

TJDO

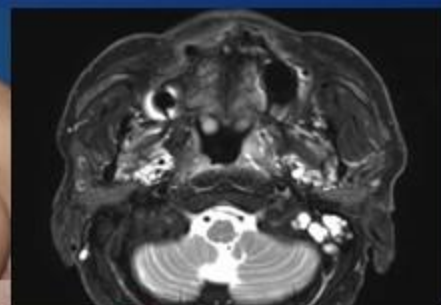
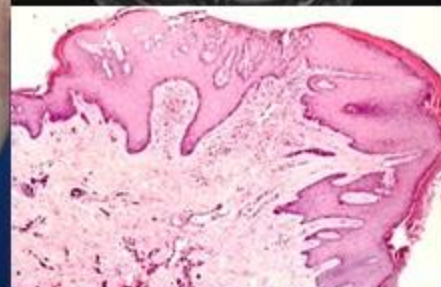
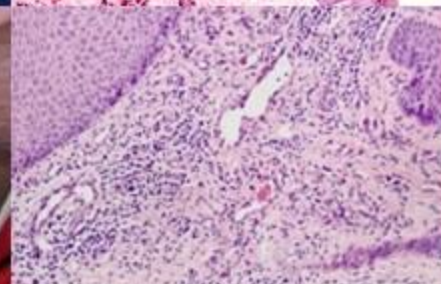


THAI JOURNAL OF DERMATOLOGY

วารสารโรคผิวหนัง

ปีที่ 42 ฉบับที่ 4 2569

Vol.42 No.4 2026



ISSN 0125-0680 (Print)
ISSN 2651-2106 (Online)



วารสารโรคผิวหนัง

ปีที่ 42 ฉบับที่ 4 ตุลาคม-ธันวาคม 2569

เจ้าของ

สมาคมแพทย์ผิวหนังแห่งประเทศไทย

วัตถุประสงค์

เผยแพร่ความรู้วิชาโรคผิวหนังแก่สมาชิกและแพทย์ทั่วไป

บรรณาธิการที่ปรึกษา

รองศาสตราจารย์แพทย์หญิง ปภาพิต ตู้จินดา

คณะแพทยศาสตร์ ศิริราชพยาบาล มหาวิทยาลัยมหิดล

รองศาสตราจารย์ดอกเตอร์แพทย์หญิง จรัสศรี พียาพรรณ

คณะแพทยศาสตร์ ศิริราชพยาบาล มหาวิทยาลัยมหิดล

บรรณาธิการ

รองศาสตราจารย์นายแพทย์ พูลเกียรติ สุขนวนิช

คณะแพทยศาสตร์ โรงพยาบาลรามธิบดี มหาวิทยาลัยมหิดล

กองบรรณาธิการ

รองศาสตราจารย์นายแพทย์ สมนัส บุญยรัตเวช

คณะแพทยศาสตร์ ศิริราชพยาบาล มหาวิทยาลัยมหิดล

รองศาสตราจารย์แพทย์หญิง ชนิษฐา วงษ์ประภารัตน์

คณะแพทยศาสตร์ ศิริราชพยาบาล มหาวิทยาลัยมหิดล

รองศาสตราจารย์แพทย์หญิง กุญฑาณ จันทร์ประภาพร

คณะแพทยศาสตร์ โรงพยาบาลรามธิบดี มหาวิทยาลัยมหิดล

นายแพทย์ ปุณณวิศ สุทธิกุลณเศรษฐ์

สถาบันโรคผิวหนัง กรมการแพทย์

รองศาสตราจารย์แพทย์หญิง ศศิมา เอี่ยมพันธุ์

คณะแพทยศาสตร์ ศิริราชพยาบาล มหาวิทยาลัยมหิดล

รองศาสตราจารย์แพทย์หญิง เพ็ญวดี พัฒนปรีชากุล

คณะแพทยศาสตร์ ศิริราชพยาบาล มหาวิทยาลัยมหิดล

รองศาสตราจารย์แพทย์หญิง วรวิพร ดิสนานุรัตน์

คณะแพทยศาสตร์ มหาวิทยาลัยธรรมศาสตร์

รองศาสตราจารย์แพทย์หญิง สุธินี รัตนิน

คณะแพทยศาสตร์ โรงพยาบาลรามธิบดี มหาวิทยาลัยมหิดล

พันโทหญิงแพทย์หญิง ชุตিকা ศรีสุทธิยากร

กองอายุรกรรม โรงพยาบาลพระมงกุฎเกล้า

แพทย์หญิง ปิ่นนรี ชัตติพัฒนางษ์

สถาบันโรคผิวหนัง กรมการแพทย์

รองศาสตราจารย์นายแพทย์ เจตน์ วิทิตสุวรรณกุล

คณะแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

ผู้ช่วยศาสตราจารย์นายแพทย์ พัลลภ จักรวิทย์ธีรารัง

คณะแพทยศาสตร์ มหาวิทยาลัยธรรมศาสตร์

ดร. นายแพทย์ ขวลิศ ทรัพย์ศรีสัญญา

สถาบันโรคผิวหนัง กรมการแพทย์

รองศาสตราจารย์นายแพทย์ มติ เชื้อมนโชนาญ

คณะแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่

นายแพทย์ นราชัย จุฬานนท์

คณะแพทยศาสตร์ มหาวิทยาลัยขอนแก่น

แพทย์หญิง สิริพรรณ สังข์มาล

คณะแพทยศาสตร์ มหาวิทยาลัยสงขลานครินทร์

แพทย์หญิง ภัทริยา จิรวรรณาดล

คณะแพทยศาสตร์ ศิริราชพยาบาล มหาวิทยาลัยมหิดล

บรรณาธิการฝ่ายเทคนิค

รองศาสตราจารย์แพทย์หญิง เปรมจิต จันทองจีน

วิทยาลัยแพทยศาสตร์นานาชาติจุฬาภรณ์

มหาวิทยาลัยธรรมศาสตร์

บรรณาธิการฝ่ายสถิติและ

ระเบียบวิธีวิจัย

รองศาสตราจารย์นายแพทย์ กุลวัตร ธาดานิพนธ์

คณะแพทยศาสตร์ โรงพยาบาลรามธิบดี มหาวิทยาลัยมหิดล

บรรณาธิการฝ่ายสื่อสารดิจิทัล

นายแพทย์ ณัฐชาติ จุไรรัตน์ภรณ์

คณะแพทยศาสตร์ โรงพยาบาลรามธิบดี มหาวิทยาลัยมหิดล

ผู้จัดทำและรวบรวม

นางสาวณิยวรรณ เกษปรีชาสวัสดิ์

อติบรณการ	อ.นพ.ธาดา เปี่ยมพงศ์สานต์	พ.ศ.2528
	อ.พญ.กนก บุณยะรัตเวช	พ.ศ.2529-2531
	ศ.นพ.สมยศ จารุวิจิตรรัตน์	พ.ศ.2531-2535
	อ.นพ.หาญ วงศ์ไวยสุวรรณ	พ.ศ.2535-2537
	ศ.นพ.สมยศ จารุวิจิตรรัตน์	พ.ศ.2538-2539
	รศ.นพ.ป่วน สุทธิพิณิจธรรม	พ.ศ.2539-2542
	รศ.พญ.พรทิพย์ ภูวบัณฑิตสิน	พ.ศ.2542-2549
	รศ.พญ.ณัฐฐา รัชตะนาวิน	พ.ศ.2549-2563
	ศ.พญ.วรัญญา บุญชัย	พ.ศ.2563-2567
	รศ.ดร.พญ.จรัสศรี พียาพรรณ	พ.ศ.2567-2569

การบอกรับ
สำนักงานวารสารฯ สามารถดาวน์โหลดที่ <https://he02.tci-thaijo.org/index.php/TJD/issue/archive>
อาคารเฉลิมพระบารมี ๕๐ ปี ชั้น 9 เลขที่ 2 ซ.ศูนย์วิจัย ถ.เพชรบุรีตัดใหม่
แขวงบางกะปิ เขตห้วยขวาง กรุงเทพฯ 10310

ขอบเขตเนื้อหาของผลงานที่จะได้รับตีพิมพ์

ขอบเขตเนื้อหาของผลงานที่จะได้รับการตีพิมพ์ในวารสารโรคผิวหนัง มีดังนี้

1. บทบรรณาธิการที่น่าสนใจ (Editorial's View) เป็นบทความต่างๆ ที่น่าสนใจและเป็นประเด็นสำคัญทางการแพทย์ในสาขาวิชาตจวิทยา ที่ควรนำเสนอโดยกองบรรณาธิการ
2. นิพนธ์ต้นฉบับ (Original Article) ได้แก่ ผลงานวิจัยหรือประสบการณ์จากการดำเนินการที่เกี่ยวข้องกับสาขาวิชาตจวิทยา
3. ฟันฟูวิชาการ (Review Article) เป็นการทบทวนองค์ความรู้เกี่ยวกับการแพทย์และการสาธารณสุขในสาขาวิชาตจวิทยา ประเด็นที่มีความสำคัญและเป็นปัญหาหรือมีนวัตกรรมที่น่าสนใจ
4. รายงานผู้ป่วยเป็นกรณีศึกษาหรือกรณีตัวอย่างของผู้ป่วยที่เป็นโรคหรือสภาวะที่พบบ่อยและเป็นที่น่าสนใจทางสาขาวิชาตจวิทยา

นโยบายการพิจารณาถ่วงน้ำหนักบทความ

1. บทความที่จะได้รับการตีพิมพ์ ต้องผ่านการพิจารณาถ่วงน้ำหนักจากผู้ทรงคุณวุฒิ(Peer Review) ในสาขาที่เกี่ยวข้อง จำนวนอย่างน้อย 3 ท่าน ต่อบทความ
2. บทความที่จะได้รับการตีพิมพ์ต้องไม่เคยตีพิมพ์เผยแพร่ที่ไหนมาก่อนและต้องไม่อยู่ในกระบวนการพิจารณาของวารสารหรือวารสารอื่นใด
3. กองบรรณาธิการขอสงวนสิทธิ์ในการพิจารณาและตัดสินใจตีพิมพ์บทความในวารสาร

กำหนดออก

ปีละ 4 ฉบับ (มีนาคม, มิถุนายน, กันยายน, ธันวาคม) นโยบายวารสาร ไม่มีค่าใช้จ่าย ในการเผยแพร่

Thai Journal of Dermatology

Vol.42 No.4 October-December 2026

Publisher

Dermatological Society of Thailand

Objective

Promoting excellence in the practice of dermatology

Consulting Editor

Assoc. Prof. Papapit Tuchinda

Siriraj Hospital, Mahidol University

Assoc. Prof. Dr. Charussri Leeyaphan

Siriraj Hospital, Mahidol University

Editor-in-Chief

Assoc. Prof. Poonkiat Suchonwanit

Ramathibodi Hospital, Mahidol University

Editorial Board

Assoc. Prof. Sumanas Bunyaratavej

Siriraj Hospital, Mahidol University

Assoc. Prof. Chanisada Wongpraparut

Siriraj Hospital, Mahidol University

Assoc. Prof. Kumutnart Chanpraph

Ramathibodi Hospital, Mahidol University

Dr. Poonnawis Sudtikoonaseth

Institute of Dermatology

Assoc. Prof. Sasima Eimpunth

Siriraj Hospital, Mahidol University

Assoc. Prof. Penvadee Pattanaprichakul

Siriraj Hospital, Mahidol University

Assoc. Prof. Wareeporn Disphanurat

Thammasat Hospital

Assoc. Prof. Suthinee Rutnin

Ramathibodi Hospital, Mahidol University

Lt.Col. Chutika Srisuttiyakorn

Pramongkutklao Hospital

Dr. Pinnaree Kattipathanapong

Institute of Dermatology

Assoc. Prof. Jade Wititsuwannakul

Chulalongkorn University

Asst. Prof. Panlop Chakkavittumrong

Thammasat Hospital

Dr. Chavalit Supsisunjai, PhD.

Institute of Dermatology

Assoc. Prof. Mati Chuamanochan

Chiang Mai University

Lecturer Narachai Julanon

Khon Kaen University

Lecturer Siripan Sangmala

Prince of Songkla University

Lecturer Pattriya Jirawattanadon

Siriraj Hospital, Mahidol University

Technical Editor

Assoc. Prof. Premjit Juntongjin

Chulabhorn International College of Medicine

**Scientific Integrity
Editor**

Assoc. Prof. Kunlawat Thadanipon

Ramathibodi Hospital, Mahidol University

Social Media Editor

Lecturer Natthachat Jurairattanaporn

Ramathibodi Hospital, Mahidol University

Managing Editor

Miss Neeyawan Ketpreechasawad

Past-Editors

Dr.Thada Plamphongsant

1985

Dr.Kanok Bunyaratavej

1986-1988

Prof.Somyot Charuwichitratana

1988-1992

Dr.Harn Wongwaisayawan

1992-1994

Prof.Somyot Charuwichitratana

1994-1996

Assoc.Prof.Puan Suthipintharm

1996-1999

Assoc.Prof.Pornpip Puvabanditsin

1999-2006

Assoc.Prof.Natta Rajatanavin

2006-2020

Prof.Waranya Boonchai

2020-2024

Assoc. Prof. Dr. Charussri Leeyaphan

2024-2026

Focus and Scope

Thai Journal of Dermatology is the official peer-reviewed publication of the Dermatological Society of Thailand. The journal aims to provide a forum for the exchange of information about new and significant research in dermatology in Thailand and throughout the world. We welcome submissions from authors' worldwide publishing articles that focus on dermatology and support the professional and educational needs of its readers. Thai Journal of Dermatology welcomes manuscripts that focus on clinical and basic science related to dermatology, health care policy and economics, medical education and ethics, and related topics. All research involving human research subjects, the authors please submit a photocopy of a document of approval from Institutional Review Board (IRB) or Institutional Ethic Committee (IEC).

Type of Articles

Thai Journal of Dermatology prefers online submissions for Editorials, Original Articles, Review Articles and Case Reports

Peer Review Process

All new submissions are screened for completeness and adherence to the Guide for Authors. Those that pass are then assigned for peer review. The editorial office will seek at least three double-blinded peer reviewers are matched to the paper according to their expertise. Result of manuscripts initial evaluation stage will be informed as soon as possible. Manuscripts rejected at this stage are insufficiently original, be plagiarized, have serious conceptual and/or methodological errors or are outside the aims and scope of the journal. The Editor in Chief will make the decision regarding acceptance of any manuscripts for publication.

Publication Frequency

Thai Journal of Dermatology is scheduled to be published every three months
(4 issues/year: January - March, April - June, July - September, October - December).

It is our policy that there is **NO** publication charge.

รายนามคณะกรรมการ
สมาคมแพทย์ผิวหนังแห่งประเทศไทย
มีนาคม 2569 - เมษายน 2571

ที่ปรึกษา

ศ.ดร.นพ.ประวิตร อัศวานนท์

ที่ปรึกษา

ศ.นพ.วรพงษ์ มั่นสเกียรติ

นายกสมาคม

นพ.จินดา โรจนเมธินทร์

อุปนายก และประธานฝ่ายฝึกอบรมและสอบ เพื่อวุฒิบัตรสาขาทจวิทยา

ผศ.นพ.สมศักดิ์ ตันรัตนาก

อุปนายกฝ่ายวิเทศสัมพันธ์

นพ.รัฐกรณ์ อึ้งภากรณ์

เลขาธิการ

ศ.ดร.พญ.รังสิมา วณิชภักดีเดชา

ประธานวิชาการ

รศ.ดร.นพ.รัฐพล ดวงทอง

เหรียญกษาปณ์

ดร.พญ.ชินมนัส เลขาวัตร

สาราณียกร

รศ.นพ.พุลเกียรติ สุขนวนิช

ปฏิคม

รศ.ดร.พญ.รัชต์ธร ปัญญาประทีป

ประชาสัมพันธ์

พญ.ประณีต สัจเจริญพงษ์

สารสนเทศ

ผศ.นพ.พัลลภ จักรวิทย์อารัง

ประธานฝ่ายกิจกรรมสังคม

นพ.ชนันท์ กำธรรัตน์

ประธานฝ่ายแพทย์และจริยธรรม และคุ้มครองข้อมูลส่วนบุคคล

รศ.พญ.วรัพร ดิสนานุรัตน์

กรรมการกลาง และประธานฝ่ายคัดเลือกแพทย์ผิวหนังดีเด่น

พญ.พุกกลิ่น ตรีสุโกศล

กรรมการกลาง และประธานฝ่ายประสานงานยาเวชภัณฑ์ และเครื่องมือแพทย์

พญ.ไพลิน พวงเพชร

กรรมการกลาง และประธานฝ่ายงานวิจัยและประธานฝ่ายพิจารณาทุน

รศ.พญ.ภาวณิ ฤกษ์นิมิตร

กรรมการกลาง และผู้ช่วยสาราณียกร

รศ.ดร.พญ.จรัสศรี พียาพรรณ

กรรมการกลาง และประธานฝ่ายการจัดทำแนวทางเวชปฏิบัติ

รศ.พญ.กมุนาถ จันทรประภาพ

กรรมการกลาง และประธานฝ่ายอบรมระยะสั้น

รศ.พญ.ศศิมา เอี่ยมพันธุ์

กรรมการกลาง และผู้ช่วยประชาสัมพันธ์

ผศ.พญ.แพรมมาลา ฉายาวิจิตศิลป์

กรรมการกลาง และผู้ช่วยฝ่ายแพทย์และจริยธรรม และคุ้มครองข้อมูลส่วนบุคคล

ผศ.พญ.ธัญญา เตชะพิเชฐวานิช

สำนักงานสมาคม

อาคารเฉลิมพระบารมี ๕๐ ปี ชั้น 9

เลขที่ 2 ซ.ศูนย์วิจัย ถ.เพชรบุรีตัดใหม่

แขวงบางกะปิ เขตห้วยขวาง กรุงเทพฯ 10310

โทร. 02-716-6857, 02-716-5256 หรือ 02-716-6661-3 ต่อ 9012

วารสารนี้ได้รับเงินอุดหนุนค่าพิมพ์จากสมาคมแพทย์ผิวหนังแห่งประเทศไทย เนื้อหาบทความหรือข้อคิดเห็นใดๆ ในวารสารถือเป็นความคิดเห็นของผู้เขียนโดยเฉพาะ
เท่านั้น สมาคมแพทย์ผิวหนังแห่งประเทศไทยหรือ กองบรรณาธิการไม่จำเป็นต้องเห็นพ้องด้วยเสมอไป

The Council of Dermatological Society of Thailand

March 2026 – April 2028

Adviser to the Committee	Dr. Pravit	Asawanonda
Adviser to the Committee	Dr. Woraphong	Manuskiatti
President	Dr. Jinda	Rojanamatin
Vice President	Dr. Somsak	Tanrattanakorn
Vice President for International Affairs and Professional Liaison	Dr. Rataporn	Ungpakorn
Secretary General	Dr. Rungsima	Wanitphakdeedecha
Scientific Affairs	Dr. Rattapon	Thuangtong
Treasurer and Assistant to Secretary General	Dr. Chinmanat	Lekhavat
Editor of TJD and Publications	Dr. Poonkiat	Suchonwanit
Chief Facilities Officer (CFO)	Dr. Ratchathorn	Panchaprateep
Public Relations	Dr. Praneet	Sajjacharoenpong
Chief Technology Officer (CTO)	Dr. Panlop	Chakkavittumrong
Chair and Societal Social Responsibility	Dr. Chanat	Kumtornrut
Chair Medical Ethics and Personal Data Protection	Dr. Wareeporn	Disphanurat
Executive Committee Member and Chair, Outstanding Dermatologist Selection Committee	Dr. Poohglin	Tresukosol
Executive Committee Member and Chair, Pharmaceutical Products and Medical Devices Liaison Committee	Dr. Pailin	Puangpet
Chair and Research Committee and Scholarship Advisory Committee	Dr. Pawinee	Rerknimitr
Executive Committee Member and Assistant Editor	Dr. Charussri	Leeyaphan
Chair and Practice Guidelines Committee	Dr. Kumutnart	Chanprapaph
Chair and Short Course Director	Dr. Sasima	Eimpunth
Executive Committee Member and Assistant for Public Relations	Dr. Pamela	Chayavichitsilp
Executive Committee Member and Assistant, Medical Ethics and Personal Data Protection	Dr. Thanya	Techapichetvanich

Office

Dermatological Society of Thailand
 9th Floor, Royal Golden Jubilee Building. 2, Soi Soonvijai,
 New Petchburi Rd, Bangkapi Huaykwang, Bangkok, 10310
 Tel. 02-716-6857, 02-716-5256, 02-716-6661-3 Ext. 9012

คำแนะนำสำหรับผู้นิพนธ์

วารสารโรคผิวหนังมีนโยบายเผยแพร่วิชาการทางโรคผิวหนังและเรื่องที่เกี่ยวข้อง โดยสนับสนุนบทความภาษาอังกฤษ

ประเภทของบทความ

บทความที่ส่งมาตีพิมพ์อาจเป็น นิพนธ์ต้นฉบับ (original article) รายงานผู้ป่วย (case report) บทความฟื้นฟูวิชาการ (review article) บทความจากการประชุม ปกิณกะ บทบรรณาธิการ จดหมายถึงบรรณาธิการและบทความประเภทอื่นที่เหมาะสม บทความที่ส่งมาให้พิจารณาเพื่อตีพิมพ์ใน “วารสารโรคผิวหนัง” ต้องไม่เคยตีพิมพ์หรืออยู่ในระหว่างการพิจารณาเพื่อตีพิมพ์ในวารสารอื่น

การเตรียมต้นฉบับ

การพิมพ์ต้นฉบับ ให้พิมพ์ลงในไฟล์ Word (2007 ขึ้นไป) ด้วยตัวอักษร Times New Roman 11 เว้นบรรทัด (Single) โดยพิมพ์ตามหัวข้อต่อไปนี้ ขึ้นหน้าใหม่สำหรับแต่ละหัวข้อ และพิมพ์เลขหน้าไว้มุมบนขวา สามารถส่งทาง Online ที่ Website www.dst.or.th, <https://www.tci-thaijo.org/index.php/TJD/about/submissions>

1. Title pages ประกอบด้วย

- 1.1 ชื่อเรื่อง
- 1.2 ชื่อผู้นิพนธ์ทุกท่าน ทั้งชื่อตัวและชื่อสกุล พร้อมทั้งคุณวุฒิ (สูงสุด)
- 1.3 สถานที่ทำงาน
- 1.4 ชื่อ ที่อยู่ และ email ของผู้นิพนธ์ที่รับผิดชอบ (Correspondence) ในการเตรียมต้นฉบับ ระบุชื่อเรื่องอย่างสั้น (short running title) ไม่เกิน 40 ตัวอักษร พิมพ์ไว้บรรทัดล่างสุดของ title page

2. เรียงย่อ (Abstract) และ คำสำคัญ (Key words)

- 2.1 เรียงย่อ (Abstract) ไม่เกิน 250 คำ
- 2.2 ระบุ key words หรือ short phrases 2-5 คำ
- 2.3 ในกรณีนิพนธ์ต้นฉบับสามารถทำเป็น visual abstract หรือ graphical abstract เพื่อให้ผู้อ่านเข้าใจเนื้อหาอย่างรวดเร็ว มีความสวยงาม สะดุดตาชวนอ่าน สามารถหาข้อมูลเพิ่มเติม วิธีทำได้ที่ <https://jamanetwork.com/pages/visual-abstracts>

3. ชนิดของบทความ

ชนิดของบทความ	เรื่องย่อ (Abstract)	เนื้อหา	เอกสารอ้างอิง	Keyword	รูปและแผนภาพ
<p>นิพนธ์ต้นฉบับ (Original article) ภาษาอังกฤษ</p>	<p>ควรประกอบด้วย</p> <ul style="list-style-type: none"> -Background -Materials and methods -Results -Conclusion <p>(Maximum word count 250) หรือ visual abstract</p>	<p>ควรประกอบด้วย</p> <p>Introduction</p> <p>Materials and methods</p> <p>Results</p> <p>Discussion</p> <p>(Word count 2,000-3,000)</p>	ไม่เกิน 30	2-5 คำ	<p>-รูปส่งเป็นไฟล์ JPG ขนาดอย่างน้อย 300 dpi</p> <p>-แผนภาพส่งเป็นไฟล์ EPS รูปและแผน ภาพรวม ไม่เกิน 8 รูป</p>
<p>บทความฟื้นฟูวิชา (Review article) ภาษาอังกฤษ</p>	<p>ควรเป็นบทยอที่พูดถึงภาพรวมของ บทความ โดยไม่ต้องแบ่งหัวข้อชัดเจน เหมือน original article (ไม่เกิน 250 คำ)</p>	เนื้อหา 2,000-3,000 คำ	ไม่เกิน 30	2-5 คำ	ไม่เกิน 8 รูป
<p>รายงานผู้ป่วย (ภาษาอังกฤษ)</p>	<p>ควรเป็นบทยอที่พูดถึงภาพรวมของ บทความ โดยไม่ต้องแบ่งหัวข้อชัดเจน เหมือน original article (ไม่เกิน 250 คำ)</p>	<p>ควรเป็นรายงานที่มีความแปลกใหม่<u>ไม่เหมือน</u> <u>ในตำรา</u> ไม่ว่าจะเป็นในแง่อาการ อาการแสดง ลักษณะทางพยาธิวิทยา และการตอบสนอง ต่อการรักษาใหม่ เนื้อหาประกอบด้วย clinical history and physical examination, pathology, diagnosis, discussion, learning points. (700-1,000คำ)</p>	ไม่เกิน 10	2-5 คำ	ไม่เกิน 5 รูป
<p>Clinicopathological cases-วัตถุประสงค์ เพื่อให้ผู้อ่านสามารถ วินิจฉัยผู้ป่วยที่พบได้ ไม่บ่อย (ภาษาอังกฤษ)</p>	ไม่ต้องมี	<p>ควรเป็นตัวอย่างผู้ป่วยที่พบได้ไม่บ่อย และมี ลักษณะที่ตรงกับตำรา เนื้อหา ประกอบด้วย clinical history and physical examination, pathology, diagnosis, brief review เกี่ยวกับโรคอื่นๆ (500-800 คำ)</p>	ไม่เกิน 10	2-5 คำ	ไม่เกิน 5 รูป

การเตรียมไฟล์ต้นฉบับ

1. ไฟล์แรก Title pages ประกอบด้วย

1.1 ชื่อเรื่อง

1.2 ชื่อผู้พิมพ์ทุกท่าน ทั้งชื่อตัวและชื่อสกุล พร้อมทั้งคุณวุฒิ (สูงสุด)

1.3 สถานที่ทำงาน

1.4 ชื่อ ที่อยู่ และ email ของผู้พิมพ์ที่รับผิดชอบ (Correspondence) ในการเตรียมต้นฉบับ ระบุชื่อเรื่องอย่างสั้น (short running title) ไม่เกิน 40 ตัวอักษร พิมพ์ไว้บรรทัดล่างสุดของ title page

2. ไฟล์ที่สอง เรื่องย่อ (Abstract) และ คำสำคัญ (Key words) ตามที่ระบุไว้ในตารางข้อ 3

3. ไฟล์ที่สาม บทความ (Body text) รวมทั้งเอกสารอ้างอิง และตาราง ตามที่ระบุในตารางข้อ 3

4. ไฟล์ที่สี่ รูปและ Diagram จำนวนแล้วแต่ประเภทของบทความ ตามที่ระบุในตารางข้อ 3

4. กิตติคุณประกาศ (Acknowledgements)

5. เอกสารอ้างอิง (References) การอ้างอิงเอกสารไม่ควรเกินตามที่กำหนดไว้ในตารางข้อ 3.

และใช้ระบบ Vancouver ใส่หมายเลขเรียง

ลำดับที่อ้างอิงในเนื้อเรื่อง ไม่ใช่เรียงตามตัวอักษรของผู้พิมพ์

การย่อชื่อวารสาร ให้ใช้ตาม Index Medicus

ตัวอย่างการเขียนเอกสารอ้างอิง

บทความที่ตีพิมพ์ในวารสาร

5.1 บทความธรรมชาติใส่ชื่อผู้พิมพ์ทุกคนถ้ามีจำนวน 6 คน หรือน้อยกว่า (ถ้ามากกว่า 6 คน ให้ใส่ชื่อ 3 คนแรกตามด้วย et al.) โดยใส่ชื่อสกุลก่อนและใช้เครื่องหมายวรรคตอน ดังตัวอย่าง

Rajatanavin N, Suwanachote S, Kulkollakarn S. Dihydroxyacetone: a safe camouflaging option in vitiligo. Int J Dermatol. 2008; 47: 402-6.

Suthipinittharm P, Noppakun N, Kulthanan K, et al. Opinions and perceptions on acne: a community-based questionnaire study in Thai students. J Med Assoc Thai. 2013; 96: 952-9.

ถ้าเอกสารเป็นภาษาไทย ให้เขียนชื่อก่อนนามสกุลดังนี้

สมพันธ์ บุญยคุปต์. ไวรัสตับอักเสบบี : 3 ระบาดวิทยาและการเกิด

พยาธิสภาพ. แพทยสภาสาร 2518; 4: 165-71.

5.2 ผู้พิมพ์เป็นกลุ่มในหน่วยงาน

The Committee on Enzymes of the Scandinavian Society for Clinical Chemistry and Clinical Physiology. Recommended method for the determination of gamma-glutamyltransferase in blood. Scan J Clin Lab Invest 1976; 36: 119-25.

หนังสือ

5.3 ผู้พิมพ์คนเดียว

Osler AG. Complement: mechanisms and functions. Englewood Cliffs: Prentice-Hall, 1976.

5.4 ผู้พิมพ์เป็นกลุ่มในหน่วยงาน

American Medical Association Department of Drugs. AMA drug evaluations. 3rd ed. Littleton: Publishing Sciences Group, 1977.

5.5 ผู้นิพนธ์หลายคน แต่มีบรรณาธิการหรือหัวหน้าในการเขียนนั้น

Rhodes AJ, Van Rooyen CE, comps. Textbook of virology: for students and practitioners of medicine and the other health sciences. 5th ed. Baltimore: Williams and Wilkins, 1967.

5.6 อ้างเฉพาะบทใดบทหนึ่ง

Weinstein L. Swartz MN. Pathogenic properties of invading microorganisms. In: Sodeman WA Jr, Sodeman WA, eds. Pathologic physiology: mechanisms of disease. Philadelphia: WB Saunders. 1974: 457-72.

5.7 รายงานของหน่วยงาน

National Center for Health Statistics. Acute conditions: incidence and associated disability, United States July 1968-June 1969. Rockville, Md: National Center for Health Statistics, 1972. (Vital and health statistics. Series 10: Data from the National Health Survey, No 69) [DHEW publication No (HSM) 72-1036].

เอกสารอื่น ๆ

5.8 บทความจากหนังสือพิมพ์รายวัน

Shaffer RA. Advances in chemistry are starting to unlock mysteries of the brain: discoveries could help cure alcoholism and insomnia, explain mental illness. How the messengers work. Wall Street Journal. 1977 Aug 12: 1 (col 1), 10 (col 1).

5.9 บทความจากวารสารรายปักษ์ หรือวารสารรายเดือน

Rouche B. Annals of medicine: The Santa Claus culture. The New Yorker 1971 Sept. 4: 66-81.

5.10 บทความจากเอกสารอิเล็กทรอนิกส์

จิราภรณ์ จันทร์จร. การเขียนรายการอ้างอิงในเอกสารวิชาการทางการแพทย์ [อินเทอร์เน็ต]. กรุงเทพมหานคร: คณะแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย; 2551 [เข้าถึงเมื่อ 18 ต.ค. 2554]. เข้าถึงได้จาก <http://liblog.dpu.ac.th/analyresource/wp-content/uploads/2010/06/reference08.pdf>

Foley KM, Gelband H, editors. Improving palliative care for cancer [Internet]. Washington: National Academy Press; 2001 [cited 2002 Jul 9]. Available from: <http://www.nap.edu/books/0309074029/html/>.

6. ตาราง (table) พิมพ์เป็นแผ่นแยกต่างหาก แผ่นละตารางเรียงลำดับก่อนหลังตามที่ต้องการ

ในเนื้อเรื่อง คำอธิบายเพิ่มเติมใส่ข้างใต้ตาราง โดยใช้เครื่องหมายสำหรับเชิงอรรถเรียง

ลำดับดังนี้ *,†,‡,§,||,¶, **,††,‡‡,§§,||||,¶¶

7. รูป และ คำบรรยายภาพ เรียงลำดับภาพตามที่ต้องการในเนื้อเรื่องภาพประกอบ ภาพถ่ายใช้ file JPG 300 dpi, กราฟหรือภาพวาดใช้ file EPS 600 dpi

หากภาพถ่ายเห็นใบหน้าผู้ป่วยให้ส่งเอกสารให้คำยินยอมจากผู้ป่วยในการตีพิมพ์ลงวารสารทางการแพทย์ด้วย

การส่งบทความ ส่งไฟล์บทความที่ <https://www.tci-thaijo.org/index.php/TJD/about/submissions>
พร้อม email แจ้งบรรณาธิการ

สมาชิกสมาคมแพทย์ผิวหนังฯ

ย้ายที่อยู่ กรุณาแจ้ง

ผศ.นพ. สมศักดิ์ ตันรัตนกร

สมาคมแพทย์ผิวหนังแห่งประเทศไทย

อาคารเฉลิมพระบารมี ๕๐ ปี ชั้น 9

เลขที่ 2 ซ.ศูนย์วิจัย ถ.เพชรบุรีตัดใหม่

แขวงบางกะปิ เขตห้วยขวาง กรุงเทพฯ 10310

โทร. 02-716-6857, 02-716-5256 E-mail: dermthai@gmail.com

Contents

Original articles

- Treatment Goals, Expectations, and Satisfaction Among Psoriasis Patients
in Thailand: A Cross-Sectional Study 95-102
Nuttagarn Jantanapornchai
Chayada Chaiyabutr
Leena Chularojanamontri
Chanisada Wongpraparut
Narumol Silpa-archa

Case Report

- Inflammatory Linear Verrucous Epidermal Nevus Complicated by Jacquet Erosive Dermatitis:
A Rare Overlap in Dermatology 103-108
Kultong Owatsatit
Phatcharawat Chirasuthat
- Use of Tildrakizumab in Two Obese Patients with Severe Psoriasis: First Experience in Thailand 109-113
Chanisada Wongpraparut
Pravit Asawanonda
- Anti-TIF1 γ Antibody-Positive Dermatomyositis: A Case Report and Literature Review 114-125
Emphasizing on Malignancy Screening Interval
Sonphet Chirasutha
Pintip Ngamjanyaporn
Kumutnart Chanprapaph
- Eccrine syringofibroadenoma of the Sole: A case report 126-130
Warissanan Tangtiwiwat
Niorn Boonpuen

Treatment Goals, Expectations, and Satisfaction Among Psoriasis Patients in Thailand: A Cross-Sectional Study

Nuttagarn Jantanapornchai MD, Chayada Chaiyabutr MD,
Leena Chularojanamontri MD, Chanisada Wongpraparut MD,
Narumol Silpa-archa MD

Department of Dermatology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand.

ABSTRACT:

Background: Psoriasis is a chronic inflammatory skin disorder that has substantial psychological consequences. Understanding treatment goals and expectations from the patient's perspective is critical to enhancing patient outcomes. However, evidence on Thai patients with psoriasis is limited.

Objectives: To investigate the treatment goals, satisfaction levels, and expectations of Thai psoriasis patients to provide insights for personalized care.

Methods: A questionnaire survey was conducted among 116 psoriasis patients attending the outpatient psoriasis clinic at Siriraj Hospital from December 2023 to December 2024. Data on treatment goals, satisfaction, and expectations were collected.

Results: The most common reported treatment goal was achieving clearer skin (49.1%), followed by eliminating itching or pain (21.6%), reducing scaling (15.5%), and boosting confidence (12.9%). Overall, 73.3% of patients were very satisfied with their treatment, with significantly associated with disease severity ($p=0.029$). Patients with mild psoriasis reported higher satisfaction (83.1%) than severe psoriasis (57.6%). Before treatment, 31.9% of patients expected complete psoriasis clearance, but during therapy, only 9.5% considered complete clearance essential, indicating a drop in expectations. The top three regions where patients desired to see improvement were the extremities, head, and trunk.

Conclusion: Thai psoriasis patients prioritize clearer skin, itch alleviation, and increased confidence as primary treatment goals. While many initially expected complete clearances, their expectations shifted over time as they realized that entire lesion clearance was not always possible. Disease severity has a considerable influence on satisfaction, highlighting the importance for effective treatment.

Key words: Psoriasis, Treatment goal, Expectation, Perspective, Satisfaction

Introduction

Psoriasis is a chronic inflammatory skin condition linked to various comorbidities, including psoriatic arthritis, inflammatory bowel disease, obesity, diabetes mellitus, and cardiovascular diseases^{1,2}. It affects approximately 3% of the adult population in the United States³ and requires ongoing, lifelong

treatment, leading to significant morbidity and reduced quality of life (QoL)⁴. A survey conducted in Thailand on the QoL of psoriasis patients revealed that around 60% of participants experienced social stigmatization and rejection, underscoring the profound psychosocial impact of the condition⁵.

In recent years, treatment strategies for psoriasis have advanced significantly, transitioning from traditional topical therapies, systemic medications, and phototherapy to more innovative options such as biologic therapies and oral small-molecule drugs^{6,7}. As patients' demand for treatment outcomes has increased, the demand for biologic treatments has also risen⁸. Dermatologists typically focus on outcome measures such as Body Surface Area (BSA), Psoriasis Area Severity Index (PASI), and Dermatology Life Quality Index (DLQI) to evaluate treatment success, assuming that these metrics hold equal importance to all patients⁹. However, research has shown that the treatment goals of patients and physicians often differ, emphasizing the importance of incorporating patient perspectives to develop a more personalized approach in psoriasis management¹⁰. Currently, there is little information on the specific treatment goals of Thai psoriasis patients. This study examines their expectations and priorities for the treatment goals.

Materials and methods

Study Design and Subjects

Psoriasis patients who visited the Psoriasis Clinic at Siriraj Hospital, Mahidol University, Bangkok, Thailand, from December 2023 to December 2024 were invited to complete a questionnaire survey. Patients with psoriasis (age ≥ 18) were considered eligible. Following written informed consent, patients filled out a self-administered paper-based questionnaire during their clinic visit. Researchers were present to clarify questions and review completed surveys for missing responses.

This study-specific survey was developed by the authors (C.C., C.W., L.C., N.S.) based on clinical experience and a comprehensive literature review on treatment goals for

psoriasis patients^{11,12}. The survey included questions focusing on sociodemographic information, psoriasis characteristics, current treatment, treatment goals, treatment satisfaction, and an assessment of psoriasis treatment goals using a 10-point scale across 11 questions. The Siriraj Research Ethics Committee approved the project. (SI/COI NO. 658/2023).

Statistical Analysis

Descriptive statistics were used to summarize responses for each question. Categorical variables are presented as frequency counts and percentages, while continuous variables are presented as mean values with standard deviation (SD). Statistical significance was set at $P < 0.05$. Associations between categorical variables were analyzed using Pearson's Chi-square test, while ordinal variables were evaluated using linear-by-linear association. Crosstab analysis was conducted to examine the relationship between body surface area (BSA) severity and patient expectations for improvement, providing insights into potential correlations. All statistical analyses were performed using IBM SPSS Statistics for Windows, Version 29 (IBM Corp., Armonk, NY).

Results

Study population

This report included 116 patients, and their characteristics are presented in Table 1. The mean age of participants was 50.3 years, and 53.4% were male. The mean age at psoriasis onset was 32.5 years. Regarding healthcare benefits, 83.6% of patients were covered by non-self-funded programs, while 16.4% paid for their costs. University-level education was reported in 43% of cases, and the majority (45.7%) were single.

Table 1 Demographic and clinical characteristics of study participants

Demographics	N=116	(%)
Age, y (mean±SD)	50.03±16.1	
Age at first symptom, y (mean±SD)	32.5±16.4	
Disease duration, y (mean±SD)	17.6±13.6	
Male	62	(53.4)
Marital status		
Single	53	(45.7)
Married	49	(42.2)
Health benefit		
Government or state enterprise officer	43	(37.1)
Universal coverage scheme	39	(33.6)
Pay on their own	19	(16.4)
Social health insurance	15	(12.9)
Education level		
High school or less	46	(39.7)
Vocational education	20	(17.2)
University education	50	(43.1)
Type of psoriasis		
Vulgaris	108	(93.1)
Erythroderma	4	(3.4)
Guttate	2	(1.7)
Generalized pustular	2	(1.7)
Extent of psoriatic lesion, body surface area (BSA)		
Mild (BSA<5%)	59	(50.9)
Moderate (BSA≥5-10%)	24	(20.7)
Severe (BSA>10%)	33	(28.4)
Comorbidities		
Hypertension	48	(41.4)
Dyslipidemia	32	(27.6)
Psoriasis arthritis	22	(19.0)
Diabetes mellitus	20	(17.2)
Special location		
Scalp	98	(84.5)
Nail	83	(71.6)
Palm and sole	67	(57.8)
Face	53	(45.7)
Intertriginous	34	(29.3)
Genitalia	16	(13.8)
Current treatment		
Oral systemic drugs	84	(72.9)
Biologics	16	(13.8)
Topical therapy alone	15	(12.9)
Phototherapy	1	(0.9)

Disease characteristics of study participants

Detailed clinical characteristics of patients are summarized in Table 1. The most common

type of psoriasis was psoriasis vulgaris (93.1%), followed by erythrodermic psoriasis (3.4%), guttate psoriasis (1.7%), and generalized

pustular psoriasis (1.7%). Most patients (50.9%) had mild psoriasis [body surface area (BSA) involvement $0 < 5\%$], while 20.7% had moderate severity ($BSA \geq 5-10\%$), and 28.4% had severe disease ($BSA > 10\%$).

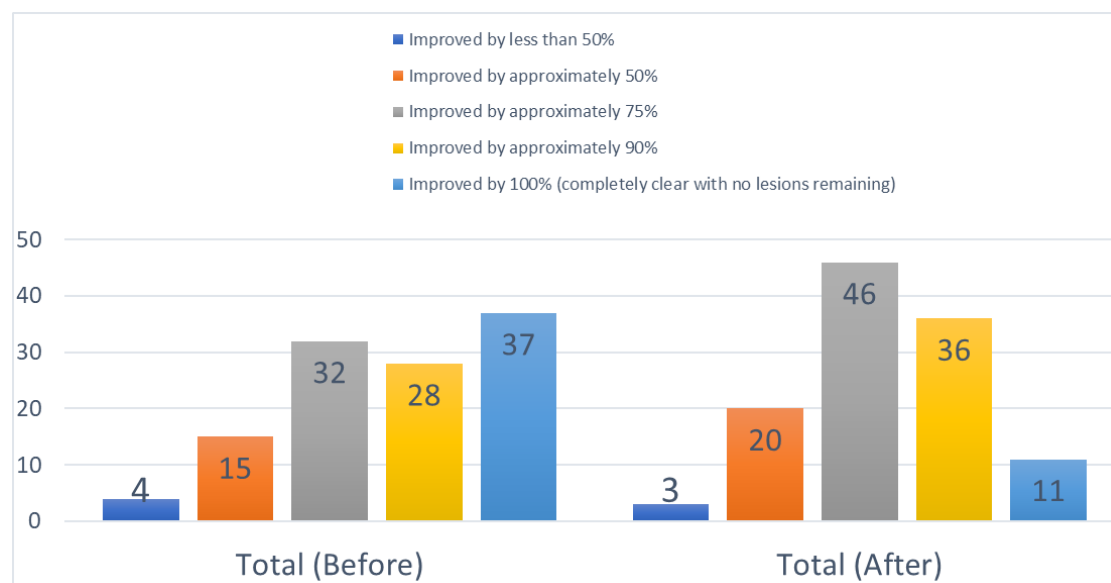
Comorbidities in our cohort included hypertension (48%), dyslipidemia (32%), psoriatic arthritis (22%), and diabetes mellitus

(20%). Special site involvement included the scalp (84.5%), nails (71.6%), palms and soles (57.8%), face (45.7%), intertriginous areas (29.3%), and genitalia (13.8%). Most of our patients received oral medications (72.9%), followed by biologic therapies (13.8%) and phototherapy (0.9%). Topical therapy alone was used by 12.9% of patients.

Table 2 Treatment goals of psoriasis patients before initiating therapy

Expected treatment goal	Mild psoriasis N=59	Moderate psoriasis N=24	Severe Psoriasis N=33	Total N=116
To achieve clearer skin	27 (45.8%)	15 (62.5%)	15 (45.5%)	57 (49.1%)
To eliminate itching or pain	15 (25.4%)	3 (12.5%)	7 (21.2%)	25 (21.6%)
To reduce scaling or flaking	6 (10.2%)	5 (33.3%)	7 (21.2%)	18 (15.5%)
To boost confidence	10 (16.9%)	1 (4.2%)	4 (12.1%)	15 (12.9%)
Have no specific goal	1 (1.7%)	0 (0%)	0 (0%)	1 (0.9%)

Pearson Chi-square $P=0.495$



*Before treatment between groups: Linear-by-linear association ($P=0.182$)

#After treatment between groups: Linear-by-linear association ($P=0.007$)

Figure 1 Patients' expectation before treatment* and patients' acceptability after treatment# initiation

Treatment goals in psoriasis patients

The treatment goals of 116 psoriasis patients before initiating therapy are outlined in Table 2. The most common goal was achieving clearer skin (49.1%), followed by eliminating itching or pain (21.6%), reducing scaling or flaking

(15.5%), and boosting confidence (12.9%). Only 0.9% of patients reported no specific treatment goals. While treatment goals varied slightly by disease severity, no statistically significant association was observed between severity and treatment goals ($p=0.495$).

Table 3 Satisfaction of psoriasis patients with ongoing treatment

Current Patient Satisfaction	Mild psoriasis N=59	Moderate psoriasis N=24	Severe psoriasis N=33	Total N=116
Very satisfied	49 (83.1%)	17 (70.8%)	19 (57.6%)	85 (73.3%)
Moderate satisfied	10 (16.9%)	7 (29.2%)	14 (42.4%)	31 (26.7%)
Not satisfied	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Pearson Chi-Square P=0.029

Table 3 highlights patient satisfaction with current psoriasis treatment. Overall, 73.3% of patients were very satisfied, while 26.7% were moderately satisfied. No patients reported dissatisfaction. Satisfaction levels varied by disease severity, with 83.1% of patients with mild psoriasis reporting being very satisfied compared to 70.8% and 57.6% of those with moderate and severe psoriasis, respectively. Moderate satisfaction was more common among patients with severe cases (42.4%) than in those with moderate (29.2%) or mild psoriasis (16.9%). The Pearson Chi-square test yielded a p-value of 0.029, indicating a significant association between patient satisfaction and disease severity. Patients with milder psoriasis were significantly more likely to report higher satisfaction compared to those with more severe disease.

Patients' expectations before treatment and patients' acceptability during treatment are summarized in Figure 1. Before treatment, 37 (31.9%) patients expected complete clearance (100%), while during treatment, only 11 (9.5%) considered complete clearance essential, indicating a decrease in expectations. Conversely, satisfaction with a 75% improvement increased from 32 (27.6%, expected) to 46 (39.7%, actual), particularly in moderate and severe cases. Expectations for a 90% improvement remained relatively stable in 28 (24.1%) expected vs. 36 (31%) actual. A significant association between disease severity and expectation was found throughout therapy ($p=0.007$) but not before the treatment ($p=0.182$).

The study compared patients' expectations before therapy to their acceptability during

treatment for psoriatic lesions. Forty-three percent of patients felt that their actual acceptance was lower than their initial expectations, while 18% reported their improvement exceeded their expectations. Furthermore, 38% of patients stated that their actual acceptability met their expectations. The top three areas where patients most desired improvement were the extremities, followed by the scalp and trunk.

An 11-question survey graded treatment priorities among psoriasis patients on a scale of 0 to 10. According to the average scores, the highest priority for patients is treatment that allows them to maintain normal daily life activity (score 8.2), followed by insurance or healthcare benefits coverage (score 8.0) and increased self-confidence and willingness to socialize (score 7.8). The lowest priority was achieving rapid responses, with an average score of 6.8.

Discussion

To the best of our knowledge, few studies have explored treatment goals among patients with psoriasis in Thailand, and this study addresses that gap. Our findings revealed that achieving clearer skin was the most common treatment goal (49.1%), followed by eliminating itching or pain (21.6%). These findings are consistent with prior studies of patients on biologics with mild disease activity, where treatment goals such as "free of itching" and "healed of all skin defects" were regarded as quite or very important by 78.5% of respondents¹³. Similarly, an Italian study of patients' expectations for their current medication found that the majority (54.9%) prioritized symptom relief, particularly itch

reduction, followed by a desire to reduce desquamation (12.0%) and improve self-esteem (11.1%)¹⁴. These findings reflect a consistent global pattern, emphasizing that symptom relief and physical appearance are major concerns for psoriasis patients. Findings from a large survey of 4,978 psoriasis patients further reinforce this, revealing that the top personal treatment goal is symptom reduction, followed by minimizing plaque appearance and reducing flaking, respectively¹⁵.

Overall, our findings demonstrated that the majority of patients were very satisfied with their current therapies. Satisfaction levels were significantly related to disease severity ($p=0.029$), with individuals with mild psoriasis indicating higher satisfaction (83.1%) than those with severe disease (57.6%). This aligns with prior research indicating that a higher disease burden often correlates with lower treatment satisfaction. In a cross-sectional survey of Greek patients with moderate to severe psoriasis, 41.1% expressed little to no satisfaction with their treatment, mostly due to a perceived lack of satisfactory improvement since treatment commencement¹⁶. Beyond treatment effectiveness, the speed of symptom relief plays a crucial role in patients' mental well-being, as a quicker response can significantly improve their outlook and overall quality of life. However, our findings show that patients prioritize long-term disease control over rapid symptom relief. This suggests an awareness of their condition as chronic and a preference for sustained remission to improve quality of life and prevent relapses. While quick relief remains important, patients appear willing to wait for slower improvements if it means better long-term disease stability.

A considerable proportion of patients had high expectations for improvement before starting treatment, with 31.9% expecting complete clearance (100% improvement). Notably, these expectations were similar across all levels of disease severity, as indicated by the

non-significant association ($p=0.182$). This finding highlights that, regardless of disease severity, psoriasis patients often aspire to achieve the best possible outcomes, underscoring the need for clinicians to set realistic expectations during consultations.

This study has several limitations. Access to biologic therapy in Thailand is governed by reimbursement policies that require relatively high disease severity, which may influence patient selection as well as treatment expectations and satisfaction. Consequently, our findings reflect real-world practice within the Thai healthcare system and may not be fully generalizable to settings with different treatment eligibility thresholds. In addition, reliance on self-reported data may introduce recall or social desirability bias. Furthermore, metabolic syndrome and obesity were not systematically assessed, precluding evaluation of their potential influence on treatment goals and outcomes. Future studies should include standardized metabolic assessments, enroll larger and more diverse populations, and explore strategies to better align therapeutic outcomes with patient expectations.

Conclusion

This study highlights the diverse treatment goals, satisfaction levels, and expectations of Thai psoriasis patients, emphasizing the importance of individual care to enhance treatment outcomes and satisfaction. While achieving clearer skin remains the most common goal, factors such as reducing itching, improving self-confidence, and maintaining normal daily life also play a significant role in patient priorities. Treatment expectations are strongly related to disease severity, with individuals with moderate psoriasis having higher patient expectations. These findings underscore the need to align treatment strategies with individual patient goals to enhance satisfaction, adherence, and quality of life. Future research should focus on the long-term

impact of tailored treatment approaches on patient outcomes.

Declaration

Grants and Funding Information None.

Conflict of Interest The authors declare no conflict of interest related to this study.

Author Contributions

Conceptualization: C.C., C.W., L.C., N.S.;
Methodology: C.C., C.W., L.C., N.S.;

Formal analysis and investigation: [N.J., N.S.];

Writing – original draft preparation: [N.J.];
Writing – review and editing: [N.J., C.C., C.W., L.C., N.S.];

Supervision: [N.S.].

All authors have read and agreed to the published version of the manuscript.

Ethics Statements

This study was conducted in accordance with the Declaration of Helsinki and approved by the Ethics Committee/Institutional Review Board of Siriraj hospital (Protocol code: SI/COI NO. 658/2023, Date of approval: 27th Aug 2023). Informed consent was obtained from all subjects involved in the study.

Funding

This research received no funding.

Acknowledgements

We extend our gratitude to Mr. Suthipol Udompuntharak, of the Faculty of Medicine SirirajHospital, Mahidol University, for his help with the statistical analyses. The authors also appreciate the help of Mr. Aditya Rana with English language editing

Conflict of Interest

The authors declare no conflict of interest
None

AI Declaration

During the preparation of this manuscript, the authors used ChatGPT (GPT-4) to assist with language refinement and grammatical corrections. The authors subsequently reviewed and revised the text as appropriate and accept full responsibility for the final content of the published article.

References

1. Svoboda SA, Ghamrawi RI, Owusu DA, Feldman SR. Treatment Goals in Psoriasis: Which Outcomes Matter Most? *Am J Clin Dermatol* 2020;21:505-11.
2. Mateu-Arrom L, Puig L. Choosing the right biologic treatment for moderate-to-severe plaque psoriasis: the impact of comorbidities. *Expert Rev Clin Pharmacol* 2024;17:363-79.
3. Rachakonda TD, Schupp CW, Armstrong AW. Psoriasis prevalence among adults in the United States. *J Am Acad Dermatol* 2014;70:512-6.
4. Armstrong A, Edson-Heredia E, Zhu B, et al. Treatment Goals for Psoriasis as Measured by Patient Benefit Index: Results of a National Psoriasis Foundation Survey. *Adv Ther* 2022;39:2657-67.
5. Thakolwiboon S, Upala S, Geeratrakool T, et al. The factors affecting quality of life in Thai psoriasis patients. *J Med Assoc Thai* 2013;96:1344-9.
6. Ferrara F, Verduci C, Laconi E, et al. Current therapeutic overview and future perspectives regarding the treatment of psoriasis. *Int Immunopharmacol* 2024;143:113388.
7. Ferrara F, Verduci C, Laconi E, et al. Therapeutic Advances in Psoriasis: From Biologics to Emerging Oral Small Molecules. *Antibodies (Basel)* 2024;13:76.
8. Tsai YC, Tsai TF. Switching biologics in psoriasis - practical guidance and evidence to support. *Expert Rev Clin Pharmacol* 2020;13:493-503.
9. Kouwenhoven TA, van der Ploeg JAM, van de Kerkhof PCM. Treatment goals in psoriasis from a patient perspective: a qualitative study. *J Dermatolog Treat* 2020;31:13-7.
10. Lebwohl MG, Bachelez H, Barker J, et al. Patient perspectives in the management of psoriasis: results from the population-based Multinational

- Assessment of Psoriasis and Psoriatic Arthritis Survey. *J Am Acad Dermatol* 2014;70:871-81.
11. Wolf P, Weger W, Legat F, et al. Quality of life and treatment goals in psoriasis from the patient perspective: results of an Austrian cross-sectional survey. *J Dtsch Dermatol Ges* 2018;16:981-90.
 12. Maul JT, Navarini AA, Sommer R, et al. Gender and age significantly determine patient needs and treatment goals in psoriasis - a lesson for practice. *J Eur Acad Dermatol Venereol* 2019;33:700-8.
 13. van Muijen ME, Atalay S, van Vugt LJ, Vandermaesen LMD, van den Reek J, de Jong E. Unmet Personal Patient Needs in Psoriasis Patients with Low Disease Activity on Adalimumab, Etanercept or Ustekinumab. *Drugs Real World Outcomes* 2021;8:163-72.
 14. Gisondi P, Girolomoni G. Patients' perspectives in the management of psoriasis: the Italian results of the Multinational Assessment of Psoriasis and Psoriatic Arthritis (MAPP) survey. *J Dermatolog Treat* 2017;28:390-3.
 15. Armstrong AW, Bohannon B, Mburu S, et al. Patient Perspectives on Psoriatic Disease Burden: Results from the Global Psoriasis and Beyond Survey. *Dermatology* 2023;239:621-34.
 16. Stefanou G, Kourlaba G, Vamvakousis E, Koukoupoulou S, Yfantopoulos J. Patients' satisfaction, unmet needs, and treatment benefits in moderate to severe psoriasis in Greece: results from a cross-sectional survey. *Ital J Dermatol Venerol* 2022;157:424-31.

Inflammatory Linear Verrucous Epidermal Nevus Complicated by Jacquet Erosive Dermatitis: A Rare Overlap in Dermatology

Kultong Owatsatit MD, Phatcharawat Chirasuthat MD.

Institute of Dermatology, Department of Medical Services, Ministry of Public Health, Bangkok, Thailand.

ABSTRACT:

Inflammatory Linear Verrucous Epidermal Nevus (ILVEN) and Jacquet's erosive dermatitis are uncommon dermatological disorders reported in young age groups. Their coexistence of these conditions has not been previously reported. Herein we report a 12-year-old boy concerned about the macerated patches arising on his innate plaque on his right thigh. Skin biopsies were obtained from these 2 different morphologies of lesion which later confirmed the diagnosis of Jacquet erosive dermatitis arising on ILVEN. To the best of our knowledge, this is the first report case of ILVEN occurring concurrently with Jacquet erosive dermatitis on the same lesion in the medical literature. Further research is essential to explore the pathophysiology between these 2 conditions.

Key words: Inflammatory Linear Verrucous Epidermal Nevus (ILVEN), Jacquet Erosive Dermatitis

Introduction

Inflammatory linear verrucous epidermal nevus (ILVEN) is a chronic inflammatory epidermal nevus following Blaschko lines and typically manifests in early childhood. Jacquet's erosive dermatitis (JED) is an uncommon but severe form of irritant dermatitis characterized by erosive verrucous papulonodules in areas subjected to chronic maceration and friction. To date, coexistence of ILVEN with JED on the same anatomical site has not been reported. We present a rare case of ILVEN complicated by JED, confirmed histopathologically, and discuss potential pathogenetic links between these two conditions.

Case presentation

Here, we report a case of a 12-year-old boy presenting with non-itchy erythematous rashes on the right groin and inner right thigh, present since birth. The lesion initially appeared on the right groin and progressively extended downward in a linear pattern to the inner thigh. Previous treatment with a topical antifungal was ineffective. The patient reported no systemic symptoms.

Physical examination revealed linear, well-demarcated erythematous to brownish hyperkeratotic papules and plaques along Blaschko lines on the medial right thigh, interspersed with macerated erythematous verrucous plaques in the right groin area (Figure 1). Two tissue samples were taken from the lesion. The first one was from the macerated area and the other is from the hyperkeratotic lesion.



Figure 1 (a and b) A linear, well-demarcated erythematous to brownish hyperkeratotic papules and plaques along Blaschko lines on the medial right thigh, interspersed with macerated erythematous verrucous plaques in the right groin area

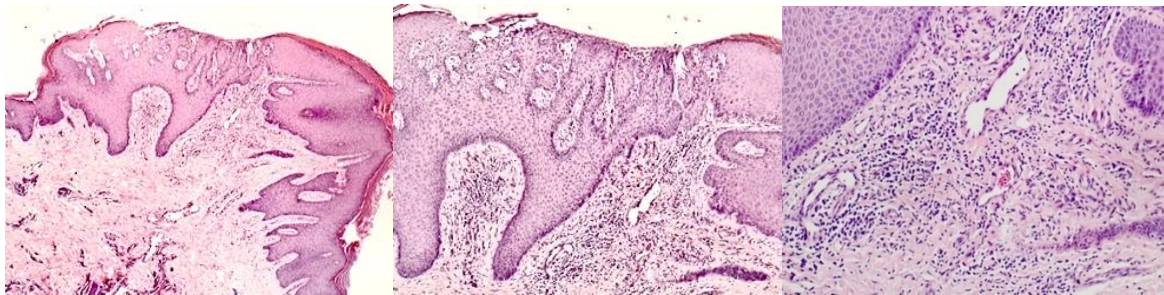


Figure 2 (a, b, and c) Epidermal erosion with parakeratosis and irregular acanthosis. The upper dermis demonstrated a mixed inflammatory cell infiltrate, predominantly lymphocytes

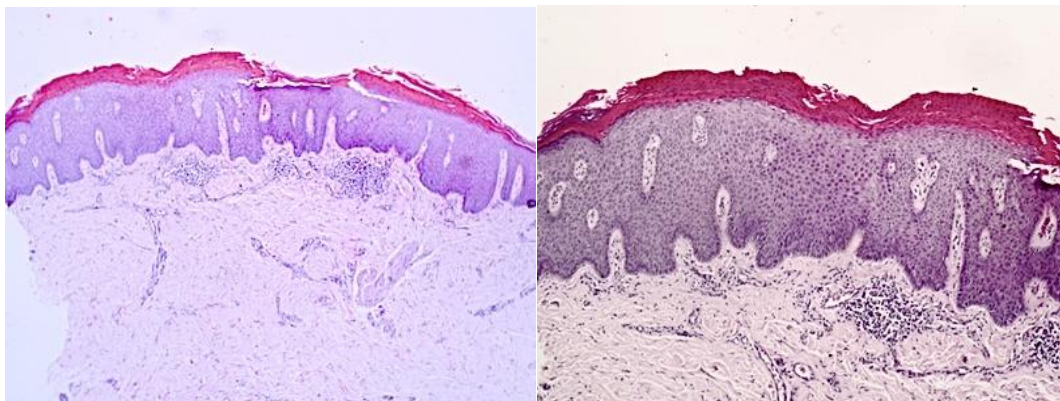


Figure 3 (a and b) Epidermal hyperplasia with hyperkeratosis alternating sharply with regions of orthokeratosis. The dermis showed mild inflammation, and the lesion extended the specimen

Histopathological analysis of the macerated area revealed epidermal erosion with parakeratosis and irregular acanthosis. The upper dermis showed a mixed inflammatory cell infiltrate, predominantly lymphocytes, consistent with Jacquet erosive dermatitis (Figure 2). The second specimen demonstrated epidermal hyperplasia with pronounced hyperkeratosis alternating sharply with regions of orthokeratosis. The dermis displayed mild inflammation, and the lesion extended to the resection margins in the examined sections which is the findings of ILVEN (Figure 3). Histopathological examination of both biopsy sites confirms the diagnosis of Jacquet erosive dermatitis occurring on ILVEN. To our knowledge, this is the first reported case of Jacquet erosive dermatitis (JED) occurring in association with an inflammatory linear verrucous epidermal nevus (ILVEN). This case underscores the possibility that JED may arise as a complication or coexist with preexisting dermatoses, such as ILVEN.

Discussion

Jacquet erosive dermatitis (JED), initially identified by Jacquet in 1905, is an uncommon form of ulcerating severe irritant dermatitis mostly affecting the genital and perianal skin of infants older than six months, though it can also occur in adults. Characteristic of the lesion are well-demarcated papules and nodules with erosion or ulcer. Heal-up borders can also be observed¹. Its development is influenced by multiple factors, with skin irritation playing a pivotal role. Major risk factors include urinary and fecal incontinence, further aggravated by diaper friction and residual detergent exposure. Other forms of irritant dermatitis that can also occur on these areas such as perianal pseudoverrucous papules and nodules and granuloma gluteale infantum/adultorum which have the clinical feature of erythematous perianal plaque comprising multiple small, shiny, flattop, round, smooth moist papules and nodules². Jacquet's erosive dermatitis is

primarily a clinical diagnosis; however, histopathology is often supportive. Although JED is a severe variant of irritant dermatitis, it can be differentiated from simple irritant contact dermatitis by its sharply demarcated papulonodular lesions, deeper erosions, and pseudoverrucous appearance, while classic irritant contact dermatitis more often presents with diffuse erythema, scaling, and shallow erosions without nodularity.

Inflammatory linear verrucous epidermal nevus (ILVEN) is an uncommon skin disorder first described by Altman and Mehregan in 1971. It is a distinct variety of keratinocytic epidermal nevus that is clinically inflammatory and usually psoriasiform. The condition predominantly affects females, with a 4:1 ratio compared to males³. Although the exact cause remains unknown, the disease has been linked to a postzygotic mutation in the GJA1 gene, which encodes connexin 43⁴. Additionally, a mutation in the CARD14 gene has been associated with ILVEN⁵. Germline mutations in CARD14 can lead to CARD14-associated papulosquamous eruption (CAPE), a condition that exhibits features of both psoriasis and pityriasis rubra pilaris. ILVEN is characterized by erythematous papules that merge into linear plaques following Blaschko lines. It typically affects one side of a limb and occasionally involves the trunk. Although primarily unilateral, rare cases of bilateral lesions have been reported. The condition usually appears within the first six months of life, with about 75% of cases diagnosed before the age of five⁶. Adult onset and familial occurrence have also been documented^{1, 7}. Significant pruritus is a common symptom. If untreated, the lesions often persist lifelong. ILVEN has been linked to arthritis, which can lead to complications such as cartilage damage, growth abnormalities, and joint contractures⁸. Rarely, ipsilateral skeletal anomalies may be present, requiring differentiation from congenital hemidysplasia with ichthyosiform nevus and limb defects

(CHILD) syndrome, an X-linked dominant condition characterized by epidermal nevi⁹.

ILVEN is notoriously difficult to treat, with various approaches documented in the literature⁸. Surgical excision may be effective, though patients should be advised of the risk of scarring. The 585 nm pulsed dye laser, which works by inducing mast cell degranulation and destroying blood vessels within the lesion, has shown success in certain cases¹⁰. Topical therapies, such as a combination of 0.1% tretinoin cream and 5% 5-fluorouracil, have demonstrated promising outcomes¹¹. Additional treatments include crisaborole ointment, intralesional steroids, podophyllin

ointment, TNF inhibitors, and laser-based therapies such as excimer laser, fractional CO2 laser, and ablative CO2 laser. Treating JED is similarly challenging and typically involves topical antibiotics, miconazole, zinc oxide, and nonsteroidal anti-inflammatory drugs (NSAIDs). Topical sucralfate has shown some success in managing the condition; however, recurrence is common once treatment is discontinued¹². Our patient was counseled and chose treatment through serial excisions to reduce the risk of scarring. During follow-up, no significant complications were noted, and the disease has not relapsed (Figure 4).



Figure 4 (a and b) Patient was treated with serial excision

A review of published case reports indicates that Jacquet erosive dermatitis is most commonly associated with frequent or prolonged irritation, such as exposure to urine, feces, or occlusive diaper use. It has also been described in conditions like Hirschsprung disease and COVID-19, where recurrent defecation contributes to chronic perianal irritation. In our patient, the diagnosis of JED was supported by the presence of characteristic macerated verrucous erosions confined to the groin, the absence of other potential irritant exposures, and histopathologic findings fully

consistent with JED. The development of JED in this case is most plausibly explained by the underlying ILVEN. The elevated, hyperkeratotic surface of the ILVEN plaque likely increased local susceptibility to friction and maceration, while the preexisting inflammatory infiltrate within ILVEN may have further lowered the irritant threshold. Chronic friction and moisture accumulation over this raised lesion therefore created a persistently vulnerable microenvironment that favored erosive dermatitis. This is consistent with the observation that the contralateral limb,

which does not have ILVEN, showed no evidence of JED.

Conclusion

In conclusion, this is the first reported case of Jacquet erosive dermatitis occurring on ILVEN. As previously established, Jacquet erosive dermatitis typically results from prolonged irritation. In this case, we hypothesize that its occurrence on ILVEN is due to repeated external irritation from its raised lesion. Therefore, it is important to assess patients with ILVEN for the presence of associated erosions or ulcerations. Further studies are needed to clarify the precise pathophysiology linking these two conditions and to establish appropriate management strategies.

Author Contributions

Conceptualization: K.O., P.C.; Investigation: K.O.; Writing – original draft preparation: K.O.; Writing – review and editing: P.C.; Supervision: P.C. All authors have read and agreed to the published version of the manuscript.

Ethics Statements

This case report was conducted in accordance with the Declaration of Helsinki. Written informed consent was obtained from the patient's parent/legal guardian for the publication of this case report, including potentially identifiable clinical images.

Funding

This research received no funding.

Acknowledgements

The authors would like to thank Dr. Suthep Jerasutus for his assistance with the histopathological interpretation of this case.

Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

AI Declaration

During the preparation of this work, the authors used ChatGPT (GPT-4o; OpenAI) to check grammar and improve language readability. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

References

1. Rodriguez-Poblador J, González-Castro U, Herranz-Martínez S, Luelmo-Aguilar J. Jacquet erosive diaper dermatitis after surgery for Hirschsprung disease. *Pediatr Dermatol* 1998;15:46-7.
2. Robson KJ, Maughan JA, Purcell SD, Petersen MJ, Haefner HK, Lowe L. Erosive papulonodular dermatosis associated with topical benzocaine: a report of two cases and evidence that granuloma gluteale, pseudoverrucous papules, and Jacquet's erosive dermatitis are a disease spectrum. *J Am Acad Dermatol* 2006;55:S74-80.
3. Kawaguchi H, Takeuchi M, Ono H, Nakajima H. Adult onset of inflammatory linear verrucous epidermal nevus. *J Dermatol* 1999;26:599-602.
4. Umegaki-Arao N, Sasaki T, Fujita H, et al. Inflammatory Linear Verrucous Epidermal Nevus with a Postzygotic GJA1 Mutation Is a Mosaic Erythrokeratoderma Variabilis et Progressiva. *J Invest Dermatol* 2017;137:967-70.
5. Riachi M, Polubothu S, Stadnik P, et al. Molecular Genetic Dissection of Inflammatory Linear Verrucous Epidermal Naevus Leads to Successful Targeted Therapy. *J Invest Dermatol* 2021;141:2979-83.
6. Lee SH, Rogers M. Inflammatory linear verrucous epidermal naevi: a review of 23 cases. *J Dermatol* 2001;42:252-6.
7. Goldman K, Don PC. Adult onset of inflammatory linear verrucous epidermal nevus in a mother and her daughter. *Dermatology*. 1994;189:170-2.

8. Al-Enezi S, Huber AM, Krafchik BR, Laxer RM. Inflammatory linear verrucous epidermal nevus and arthritis: a new association. *J Pediatr* 2001;138:602-4.
9. Happle R. The group of epidermal nevus syndromes Part I. Well defined phenotypes. *J Am Acad Dermatol* 2010;63:1-22.
10. Alster TS. Inflammatory linear verrucous epidermal nevus: successful treatment with the 585 nm flashlamp-pumped pulsed dye laser. *J Am Acad Dermatol* 1994;31:513-4.
11. Kim JJ, Chang MW, Shwayder T. Topical tretinoin and 5-fluorouracil in the treatment of linear verrucous epidermal nevus. *J Am Acad Dermatol* 2000;43:129-32.
12. Paradisi A, Capizzi R, Ghitti F, Lanza-Silveri S, Rendeli C, Guerriero C. Jacquet erosive diaper dermatitis: a therapeutic challenge. *Clin Exp Dermatol* 2009;34:e385-6.

Use of Tildrakizumab in Two Obese Patients with Severe Psoriasis: First Experience in Thailand

Chanisada Wongpraparut MD*, Pravit Asawanonda MD, DSc**.

*Department of Dermatology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand.

**Division of Dermatology, Department of Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand.

ABSTRACT:

This report presents the first long-term follow-up experience in Thailand of tildrakizumab, a novel interleukin-23 inhibitor, for the treatment of severe psoriasis in two obese patients. Notably, both patients demonstrated rapid treatment response, achieving a 75% improvement on the Psoriasis Area and Severity Index (PASI 75) at week 4 following the first dose. During the one-year follow-up period, the symptoms were largely controlled for most of the duration but later slightly aggravated potentially caused by multiple external factors, particularly improper weight control. Effective weight management is essential for sustaining therapeutic response.

Key words: tildrakizumab, psoriasis, obesity, Thailand

Introduction

Tildrakizumab is an interleukin-23 inhibitor with an approved indication for moderate-to-severe psoriasis that is recently available in Thailand. To date, there is no published data on the clinical effectiveness of this biologic agent, especially regarding long-term follow-up in the Thai population. We report the first two cases of tildrakizumab use in Thai obese patients with severe psoriasis. Informed consents were obtained from the patients for the sharing of their photographs.

Case 1

A 26-year-old Thai female patient with obesity (weight 103.1 kg, height 162 cm; body mass index [BMI] 39.28 kg/m²) presented with erythrodermic psoriasis. Her medical history included dyslipidemia and psoriasis since childhood. The disease was managed with oral

acitretin (unknown dosage) and was subsequently transitioned to traditional Chinese medicine without satisfactory clinical improvement. Upon initial evaluation, the patient exhibited severe psoriasis at all body sites, which involved more than 90% of the body surface area (BSA). Tildrakizumab was initiated at the dose of 100 mg at weeks 0, 4, and every 12 weeks thereafter. An impressive improvement was observed following the first dose, with a reduction of Psoriasis Area and Severity Index (PASI) from 45.2 to 11.2. The disease was effectively controlled, as indicated by a reduction of BSA involvement to 8% and a PASI score of 2.0 (Table 1). Notably, there was an outstanding outcome in the rash on the arm, with markedly clearer skin. The lesions on the hand resolved and turned hypopigmented. (Figure 1)

The patient expressed that she felt extremely satisfied. On the fifth visit (week 40), flared lesions were noted in areas such as the abdomen, back, and arms, accompanied by a slight resurgence of BSA involvement and PASI. Potential contributing factors for the aggravated symptoms included a recent upper

respiratory tract infection and suboptimal weight control, with an increase of approximately nine kilograms. The disease was later successfully controlled upon continuation of the biologic. There were no adverse events observed during the entire treatment period.

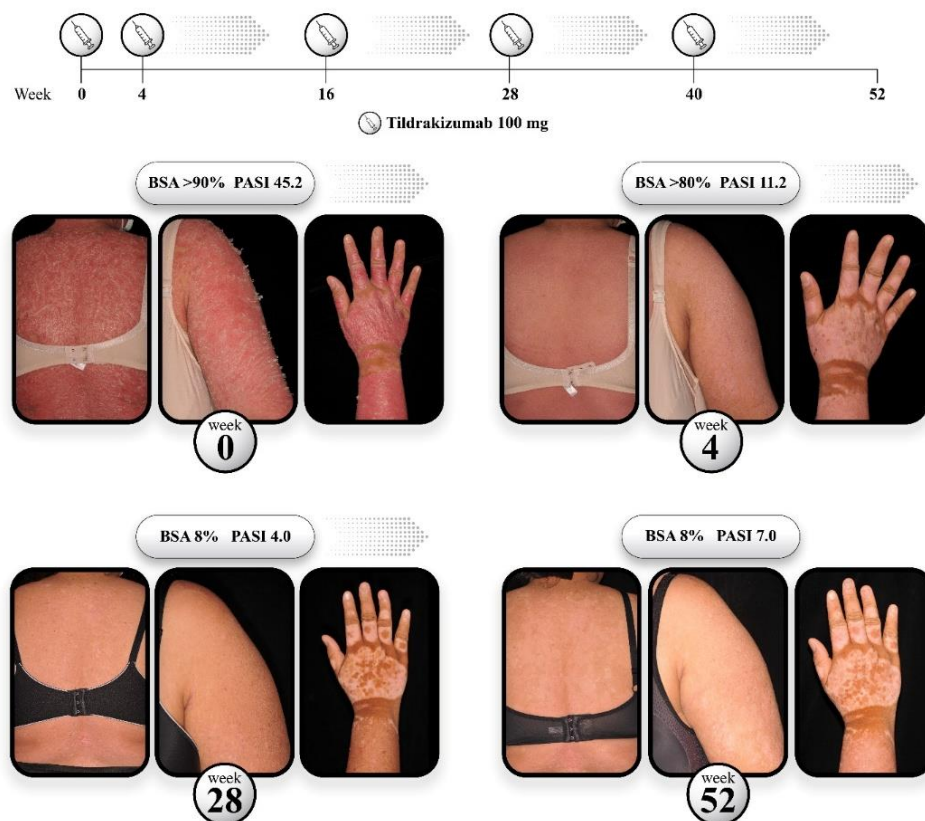


Figure 1 Treatment response of the first patient after tildrakizumab treatment

BSA: body surface area, PASI: Psoriasis Area and Severity Index

Table 1 Clinical progression of two patients undergoing treatment with tildrakizumab.

Week	0	4	16	28	40	52
Case 1						
BSA (%)	>90	>80	50	8	15	8
PASI	45.2	11.2	2.0	4.0	24.0	7.0
Case 2						
BSA (%)	60	10	2	3	3	5
PASI	21.4	4.9	2.0	3.3	4.2	3.8

BSA: body surface area, PASI: Psoriasis Area and Severity Index

Case 2

The second case is a 19-year-old male patient (weight 124.6 kg, height 178.5 cm; BMI 39.11 kg/m²) with underlying diseases of hypertension and type 2 diabetes mellitus. His current medication included manidipine for blood pressure control. He had been diagnosed with psoriasis for seven years and nine months. Methotrexate at 10 mg/week was prescribed for seven months but discontinued due to transaminitis. Subsequently, cyclosporine at 300 mg/day was administered for one year, without adequate treatment response. Physical examination revealed severe psoriasis characterized by multiple well-defined erythematous plaques with silvery scales on

trunk and all extremities, involving 60% of his BSA and a PASI score of 21.4. A standard regimen of tildrakizumab was prescribed, resulting in a favorable response after the first dose (Table 1, Figure 2), with the patient expressing satisfaction with the treatment. His psoriasis was controlled until week 40, when a relapse of rash on the legs occurred, which was likely attributable to a 10-kilogram increase in body weight from baseline. To enhance disease control, the dosage of tildrakizumab was increased to 200 mg at week 52, with clinical response evaluation pending on the upcoming follow-up visit. The treatment is safe with no documented adverse events observed.

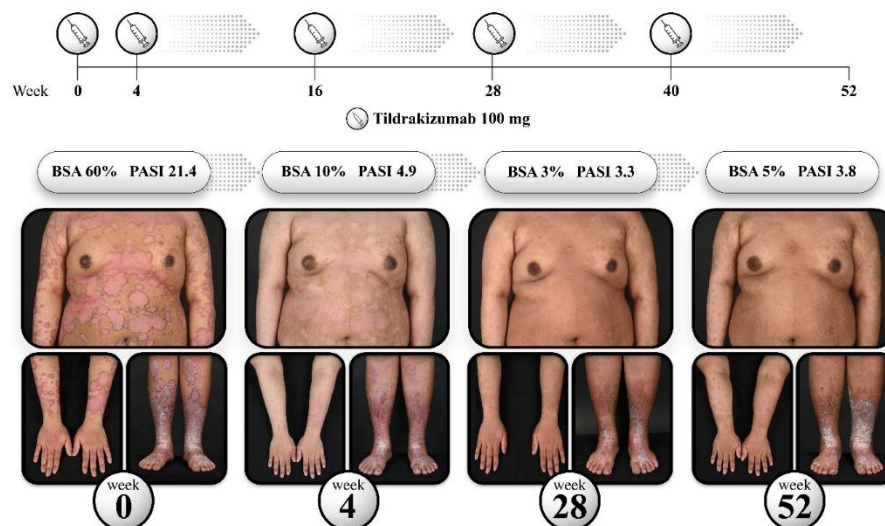


Figure 2 Treatment response of the second patient after tildrakizumab treatment

BSA: body surface area, PASI: Psoriasis Area and Severity Index

Discussion

These two cases demonstrate real-world effectiveness of tildrakizumab for managing severe psoriasis among the first two obese patients in Thailand. Long-term follow-up data from these cases provide comprehensive insights into the treatment course and the challenges encountered in maintaining clinical response throughout the patient journey. At the initiation of treatment, despite the suitability in

escalating the dosage from 100 mg to 200 mg in patients who weigh over 90 kg,¹ both patients initially received the standard 100 mg dose, and clinical success was achieved. Moreover, rapid treatment responses in achieving a 75% improvement on the Psoriasis Area and Severity Index (PASI 75) were observed at week 4 following the first injection. This onset of response was notably faster compared to those reported in the reSURFACE1 and

reSURFACE2 trials, where PASI 75 was generally achieved by week 12². This difference may be attributed to the patients being biologic-naïve. Moreover, the drug has shown benefits in terms of patient satisfaction, in accordance with evidence from the POSITIVE study that has demonstrated the benefits of tildrakizumab in quality of life, which extends beyond the efficacy of disease control³.

Numerous factors can exacerbate psoriasis symptoms and need to be controlled, particularly in treatment-experienced patients, which may pose a greater challenge in maintaining the treatment response. Infection can induce immune cells to produce inflammatory cytokines that can aggravate psoriasis⁴. Obesity causes inflammation and metabolic disturbance that could lead to immune dysregulation, resulting in compromised efficacy of psoriasis treatment⁵. Furthermore, environmental factors could also affect psoriasis control, as evidenced by the exacerbation of both patients' conditions during the cooler months in Thailand. Correlation between seasonal variation and psoriasis control was observed. While 50% of patients can be season-independent, approximately 30% show better disease management during the summer months, which might be affected by sunlight exposure and increased temperature⁶. Additionally, Thailand was facing issues of heightened air pollution during this period, where coarse particulate matter (PM) was found to be associated with worsening PASI⁷.

Weight gain of up to 10 kilograms was observed in two cases. Upon history taking, both patients reported poor eating habits, excessive food intake and a sedentary lifestyle. These external factors likely contributed to the weight gain, rather than effects of the disease or anti-interleukin-23 therapy. Among all potential contributing factors, improper weight control is proposed as the primary cause of the unsustainable treatment response. This assertion is supported by robust evidence,

including local data indicating that metabolic syndrome adversely affects psoriasis severity and treatment outcomes, with a BMI of 23 kg/m² or higher and abdominal obesity increasing the risk of treatment failure^{8,9}. Certain eating style has also been associated with psoriasis severity, as demonstrated in a cross-sectional study in Thailand¹⁰.

Consequently, finding from these cases underscores the critical importance of weight management in obese patients with psoriasis. Physicians should encourage patients to adopt a holistic approach that includes weight management strategies aimed at promoting weight loss or preventing further weight gain, particularly in patients who may neglect weight control following initial treatment success. To optimize disease management, the dosage of tildrakizumab can be increased to 200 mg, and early administration of this escalated dose may be beneficial for certain patient populations, such as those who are overweight, have metabolic syndrome, or are at risk of poor treatment adherence. Additionally, the escalated dose may also be considered for patients with a high disease burden, those who have failed prior biologic therapy, or patients with the disease in difficult-to-treat areas¹.

Conclusion

These two case reports present the effectiveness of tildrakizumab for managing severe psoriasis in Thai obese patients. Initiation of treatment with the standard 100 mg dose could result in a favorable and rapid therapeutic response. Nevertheless, a holistic approach that includes weight management and control of underlying metabolic syndrome is essential for sustaining clinical response.

Author Contributions

Conceptualization: [C.W., P.A.]; Methodology: [C.W, P.A]; Writing – review and editing: [C.W, P.A]; Supervision: [P.A]. All

authors have read and agreed to the published version of the manuscript.”

Ethics Statements

Ethical approval was not required due to a single case report from each institute. The informed consent was obtained from both patients for publication of their clinical information and photographs.

Funding

A product was supported by Ranbaxy (Thailand) Co.,Ltd.

Acknowledgements

Medical writing and editorial support were provided by the editorial team, led by Bhitta Surapat, BCP, of TIMS (Thailand) Co., Ltd.

Conflict of Interest

Author [C.W, P.A.] has received speaker honoraria from Ranbaxy (Thailand) Co.,Ltd.

AI Declaration

The authors declare that no generative artificial intelligence (AI) or AI-assisted technologies were used in the writing or preparation of this manuscript.

References

1. Dapavo P, Burlando M, Guarneri C, et al. Tildrakizumab: the value of a personalized and flexible approach for treating moderate-to-severe plaque psoriasis in patients with high body weight or high disease burden. *Expert Opin Biol Ther* 2024;24:133-8.
2. Reich K, Papp KA, Blauvelt A, et al. Tildrakizumab versus placebo or etanercept for chronic plaque psoriasis (reSURFACE 1 and reSURFACE 2): results from two randomised controlled, phase 3 trials. *The Lancet* 2017;390:276-88.
3. Mrowietz U, Sommer R, Gerdes S, et al. Patient-Reported Well-Being in Value-Based Routine Care Using Tildrakizumab: 52-week Interim Data of the Phase IV Positive Study. *Psoriasis (Auckl)* 2025;15:243-59.
4. Zhou S, Yao Z. Roles of Infection in Psoriasis. *Int J Mol Sci.* 2022;23:6955.
5. Vata D, Tarcau BM, Popescu IA, et al. Update on Obesity in Psoriasis Patients. *Life (Basel)* 2023;13:1947.
6. Jensen KK, Serup J, Alsing KK. Psoriasis and seasonal variation: A systematic review on reports from Northern and Central Europe-Little overall variation but distinctive subsets with improvement in summer or wintertime. *Skin Res Technol* 2022;28:180-6.
7. Bellinato F, Adami G, Vaienti S, et al. Association Between Short-term Exposure to Environmental Air Pollution and Psoriasis Flare. *JAMA Dermatol* 2022;158:375-81.
8. Chularojanamontri L, Wongpraparut C, Silpa-Archa N, Chaweekulrat P. Metabolic syndrome and psoriasis severity in South-East Asian patients: An investigation of potential association using current and chronological assessments. *J Dermatol* 2016;43:1424-8.
9. Boonkrong P, Shakya S, Kraunamkam W, Simmachan T. Dietary patterns and psoriasis severity in Thai patients: a machine learning approach for small sample data. *Sci Rep* 2025;15:33088.
10. Roongpisuthipong W, Klangjareonchai T. The Relationship between Eating Styles and the Severity of Psoriasis: A Cross-Sectional Study in Thailand. *Dermatol Ther* 2024;2024:6677244.

Anti-TIF1 γ Antibody-Positive Dermatomyositis: A Case Report and Literature Review Emphasizing on Malignancy Screening Interval

Sonphet Chirasuthat MD*, Pintip Ngamjanyaporn MD**,
Kumutnart Chanprapaph MD*.

**Division of Dermatology, Department of Medicine, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand.*

***Division of Allergy Immunology and Rheumatology, Department of Medicine, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand.*

ABSTRACT:

Anti-transcription intermediary factor 1 gamma (TIF1- γ) antibody-positive dermatomyositis (DM) is highly associated with malignancy; thus, cancer screening is essential. Malignancies associated with DM frequently manifest around the time of development of the skin rash, and the risk of malignancy were believed to be high up to three years after the diagnosis of DM. Herein, we report a 54-year-old Thai man who presented with erythematous plaques on the head, neck, and extremities, accompanied with dysphagia for 6 months, and was subsequently diagnosed with amyopathic DM based on positive antinuclear antibody, normal muscle enzymes, and clinicopathologic findings. Routine malignancy screening was performed at the disease onset and revealed negative results. However, after approximately five years, he presented with otologic symptoms. Computed tomography scan of nasopharynx showed an infiltrative lesion at left-sided nasopharynx, and the nasopharyngeal mucosa biopsy revealed non-keratinizing nasopharyngeal carcinoma. Since anti-TIF1 γ antibodies are linked to an increased risk of cancer, it is crucial for physicians to develop cancer screening plans tailored to the specific population. Extending cancer screening beyond the recommended three-year period using a risk-stratified, cost-effective, and age-appropriate approach may be beneficial for the detection of cancer in DM patients while minimizing unnecessary and invasive investigations.

Key words: dermatomyositis, malignancy, anti-transcription intermediary factor 1 gamma, nasopharyngeal carcinoma

Introduction

Dermatomyositis (DM) is a systemic autoimmune disease characterized by chronic inflammation in multiple organs, most commonly the skin and muscles. It is diagnosed based on the classification criteria of Bohan and Peter¹. For more than a century, DM has been linked to the underlying malignancy; the first association was reported by Stertz in 1916^{2,3}. Older age, male sex, and the presence of dysphagia have been indicated as risk factors for developing cancers^{4,5}. Recently, strong associations have also been reported between internal malignancies and anti-transcription intermediary factor 1 γ (TIF1 γ) autoantibodies. The prevalence of malignancy in patients with

DM is estimated to be 15–30%^{1,6}. As a result, cancer screening and prompt therapeutic intervention are critical for DM patients. An appropriate interval and duration of cancer surveillance in patients with DM is unclear, but previous studies and recent expert recommendations suggest that continued surveillance be maintained for at least 36 months from the onset of DM⁵. We herein report a case of nasopharyngeal carcinoma (NPC) diagnosed five years after the onset of anti-TIF1 γ antibody-positive amyopathic DM. We suggest that cancer surveillance may need to be extended longer in anti-TIF1 γ -positive patients with high risk and persistently active disease.

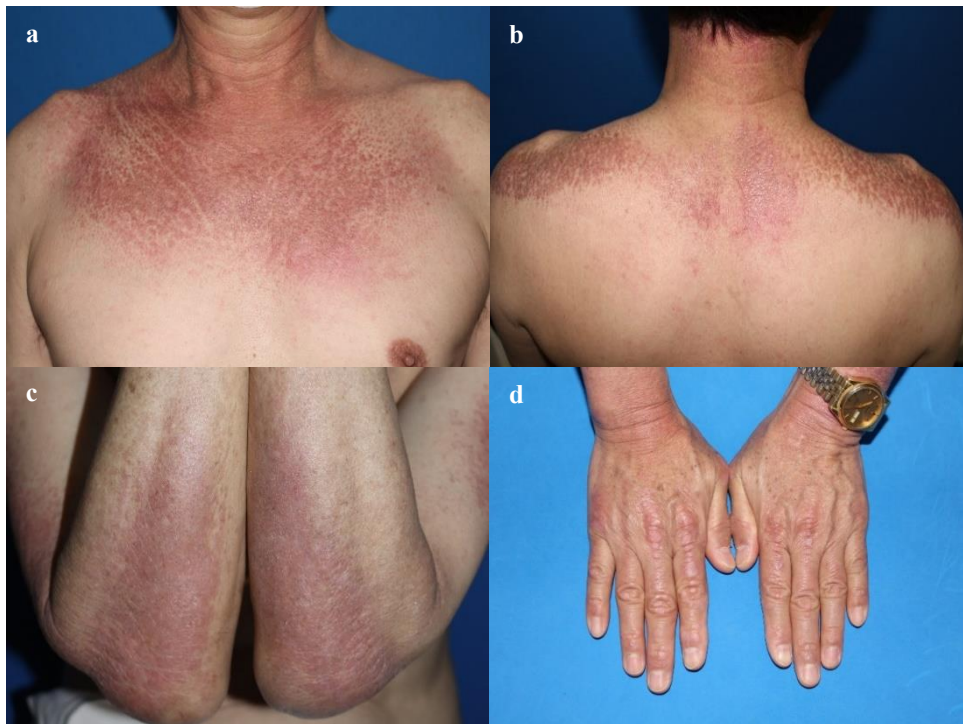


Figure 1 a V-neck sign and b Shawl sign with “Red on white” feature, c Gottron’s sign, d Hyperkeratotic Gottron’s papules

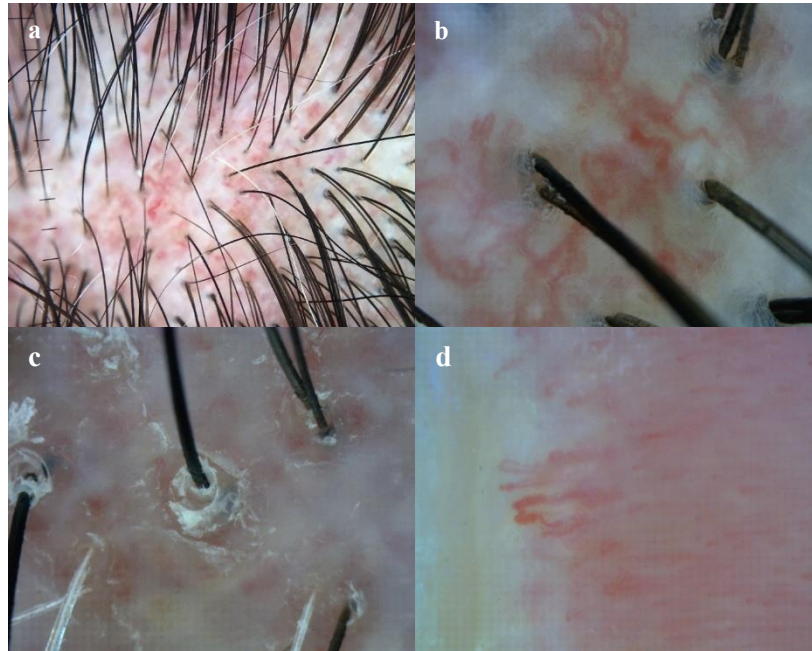


Figure 2 Trichoscopic features: **a** perifollicular red-brown hyperpigmentation **b** interfollicular location of aberrant vessel **c** perifollicular scale; onychoscopic features: **d** tortuous and giant capillaries with avascular area

Case Presentation

A 54-year-old Thai man presented with pruritic erythematous rash on the head, neck, upper extremities, and thighs, together with dysphagia for 6 months. He was an ex-smoker with a 10-pack-year history of smoking. Physical examination revealed blanchable erythematous plaques predominantly located on the extensor surfaces, including the elbows, knees, and dorsum of the hands over the knuckles, as well as the proximal and distal interphalangeal joints (Gottron papules), which were distinctly hyperkeratotic. Ragged cuticles and periungual telangiectasia on both hands were noticed. There were hypopigmented and telangiectatic patches (“red on white”) that extended from the scalp and face to the upper back and chest. V-neck sign, Shawl sign, and Holster sign were also observed (Figure 1a–d). Muscle weakness was absent. Trichoscopic examination of the scalp revealed perifollicular red-brown hyperpigmentation and scales,

together with numerous interfollicular aberrant vessels (Figure 2a–c). The onychoscopic examination of the nailfolds demonstrated tortuous and giant capillaries admixed with avascular areas (Figure 2d). The patient was tested positive for anti-nuclear antibody at a titer of 1:320 and 1:80 with fine and coarse speckle patterns, respectively. The anti-TIF1 γ antibody was positive (2+) by immunoblot assay. His serum creatine phosphokinase and aldolase levels were negative. A skin punch biopsy obtained from the dorsum of hand revealed focal interface dermatitis with sparse superficial perivascular infiltration of predominantly lymphocytes and a few melanophages. Direct immunofluorescence illustrated non-specific findings. Quadriceps muscle biopsy showed mild atrophic and regenerating fibers without hypertrophic, necrotic, or degenerated fibers. Electromyography demonstrated a non-specific polyphasic motor unit action potential of the

right deltoid muscle. Based on the history, clinicopathological, and serological findings, the patient was diagnosed with amyopathic DM. Cancer screening, including nasopharyngeal examination, genitourinary inspection, computed tomography (CT) scan of the chest and whole abdomen, as well as positron emission tomography (PET) scan, were performed and did not reveal any evidence of malignancy. A pulmonary function test revealed no evidence of interstitial lung disease. He was initially treated with topical tacrolimus, oral prednisolone, and hydroxychloroquine. Due to the disease worsening following outdoor activities, proper photoprotective measures were advised, while methotrexate and mycophenolate mofetil were added over time. The patient underwent consistent biannual follow-up, revealing no abnormal findings; however, after five years and two months from the onset of DM, the patient presented to the otolaryngology department complaining of tinnitus and hear impairment on the left ear. He also developed a new onset of blood-tinged

sputum. Magnetic resonance imaging of the neck shows an infiltrative, enhancing T1-isointense and T2-hyperintense lesion involving the left-sided nasopharynx, including left Rosenmuller fossa, left torus tubarius, and left eustachian tube opening. The lesion also extended to the left choana (Figure 3a, b). Nasopharyngeal mucosa biopsy revealed an atypical Epstein-Barr virus-encoded small RNA-positive cell that was compatible with non-keratinizing NPC. Due to the lack of nodal or distant metastasis, it was graded as stage III (T3N0M0) NPC, according to the American Joint Committee on Cancer system. After completing six cycles of concurrent chemoradiotherapy (CCRT) combined with intravenous cisplatin (40 mg/cycle), a three-month follow-up nasopharyngeal MRI showed a decrease in size of the mass; requiring further close monitoring. The rash substantially improved after completing CCRT (Figure 4a–d) and gradual tapering of immunosuppressive drugs was successfully achieved over time.

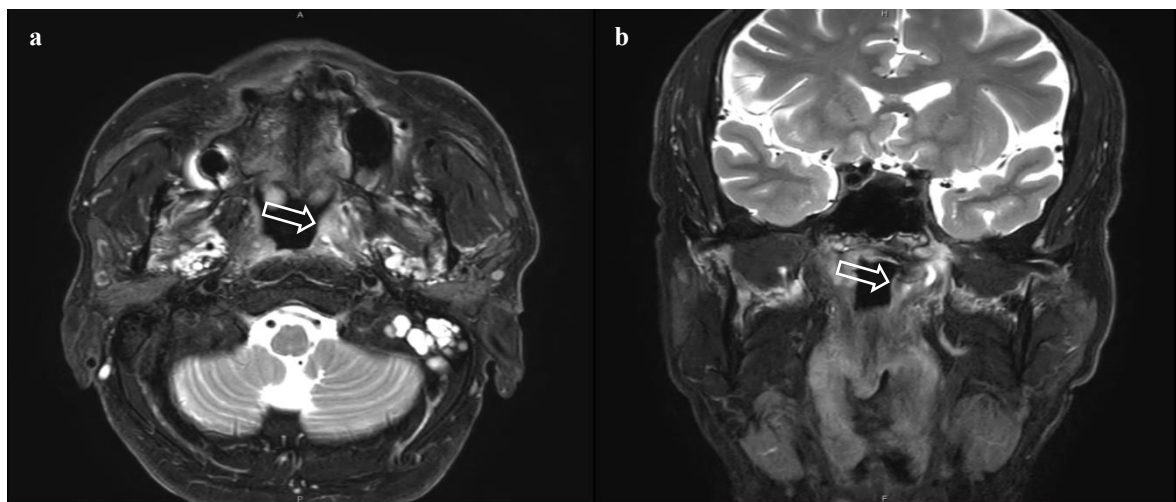


Figure 3 **a** Axial and **b** coronal views of MRI of the neck (T2 phase): an infiltrative lesion involving the left-sided nasopharynx, including Rosenmuller fossa, torus tubarius, and eustachian tube opening



Figure 4 Five months after completing six cycles of CCRT combined with intravenous cisplatin, the lesions resolved with post inflammatory hyperpigmentation on **a** neck, **b** shoulders, **c** elbows, and **d** dorsum of hands

Discussion

Dermatomyositis (DM) is a relatively rare disease that can be found worldwide. The incidence of DM ranges from 2 to 9 per million among various populations⁷. Women are twice as likely as men to be affected by the disease without racial predilection. The clinical expression of DM is heterogeneous and exhibits distinctive cutaneous, scalp, and microvascular abnormalities that may have diagnostic and prognostic relevance. Trichoscopic findings (e.g., perifollicular red-brown pigmentation, peri/interfollicular scale, and perifollicular aberrant vessels) and nailfold capillaroscopic findings (e.g., enlarged capillaries, disorganized capillaries, and avascular areas) have been described and were also observed in our case^{8,9}. Anti-TIF1 γ antibody-positive DM is further

associated with extensive characteristic skin lesions such as palmar papules, photosensitive erythema, heliotrope rash, V-neck rash, nailfold telangiectasia, and the holster sign. Some proposed anti-TIF1 γ antibody-positive DM-specific findings include hyperkeratotic Gottron papules and hypopigmented telangiectatic patches (“red on white”). Systemic symptoms, including Raynaud phenomenon, arthritis/arthralgia, and interstitial lung disease, are significantly less frequent in anti-TIF1 γ antibody-positive DM than in antibody-negative DM⁴. Our case highlighted the association between anti-TIF1 γ positivity and these clinical findings.

An increased risk of cancer in DM has been well described for over a century. In our case, amyopathic DM was diagnosed due to the lack

of muscle involvement for at least 2 years after the development of cutaneous manifestations. Like classic DM, amyopathic DM also shows an association with malignancy. Some consider the risk to be similar, while others believe it is reduced⁷. Reports on associated malignancies include lung, breast, ovary, pancreas, stomach, colon, prostate, and nasopharynx. NPC is one of the most common malignancies associated with DM, particularly in Asians^{5,7,10}. Previous studies conducted in the Asian population have consistently reported a prevalence of NPC ranging from 17.6% to 89.0% among cases of cancer-associated dermatomyositis (CDM)⁵. These findings emphasize that laryngoscopy assessment should be included in malignancy screening among DM patients, especially in the endemic populations such as China and Southeast Asia.

Myositis-specific autoantibodies (MSA), including anti-TIF1 γ , anti-aminoacyl-tRNA synthetases (ARSs), anti-clinically amyopathic DM-140 (CADM-140) / melanoma differentiation-associated gene 5 (MDA5), anti-Mi-2, and anti-nuclear matrix protein 2 (NXP2) antibodies, have been implicated in classifying DM subtypes with distinct clinical manifestations and prognosis. Among MSA, the risk of malignancy varies substantially, with anti-TIF1 γ and anti-NXP2 most consistently associated with cancer, whereas anti-Mi-2 is generally linked to a lower malignancy risk and a more favorable prognosis. In contrast, anti-ARSs and anti-MDA5 antibodies are more commonly associated with interstitial lung disease rather than malignancy, underscoring the importance of antibody-specific risk stratification¹¹. Consistent with this risk profile, the anti-TIF1 γ antibody has been strongly related to CDM. TIF1 γ , a member of the tripartite motif-containing family, regulates transcription, cell growth, and apoptosis^{2,4}. TIF1 γ inhibits transforming growth factor- β signaling by ubiquitinating SMAD4. The increased expression of these proteins in several

tumoral tissues may be related to a misguided immunologic anti-tumoral response. This relationship would explain an etiopathogenetic connection between neoplasms and adult DM associated with anti-TIF1 γ antibodies^{2,4}. DM patients with a positive anti-TIF1 γ antibody have an 8–27-fold higher risk of cancer than those without anti-TIF1 γ antibody^{4,12}. Anti-TIF1 γ antibodies have also been found in juvenile DM but are rarely complicated by malignancies.

We conducted a literature search in PubMed for studies on CDM with anti-TIF1 γ positivity using the keywords 'dermatomyositis,' 'anti-transcription intermediary factor 1 gamma,' and 'malignancy,' limited to English-language articles published between 2010 and 2024 (Table 1). Case reports of ten males and twelve females, with a mean age of 58.1 years, were included. The majority of anti-TIF1 γ -positive patients with cancer were diagnosed concurrently with DM (16 of 22); three patients were diagnosed with cancer before the onset of DM. The longest duration of cancer preceding the onset of DM was observed to be thirty months. Among the three patients who were diagnosed with cancer after the onset of DM, the most delayed onset of cancer occurred 22 months thereafter. According to Teo et al.¹³, 90% of NPC cases occurred following DM onset, and DM manifestations preceded the diagnosis of NPC by approximately eight months. Ogawa-Momohara et al.³ reported that malignancies were discovered after DM diagnosis in 78.3% of anti-TIF1 γ -positive patients and 66.7% of anti-TIF1 γ -negative patients. The mean interval from DM to cancer diagnosis was 2.2 months in anti-TIF1 γ -positive patients and 20 months in the negative ones. Momohara et al.³ also reported that 87% of anti-TIF1 γ -positive DM patients with cancer received their cancer diagnosis within six months of DM onset, while Lau et al.⁵ demonstrated a similar incidence (90%) within a year of DM onset. The highest cancer risk

occurred within the first year of DM and decline over time. However, in our case, coexisting malignancy occurred much further from the onset of DM. Within this context, the International Myositis Assessment and Clinical Studies Group (IMACS) guideline provides a structured, risk-stratified framework for malignancy surveillance in idiopathic inflammatory myopathies¹⁴. Our patient fulfilled multiple IMACS high-risk criteria, placing him in the highest cancer-risk category. Although IMACS recommendations emphasize surveillance during the first three years after disease onset, the current recommendations are largely based on expert consensus and acknowledge uncertainty regarding the optimal timing and frequency of screening. To the best of our knowledge, there was one prior case report where malignancy developed five years after the diagnosis of amyopathic DM. Together with this report, we suggest that physicians be aware of the possibility of malignancies occurring after the diagnosis of DM for more than three years, especially in high-risk patients.

However, to minimize unnecessary investigations, a risk-stratified, cost-effective, and age-appropriate screening protocol is recommended. Furthermore, an attempt to correlate cancer progression with anti-TIF1 γ showed that the anti-TIF1 γ -positive group with cancer had a significantly greater frequency of metastatic disease than those with negative anti-TIF1 γ antibodies (91% versus 50%, $p < 0.0046$)¹⁵. Nevertheless, our review showed a similar number of metastatic versus non-metastatic diseases among anti-TIF1 γ -positive patients (7 versus 9). Future studies are needed to confirm this association.

Conclusion

Prompt screening for cancers endemic to the patient population is important for DM patients in both the classic and amyopathic subtypes. Extending a period of malignancy surveillance after the onset of DM beyond the recommended three-year period in anti-TIF1 γ -positive DM patients may confer additional clinical benefit.

Table 1 Review of reports on anti-TIF1 γ antibody-positive DM and malignancy

Study	Age (years)/ Sex	Race/ ethnicity	Antibodies	Skin Histopathology	DM subtype	Malignancy type/ staging	Onset of malignancy and DM	DM treatment(s)	Follow-up
Our case	54/M	Asian	ANA: 1:320 (fine speckle)/ 1:80 (coarse speckle) Anti-TIF1 α : negative Anti-TIF1 γ : positive 2+	Focal interface dermatitis with sparse superficial perivascular infiltration of lymphocytes and a few melanophages	Amyopathic DM	NPC (non-keratinizing undifferentiated subtype)/ stage III (T3N0M0)	5 years after DM diagnosis	Topical tacrolimus, oral prednisolone 5 mg/day, hydroxychloroquine 200 mg/day, methotrexate 7.5 mg/week, mycophenolate mofetil 1500 mg/day	Improved
Ito et al. 2013 ¹⁶	59/M	Asian	ANA: 1:80 (homogeneous and speckled pattern) Anti-TIF1 γ/α : positive	Mild dermal periadnexal lymphocytic infiltration and mucinosis	Amyopathic DM	Scirrhous gastric adenocarcinoma/ stage IB (T1bN1M0)	Concurrent	Oral prednisolone 60 mg/day	Improved
Kabuto et al. 2014 ¹⁷	65/M	Asian	ANA: 1:40 Anti-Jo1, Anti-ssDNA, Anti-dsDNA, Anti-Sm, Anti-Ro (SS-A), Anti-La (SS-B), and Anti-RNP: negative Anti-TIF1 γ : positive	Vacuolar degeneration of the basement membrane zone and perivascular lymphocyte infiltration	Classic DM	Oropharyngeal carcinoma/ stage IV	12 months after DM diagnosis	Oral prednisolone 80 mg/day and IVIG	Died in a few months due to distant metastasis
Kubeček et al. 2016 ¹⁸	43/F	Caucasian	Anti-TIF1 γ : positive	NA	Classic DM	Breast adenocarcinoma/ stage IIIC (T1N3M0)	Concurrent	IV methylprednisolone 5 $\times$ 1000 mg alternate days and oral methylprednisolone 32 mg/day	Improved
Ogawa et al. 2016 ¹⁹	63/F	Asian	ANA: 1:40 (speckled pattern) Anti-MDA5 and Anti-ARS: negative Anti-TIF1 γ : positive	NA	Clinically amyopathic DM	Breast cancer/ early stage	2.5 year before DM diagnosis	Topical tacrolimus	Improved
Palterer et al. 2017 ²	78/F	Caucasian	ANA: high-titer (speckled pattern) Anti-OJ, Anti-EJ, Anti-PL12, Anti-PL7, Anti-SRP, Anti-Mi2a, Anti-Mi2b, Anti-MDA5, Anti-NXP2, and Anti-SAE1: negative Anti-TIF1 γ : positive	NA	Classic DM	Myelodysplastic syndrome	Concurrent	IV 6-methylprednisolone 1 g/day for 3 days, IVIG 30 g/day for 4 days, and methotrexate 15 mg/weekly	Improved (patient died 1 year later due to aspiration pneumonia)
Aritomi et al. 2018 ²⁰	63/F	Asian	ANA: 1:640 (speckled and cytoplasmic patterns) Anti-ARS and Anti-Mi-2: negative Anti-Ro60 and Anti-Ro52: positive Anti-TIF1 γ/α : positive	NA	Classic DM	SCLC/ limited stage	5 weeks before DM diagnosis	Oral prednisone 1 mg/kg/day	Died in 5 months after the diagnosis of SCLC

Study	Age (years)/ Sex	Race/ ethnicity	Antibodies	Skin Histopathology	DM subtype	Malignancy type/ staging	Onset of malignancy and DM	DM treatment(s)	Follow-up
Karino et al. 2018 ¹	72/M	Asian	ANA: 1:1280 (speckled and nucleolar pattern) Anti-ARS, Anti-Mi-2, and Anti-MDA5: negative Anti-TIF1γ: positive (107 index)	Mononuclear cell infiltrations around vessels at the dermal-epidermal junction	Classic DM	Squamous cell carcinoma of the thymus	Concurrent	Oral prednisolone 1 mg/kg/day	No disease relapse
Teraishi et al. 2018 ²¹	42/F	Asian	ANA and Anti-Jo1: negative Anti-TIF1γ: positive	Vacuolar change in basal keratinocytes and infiltration of lymphocytes around vessels in the upper dermis	Classic DM	-Breast cancer (medullary carcinoma)/ stage I (T1, N0, M0) -Ovarian cancer (serous cystadenocarcinoma)/ stage IIC (T2c, N0, M0)	Concurrent	Oral prednisolone 30-40 mg/day	Improved
Merry et al. 2020 ²²	43/F	Caucasian	ENA, dsDNA, and Anti-CCP: negative ANA: 1:160 Anti-Jo1 and Anti-Mi2: negative Anti-TIF1γ: positive	NA	Classic DM	Leiomyosarcoma/ stage IV	Concurrent	Emollient cream, topical hydrocortisone 1%, topical clobetasol 0.05%, oral prednisolone 40 mg/day	NA
Nakanishi et al. 2020 ¹²	80/F	Asian	ANA: 1:160 (speckled pattern), Anti-ARS, Anti-MDA5, Anti-Mi-2, and Anti-RNP: negative Anti-TIF1γ: positive (125 index)	NA	NA	Lymphoepithelioma-like carcinoma/ stage III	Concurrent	IV methylprednisolone, 1,000 mg for 3 days and oral prednisolone 1 mg/kg/day	Cancer recurrence at 6 months
Sumazaki et al. 2020 ²³	70/M	Asian	ANA: 1:40 (speckled pattern) Anti-Jo1: negative, Anti-TIF1γ: positive (130 index)	Interface dermatitis with basal vacuolar degeneration at the dermal-epidermal junction and mucin deposition	Classic DM	Esophageal cancer of the lower esophagus/ stage IIIB (pT3N2M0)	Concurrent	Methylprednisolone 80 mg, oral prednisolone 60 mg/day, and methotrexate 6 mg/week	Died in 3 years due to cancer recurrence
Arnon et al. 2021 ²⁴	68/M	Asian	Anti-TIF1γ: positive (64 U)	Hyperkeratosis and vacuolar degeneration	Classic DM	SCLC	Concurrent	Methylprednisolone 1 mg/kg twice a day for 2 days and oral prednisone 1mg/kg once a day for 10 days	Remission
Asano et al. 2021 ²⁵	15/M	Asian	ANA: increased 160-fold (nucleolar pattern) Anti-ARS, Anti-MDA5, and Anti-Mi-2: negative Anti-TIF1γ: positive (109 index)	NA	Juvenile DM	Epstein-Barr virus-related NPC	7 months before DM diagnosis	IV methylprednisolone, oral prednisolone 0.6 mg/kg, methotrexate weekly, and IVIG	Improved
Lau et al. 2021 ⁵	49/F	Asian	Anti-TIF1γ: positive 1+	NA	NA	NPC (non-keratinizing undifferentiated subtype)/ stage II (T1N1M0)	Concurrent	NA	No disease relapse
	67/F	Asian	Anti-TIF1γ: positive 2+	NA	NA	NPC (non-keratinizing undifferentiated subtype)/ stage IVB (T4N1M1)	22 months after DM diagnosis	NA	Died in 11 months due to distant metastasis
	64/M	Asian	Anti-TIF1γ: positive 1+	NA	NA	NPC (non-keratinizing undifferentiated subtype)/ stage II (T2N0M0)	Concurrent	NA	No disease relapse

Study	Age (years)/ Sex	Race/ ethnicity	Antibodies	Skin Histopathology	DM subtype	Malignancy type/ staging	Onset of malignancy and DM	DM treatment(s)	Follow-up
	42/M	Asian	Anti-TIF1γ: positive 1+	NA	NA	NPC (non-keratizing undifferentiated subtype)/ stage IVA (T0N3M0)	Concurrent	NA	Died in 13 months due to distant metastasis
	48/F	Asian	Anti-TIF1γ: positive 2+	NA	NA	NPC (non-keratizing undifferentiated subtype)/ stage III (T3N1M0)	Concurrent	NA	No disease relapse
	53/M	Asian	Anti-TIF1γ: positive 1+	NA	Amyopathic DM	NPC (non-keratizing undifferentiated subtype)/ stage II (T2M0M0)	8 months after DM diagnosis	NA	No disease relapse
H.-L. Liu and Y.-H. Chen 2022 ²⁶	58/F	Asian	Anti-TIF1γ: strongly positive (176 U/ml)	NA	Classic DM	Ovarian serous carcinoma with omental and peritoneal metastasis/ stage IV	Concurrent	Systemic corticosteroids	Improved
Russo et al. 2022 ⁶	69/F	Caucasian	Anti-TIF1γ: positive	Follicular hyperkeratosis, keratotic plugs filling dilated follicular infundibula, vacuolar interface dermatitis, and increased dermal mucin	Wong-type amyopathic DM	Fallopian tube carcinoma	Concurrent	Oral prednisone 1 mg/kg	Remission
Poelman et al. 2023 ²⁷	68/M	NA	ANA: 1:160, (homogenous pattern) Anti-TIF1γ: positive	NA	Classic DM	Papillary urothelial cell carcinoma	Concurrent	IV methylprednisolone 500 mg for 3 days and oral methylprednisolone	Died in 2 years due to distant metastasis

Abbreviations: ANA, anti-nuclear antibodies; ARS, aminoacyl-tRNA synthetases; CCP, cyclic citrullinated peptides; DM, dermatomyositis; dsDNA, double stranded DNA; EJ, glycyl-tRNA synthetase; ENA, extractable nuclear antigen; F, female; IV, intravenous; IVIG, intravenous immunoglobulin; M, male; MDA5, melanoma differentiation associated gene 5; NPC, nasopharyngeal carcinoma; NXP2, nuclear matrix protein 2; OJ, isoleucyl-tRNA synthetase; PL7, threonyl-tRNA synthetase PL12, alanyl-tRNA synthetase; RNP, ribonucleoprotein; SAE1, SUMO Activating Enzyme 1; SCLC, Small cell lung carcinoma; Sm, Smith; SRP, signal recognition particle; SS, Sjögren's syndrome antigen; ssDNA, single stranded DNA; TIF1γ, transcription intermediary factor 1γ; U, unit

Author Contributions

Conceptualization: [K.C.]; Data curation: [P.N.]; Project administration: [S.C.]; Supervision: [K.C.]; Validation: [K.C.]; Writing – original draft: [S.C.]; Writing – review & editing: [K.C.]

Ethics Statements

Ethical approval was not sought for this single-patient case report based on routine clinical care, with no additional interventions or procedures performed for research purposes. Written informed consent was obtained from the patient for the publication and accompanying clinical images.

Funding

This research received no funding.

Acknowledgements

None.

Conflict of Interest

The authors declare that there are no conflicts of interest.

AI Declaration

The authors declare that no generative AI or AI-assisted technologies were used in the writing or preparation of this manuscript.

References

1. Karino K, Fujieda Y, Kawamura T, et al. Anti-TIF1γ antibody predicted malignancy of thymic tumor with dermatomyositis as an "autoimmune tumor marker": A case report. *Medicine (Baltimore)* 2018;97:e13563.
2. Palterer B, Vitiello G, Cammelli D. First report of anti-TIF1γ dermatomyositis in a patient with myelodysplastic syndrome. *Reumatismo* 2017;69:75-7.
3. Ogawa-Momohara M, Muro Y, Mitsuma T, et al. Strong correlation between cancer progression and anti-transcription intermediary factor 1γ antibodies in dermatomyositis patients. *Clin Exp Rheumatol* 2018;36:990-5.

4. Motegi SI, Sekiguchi A, Ikeuchi H, et al. Clinical features of anti-transcription intermediary factor 1 γ (TIF1 γ)-positive dermatomyositis with internal malignancy and investigation of the involvement of TIF1 γ expression in tumors in the pathogenesis of cancer-associated dermatomyositis. *J Dermatol* 2020;47:1395-402.
5. Lau L, Huang L, Fu E, Tan TC, Kong KO, Lim MY. Nasopharyngeal carcinoma in dermatomyositis. *Clin Otolaryngol* 2021;46:1082-8.
6. Russo R, Gasparini G, Cozzani E, Gravina B, Parodi A. Paraneoplastic Wong-Type Dermatomyositis Associated with Gynecological Malignancy. *Medicina (Kaunas)*. 2022;58:484.
7. Ee HL, Ng PP, Tan SH. Exacerbation of amyopathic dermatomyositis in Orientals: a high alert for nasopharyngeal carcinoma. *Australas J Dermatol* 2004;45:77-8.
8. Chanprapaph K, Limtong P, Ngamjanyaporn P, Suchonwanit P. Trichoscopic Signs in Dermatomyositis, Systemic Lupus Erythematosus, and Systemic Sclerosis: A Comparative Study of 150 Patients. *Dermatology* 2022;238:677-87.
9. Chanprapaph K, Fakprapai W, Limtong P, Suchonwanit P. Nailfold Capillaroscopy With USB Digital Microscopy in Connective Tissue Diseases: A Comparative Study of 245 Patients and Healthy Controls. *Front Med (Lausanne)* 2021;8:683900.
10. Chen YJ, Wu CY, Shen JL. Predicting factors of malignancy in dermatomyositis and polymyositis: a case-control study. *Br J Dermatol* 2001;144:825-31.
11. Harada Y, Tominaga M, Ito H, et al. Clinical Characteristics of Anti-TIF-1 γ Antibody-Positive Dermatomyositis Associated with Malignancy. *J Clin Med* 2022;11:1925.
12. Nakanishi Y, Yamaguchi K, Yoshida Y, et al. Coexisting TIF1 γ -positive Primary Pulmonary Lymphoepithelioma-like Carcinoma and Anti-TIF1 γ Antibody-positive Dermatomyositis. *Intern Med* 2020;59:2553-8.
13. Teo P, Tai TH, Choy D. Nasopharyngeal carcinoma with dermatomyositis. *Int J Radiat Oncol Biol Phys* 1989;16:471-4.
14. Oldroyd AGS, Callen JP, Chinoy H, et al. International Guideline for Idiopathic Inflammatory Myopathy-Associated Cancer Screening: an International Myositis Assessment and Clinical Studies Group (IMACS) initiative. *Nat Rev Rheumatol* 2023;19:805-17.
15. Iorizzo LJ, 3rd, Jorizzo JL. The treatment and prognosis of dermatomyositis: an updated review. *J Am Acad Dermatol* 2008;59:99-112.
16. Ito K, Imafuku S, Hamaguchi Y, Fujimoto M, Nakayama J. Case report of anti-transcription intermediary factor-1 γ/α antibody-positive dermatomyositis associated with gastric cancer and immunoglobulin G4-positive pulmonary inflammatory pseudotumor. *J Dermatol* 2013;40:567-9.
17. Kabuto M, Fujimoto N, Teramura K, et al. A case of dermatomyositis with esophageal fistula in whom blind mucosal biopsy detected occult oropharyngeal carcinoma. *Case Rep Dermatol* 2014;6:268-73.
18. Kubeček O, Soukup T, Paulík A, Kopecký J. Dermatomyositis with anti-TIF-1 γ antibodies as a presenting symptom of underlying triple-negative breast cancer: a case report. *BMC Cancer* 2016;16:684.
19. Ogawa M, Sugiura K, Yokota K, Muro Y, Akiyama M. Anti-transcription intermediary factor 1- γ antibody-positive clinically amyopathic dermatomyositis complicated by interstitial lung disease and breast cancer. *J Eur Acad Dermatol Venereol* 2016;30:373-5.
20. Aritomi T, Kido T, Nakano K, et al. Small Cell Lung Cancer Patient with Anti-transcriptional Intermediary Factor 1 γ Antibody Who Developed Dermatomyositis after Successful Chemoradiotherapy. *Intern Med* 2019;58:427-31.
21. Teraishi M, Nakajima K, Ishimoto T, Yamamoto M, Maeda N, Muro Y, et al. Anti-transcription intermediary factor 1 γ antibody titer correlates with clinical symptoms in a patient with recurrent dermatomyositis associated with ovarian cancer. *Int J Rheum Dis* 2018;21:900-2.
22. Merry E, Smrke A, Halai K, et al. Paraneoplastic dermatomyositis associated with metastatic leiomyosarcoma of unknown primary. *Clin Sarcoma Res* 2020;10:15.
23. Sumazaki M, Kaneko K, Ito M, et al. A Case of Dermatomyositis Along with Esophageal Cancer and Screening of Serum Transcriptional Intermediary Factor 1 Gamma Antibodies in

- Various Cancer Patients. *Am J Case Rep* 2020;21:e922004.
24. Arnon J, Elia A, Nevo Y, Lossos A, Nechushtan H. SCLC, Paraneoplastic Dermatomyositis, Positive Transcription Intermediary Factor 1- γ , and Point Mutation in the Transcription Intermediary Factor 1- γ Coding Gene: A Case Report. *JTO Clin Res Rep* 2021;2:100217.
 25. Asano R, Shinoda K, Tsuda R, et al. Anti-TIF1 γ antibody-positive dermatomyositis in a 15-year-old boy with Epstein-Barr virus-related nasopharyngeal cancer receiving nivolumab. *Rheumatology (Oxford)* 2021;60:e197-e9.
 26. Liu HL, Chen YH. Ovoid palatal patch: a portentous sign in dermatomyositis. *Qjm.* 2023;116:377-8.
 27. Poelman A, Neerinckx B, Beuselinck B, De Langhe E. Systemic autoimmune rheumatic diseases as paraneoplastic phenomena: 3 illustrative case reports and narrative review of the literature. *Acta Clin Belg* 2023;78:410-7.

Eccrine syringofibroadenoma of the Sole: A case report

Warissanan Tangtiwiat MD*, Niorn Boonpuen MD*,**.

*Institute of Dermatology, Department of Medical Services, Ministry of Public Health, Bangkok, Thailand.

**Faculty of Medicine, Rangsit University, Pathum Thani, Thailand.

ABSTRACT:

Eccrine syringofibroadenomas (ESFA) are rare benign adnexal tumors originating from the eccrine sweat gland ducts. This condition can appear as either solitary or multiple hyperkeratotic lesions on the extremities of middle-aged to elderly individuals. This report describes an unusual presentation of the condition in a 48-year-old Thai man who presented with a long-standing, asymptomatic erythematous hyperkeratotic plaque on the right sole. Histopathological analysis revealed epidermal hyperplasia with multiple anastomosing epithelial strands forming a characteristic lattice-like network, consistent with ESFA. The patient underwent cryotherapy with liquid nitrogen, resulting in partial clinical improvement. This case demonstrates an uncommon plantar presentation of ESFA and emphasizes the importance of early recognition and histopathological confirmation for appropriate management.

Key words: adnexal tumor, eccrine syringofibroadenoma, plantar hyperkeratosis

Introduction

Eccrine syringofibroadenoma (ESFA) is a rare, non-cancerous skin tumor that develops from eccrine sweat gland ducts or cells in the skin. Clinically, it presents in a diverse array of forms ranging from isolated lesions to multiple hyperkeratotic papules and nodules, most commonly affecting the extremities. Unusual involvement of the nail apparatus nevi¹ and organoid nevi² has also been documented.

ESFA typically affects middle-aged to elderly patients and can be classified into five clinical subtypes based on Starink's classification modified by French: solitary ESFA³, non-familial unilateral linear ESFA⁴, multiple ESFA associated with ectodermal dysplasia (Clouston's syndrome⁵ and Schopf's syndrome⁶, familial ESFA with ophthalmological abnormalities⁷, and reactive ESFA⁸ (Table 1). Although generally benign, rare cases of malignant transformation have been reported, either within longstanding eccrine syringofibroadenoma or in association with eccrine porocarcinoma⁹. In one such case,

the patient developed diffuse plantar hyperkeratosis, which may have resulted from a postzygotic somatic mutation occurring during early embryonic development.

The variable clinical presentation and overlapping histopathologic features of ESFA present significant diagnostic challenges, necessitating careful distinction from other fibroepithelial and adnexal proliferations. The principal differential diagnoses are fibroepithelioma of Pinkus, a variant of basal cell carcinoma that may display thin branching epithelial strands but typically demonstrates peripheral palisading and stromal retraction; eccrine poroma¹⁰, which is characterized by a lobular proliferation of poroid cells with less prominent anastomosing architecture; and syringoma, which features small ductal structures with tadpole-shaped morphology rather than an interconnected network. Additionally, reactive epithelial proliferations such as pseudoepitheliomatous hyperplasia may resemble ESFA, particularly in chronic inflammatory or ulcerated contexts, but do not

exhibit consistent eccrine ductal differentiation. It is also essential to exclude squamous cell carcinoma, especially in cases of reactive ESFA or lesions with cytologic atypia, due to the potential for coexistence and misinterpretation.



Figure 1 Localized, scaly, erythematous papules, nodules, and plaques on the left sole (A) and the right sole (B)

Case Report

A 48-year-old male patient from Thailand presented with a 13-year history of asymptomatic fissures affecting both heels. The symptoms spontaneously resolved on the left heel, but on the right sole, he developed a larger, solitary, asymptomatic erythematous hyperkeratotic plaque, which gradually extended to involve the plantar aspect of the right foot (Figure 1). There was no history of trauma, chronic ulceration, or any known underlying comorbidities. However, as the

lesion on the right heel became increasingly indurated, the patient began to experience difficulty to walk. Physical examination revealed a well-demarcated, asymptomatic erythematous hyperkeratotic plaque on the right sole without malodor. Hair, nails, teeth, and sweating were normal. No lymphadenopathy or other cutaneous or systemic abnormalities were noted.

A skin biopsy was performed on the lesion on his right heel, and the results revealed epidermal hyperplasia with elongation of the rete ridges and multiple anastomosing epithelial strands forming a lattice-like network attached to the epidermal undersurface. Eccrine ducts were identified within the epithelial structures, and a rich fibrovascular stroma was observed between the cords. There were no features of dysplasia or malignancy (Figure 2). The dermis has mild inflammation without any fibrosis, and there is a noticeable presence of lymphocytes and plasma cells. Additional immunohistochemical staining was not performed because of financial limitations; however, periodic acid–Schiff (PAS) staining demonstrated positive luminal material within the ductal structures (Figure 3).

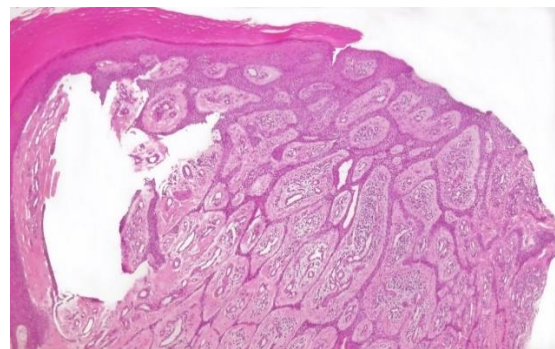


Figure 2 Histopathology revealed epidermal hyperplasia, characterized by the elongation of rete ridges and the formation of multiple anastomosing epithelial cords and strands, creating a lattice-like pattern that is connected to the undersurface of the epidermis. (H&E 200X)

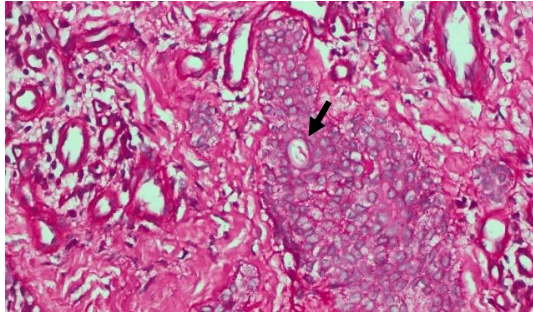


Figure 3 Periodic acid–Schiff (PAS) staining demonstrated positive luminal material within the ductal structures. (H&E, 400X, black arrow)

Discussion

ESFA was described in 1963 by Mascaro as a rare adnexal tumor deriving from the acrosyringial portion of the eccrine duct arising most often on the extremities of elderly individuals, it can occur in younger patients¹¹. Clinically, it might be misinterpreted as granulomatous infections or cancers like squamous cell carcinoma¹². Our patient presented with a solitary hyperkeratotic plaque

localized to the right sole, without abnormalities of the hair, nails, teeth, or sweating, and without features of ectodermal dysplasia. Clinically and histopathologically, this presentation is most consistent with solitary ESFA. In contrast to previously reported cases associated with hidrotic ectodermal dysplasia¹³, our patient exhibited no syndromic features, supporting classification as a sporadic solitary form. Notably, this case differs from previously reported solitary ESFA in its plantar location, plaque-like morphology rather than a nodular presentation, and prolonged disease duration prior to diagnosis. The histopathological differential diagnoses include fibroepithelioma of Pinkus¹⁴, eccrine poroma, well-differentiated squamous cell carcinoma¹¹, and syringoma. However, the presence of characteristic anastomosing epithelial cords forming a lattice-like pattern with identifiable eccrine ducts, along with the absence of cytologic atypia, supports the diagnosis of ESFA.

Table 1 Subtypes of eccrine syringofibroadenoma (ESFA) based on Starink's classification modified by French

Subtypes of (ESFA)	Solitary ESFA	Non-familial unilateral linear ESFA (nevroid ES)	Multiple ESFA with hidrotic ectodermal dysplasia	Familial ESFA with ophthalmologic abnormalities	Reactive ESFA
Clinical features	Single, often verrucous-like lesion	Unilaterally as multiple papules and plaques distributed symmetrically or linearly	Multiple erythematous papules	Nevroid pattern eccrine syringofibroadenomatosis	Pinkish papules to large verrucous plaques
Age	The middle aged or elderly	Adolescence or early adulthood	Adolescence or elderly	Early childhood	Elderly
Common site	Extremities	Extremities	Limbs and especially the palms and soles	Extremities	Extremities
Associated syndrome	No associated cutaneous anomalies	No associated cutaneous anomalies	Schöpf-Schulz-Passarge syndrome*, and Clouston's syndrome†	Multiple periocular and ocular abnormalities‡	Inflammatory dermatosis and tumors§

*Schöpf-Schulz-Passarge syndrome (SSPS) is an uncommon autosomal dominant form of ectodermal dysplasia characterized by hypodontia, sparse hair, dystrophic nails, palmoplantar keratoderma, and apocrine hidrocystoma located near the eyes and eyelid margins.

†Clouston's syndrome is an autosomal dominant form of ectodermal dysplasia that presents with dystrophic nails and sparse hair.

‡Some of these abnormalities, including cicatricial entropion, cicatricial ectropion, and meibomian gland absence, may have contributed to secondary corneal scarring and visual loss.

§Inflammatory dermatoses arising in the setting of chronic venous stasis, persistent foot ulcers, nail trauma, burn scars, leprosy, nevus sebaceus, enterostomy sites, bullous pemphigoid, epidermolysis bullosa, or erosive palmoplantar lichen planus.

The definitive diagnosis of ESFA relies on histopathological examination and exclusion of infectious or neoplastic conditions. In our case, the diagnosis was confirmed through a skin biopsy. It is a rare tumor of the acrosyringium. Given its malignant propensity, complete excision is the mainstay of treatment. However, in the present case, the patient declined surgical intervention. In situation where excision is not feasible due to extensive disease, anatomically challenging locations, or patient preference, close clinical monitoring with periodic biopsy is recommended. Therefore, cryotherapy with liquid nitrogen was selected as an alternative treatment, in combination with topical potent corticosteroids, emollients, and keratolytic agents¹⁵. Following treatment, partial clinical improvement was observed, with a reduction in lesion thickness and fissuring. Alternative therapeutic modalities, such as pulsed dye laser¹⁶, have been reported in recalcitrant cases of ESFA that were unresponsive to cryotherapy and electrodesiccation¹⁷.

Author Contributions

Conceptualization: [Warissanan T., Nior B]; Methodology: [Warissanan T.]; Formal analysis and investigation: [Warissanan T., Nior B.]; Writing – original draft preparation: [Warissanan T.]; Writing – review and editing: [Warissanan T., Nior B]; Supervision: [Nior B]. All authors have read and agreed to the published version of the manuscript.”

All authors have read and agreed to the published version of the manuscript.

Ethics Statements

Ethical review and approval were waived for this study due to the nature of case report. Written informed consent was obtained from the patient for the publication of potentially identifiable clinical images.

Funding

This research received no funding.

Acknowledgements

None

Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

AI Declaration

During the preparation of this work, the authors used Gemini 3.5 Flash-Lite improve language readability and grammar. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

References

1. Fouilloux B, Perrin C, Dutoit M, Cambazard F. Clear cell syringofibroadenoma (of Mascaró) of the nail. *Br J Dermatol* 2001;144:625-7.
2. Noguchi M, Akiyama M, Kawakami M, Nagashima T, Niizuma K, Matsuo I. Eccrine syringofibroadenoma developing in a sebaceous naevus. *Br J Dermatol* 2000;142:1050-1.
3. Singh N, Chandrashekar L, Shakthi P, Thappa DM, Badhe BA, Sylvia MT. Reactive Eccrine Syringofibroadenomatosis Presenting as Bilateral Plantar Hyperkeratosis. *Indian J Dermatol* 2015;60:403-5.
4. Temnithikul B, Jerasutus S, Sudtikoonaseth P, Voravutinon N, Kootiratrakarn T, Kattipathananpong P. Eccrine syringofibroadenoma (ESFA): a report of two cases. *Dermatol Pract Concept* 2016;6:5-8.
5. Andrade AC, Vieira DC, Harris OM, Pithon MM. Clouston syndrome associated with eccrine syringofibroadenoma. *An Bras Dermatol* 2014;89:504-6.
6. Ismail FF, McGrath J, Sinclair R, Schopf-Schulz-Passarge syndrome: a rare ectodermal dysplasia with a delayed diagnosis. *Int J Dermatol* 2020;59:257-8.
7. Chen S, Palay D, Templeton SF. Familial eccrine syringofibroadenomatosis with associated ophthalmologic abnormalities. *J Am Acad Dermatol* 1998;39:356-8.

8. Tedbirt B, Carvalho P, Boulard C, et al. Reactive Eccrine Syringofibroadenomatosis Associated With Venous Leg Ulcers: A Case Report and Literature Review. *Int J Low Extrem Wounds* 2023;22:135-8.
9. Bjarke T, Ternesten-Bratel A, Hedblad M, Rausing A. Carcinoma and eccrine syringofibroadenoma: a report of five cases. *J Cutan Pathol* 2003;30:382-92.
10. Poonawalla T, Xia L, Patten S, Stratman EJ. Clouston syndrome and eccrine syringofibroadenomas. *Am J Dermatopathol* 2009;31:157-61.
11. Bjarke T, Ternesten-Bratel A, Hedblad M, Rausing A. Carcinoma and eccrine syringofibroadenoma: a report of five cases. *J Cutan Pathol* 2003;30:382-92.
12. Heng YK, Pan JY, Tan SH, Tey HL. Eccrine syringofibroadenomatosis of the reactive subtype occurring in chronic poorly-controlled psoriasis. *Indian J Dermatol Venereol Leprol* 2014;80:534-6.
13. Hampton PJ, Angus B, Carmichael AJ. A case of Schöpf-Schulz-Passarge syndrome. *Clin Exp Dermatol* 2005;30:528-30.
14. Schadt CR, Boyd AS. Eccrine syringofibroadenoma with co-existent squamous cell carcinoma. *J Cutan Pathol* 2007;34:71-4.
15. Sirikham T, Rojhirunsakool S, Vachiramon V. Reactive Eccrine Syringofibroadenoma Associated with Neuropathy, Venous Stasis, and Diabetic Foot Ulcer. *Case Rep Dermatol* 2016;8:124-9.
16. Tey HL, Chong WS, Wong SN. Leprosy-associated eccrine syringofibroadenoma of Mascaro. *Clin Exp Dermatol* 2007;32:533-5.
17. Chukwuma O, Walker A, Motaparathi K, Montanez-Wiscovich M. Recalcitrant erosive plaques on the palms and soles: A rare manifestation of eccrine syringofibroadenoma. *JAAD Case Rep* 2020;6:590-2.