma, Keiko Tanaka, Tatsuhiko Yuasa, Tadashi Miyafake and Tadao Tsubaki\*

We previously reported two siblings with decreased subcutaneous adipose tissue, muscular atrophy, joint contractures, recurrent skin eruptions, hyper-y-globulinemia, and reduced natural killer cell activity. Some of their clinical features are similar to those of partial lipodystrophy, but they are distinct in that muscular atrophy, joint contractures and recurrent skin cruptions are not found in patients with partial lipodystrophy. Thirteen other Japanese patients with similar clinical manifestations have been reported. We propose that such cases should be considered a distinct clinical entity.

(Internal Medicine 32: 42–45, 1993)

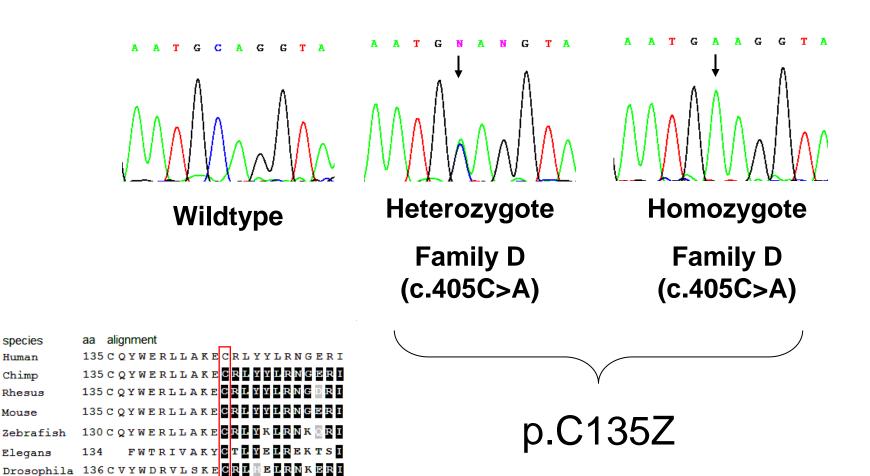
## A novel autoinflammatory syndrome



"Familial Japanese fever (FJF)"

# Sequencing of PSMB8

#### Israeli patient #1



species

Human

Chimp

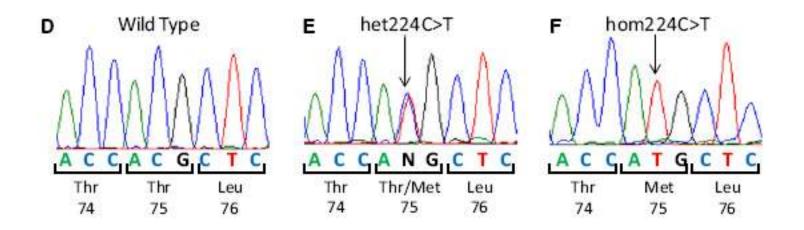
Rhesus

Elegans

Mouse

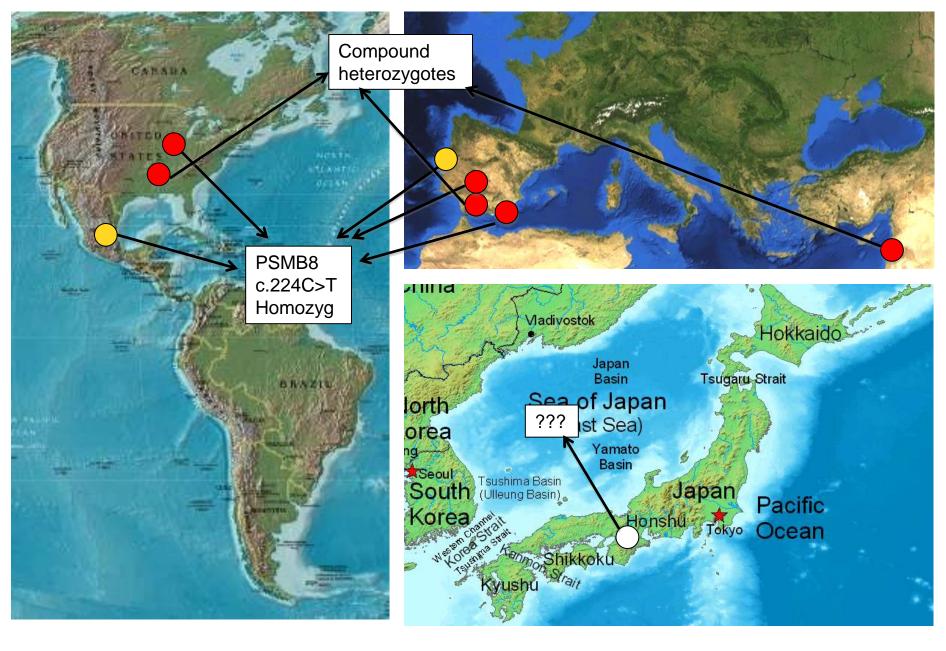
# The mutation found in 3 patients: c.224C>T

#### Same mutation as our Spanish patients



## Summary

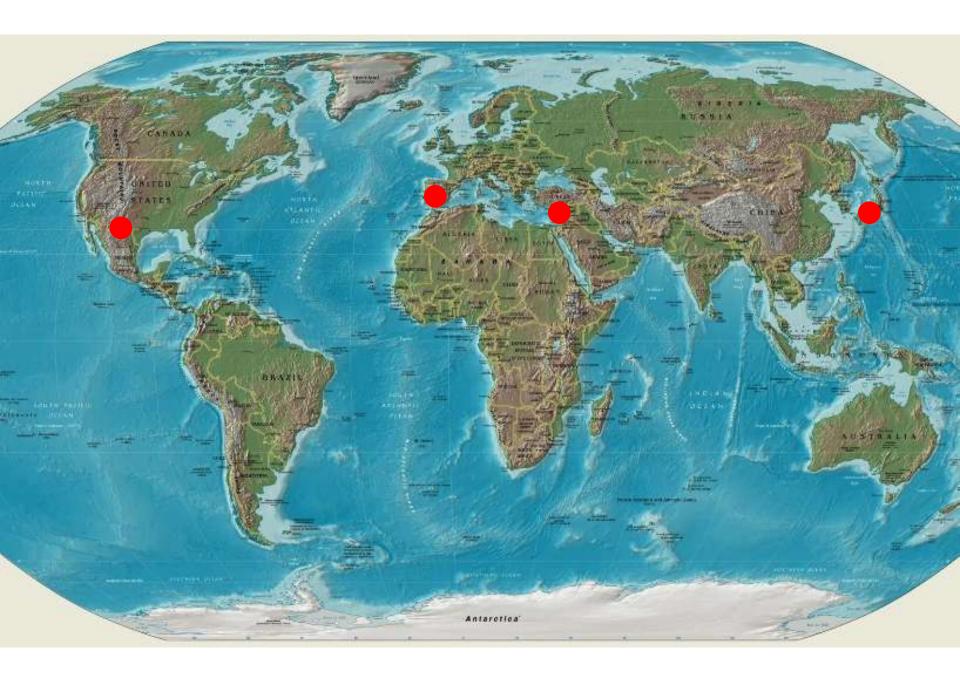
Family	Mutation
Original Spanish families (3 families)	T75M (c.224C>T, c.224C>T)
Israeli patient #1	C135Z
Patient from Malaga	c.224C>T; ?
USA patient #1	c.224C>T; ?
USA patient #2	?











## **Summary of 12 cases in Wakayama**

Case	0	1	2	3	4	5	6	7	8	9	10	11
Present ageat death)	5у	31y	43y	(32y)	38y	41y	32y	33y	(46y)	60y	(47y)	(44y)
Sex	М	F	F	М	М	М	М	М	М	M	F	М
Parental consanguinity	-	+	+	+	-	-	-	-	-	+	+	-
Family history	-	-	+	+	-	-	-	-	-	-	+	-
Age at onset of pernio	2m	6m	6m	1y10m	3m	infancy	infancy	1y	Зу	Child- hood	5y	Child- hood
Eruptions in trunk	+	±	+	-	++	++	++	+	++	++	++	++
Age at onset of fever	3m	11m	2у	Зу	7у	-		2y4m	8y	6у	Un- known	Un- known
Long clubbed fingers	+	+	+	+	+	+	+	+	+	+	+	+
Hyperhidrosis	-	+	+	+	+	+	+	-	+	+		
Partial lipoatrophy	±	±	+	±	±	++	++	++	++	++	+++	++
Hepatosplenomegaly	+	+	+	+	+	+	-	+	+	+		+
Joint contractures	-	+	-	-	+	+	+	++	+++	+++	+++	+
Loss of muscle power	-	-	-	-	-	+	+	+	+	+	+	
Dyspnea	-			+		-	-	-		+		+
Basal ganglia calcification	+	+	+	+	+	+	+	+	+	+		
Electrocardiogram	np	np	LVH	LVH	np	nd	nd	CRBBB	CRBBB	CRBBB	CRBBB	LAD
Homozygous X mutation	+	nd	nd	+	+	+	+	+	nd	nd	nd	nd



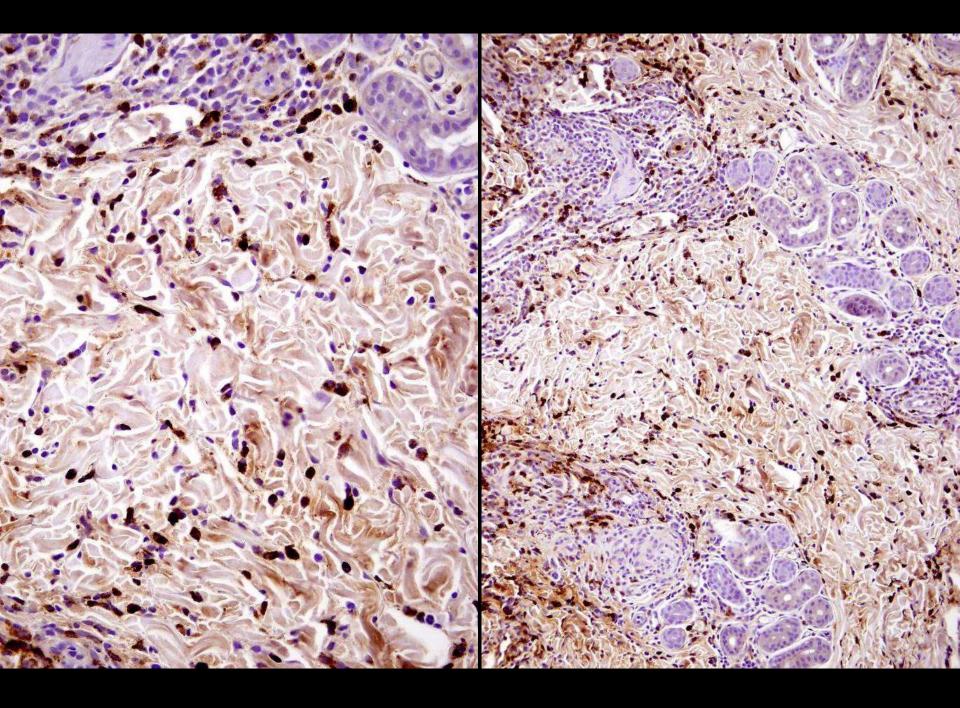
a: pernio-like purplish rash on feet (5y), b: dispasia due to gastrocnemius muscle pain, c: basal ganglia calcification on head CT (24y), d: accumulation of Tc in multiple joints on bone scintigram, e: facial appearance with emaciation and heliotrope-like periorbital rash (27y), f: histopathology of an erythematous nodule on a hand (HE, x40/400), g: long clubbed fingers, h: erythematous nodules on hands, i: MRI images of both thighs (from left to right: T1, T2, Gd-enhansed T1; 24y)



a: pernio-like swollen erythema on hands of Case 3 (3y), b: erythematous nodules on face and large circumscribed erythema on chest of case 2 (2y), c: emaciation of face and chest of Case 3 (23y), d: clubbed fingers of Case 3, e: wasting facial appearance of Case 2 (39y), f: long clubbed fingers and erythematous nodules in hands and forearms of Case 2

















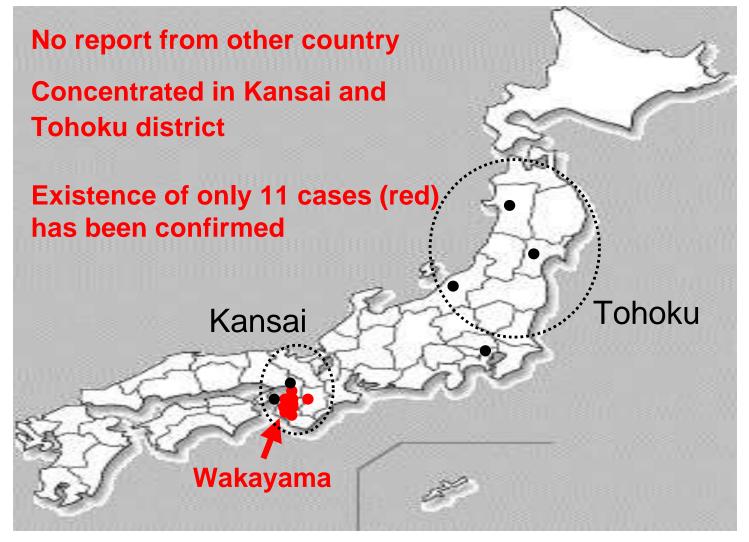




## Hipótesis?

- ET tiene que estar relacionada (5/6 casos)
- Mutaciones en hamartina o tuberina tendencia a desarrollar tumores y hamartomas
- Mosaicismo: LOH del gen de la ET durante embriogénesis precoz
  - Manifestación segmentaria tipo 2 de una enfermedad autosómica dominante
  - Puede explicar casos no asociados a ET
  - Todos los casos en varones impronta?

## A novel autoinflammatory syndrome



"Familial Japanese fever (FJF)"