

# FUTURE OF PEDIATRICS TALKS!

A VIRTUAL SUMMER SERIES

Pediatric Health Network  
 Children's National.



# A few notes about today's Webinar

- All lines are muted throughout the webinar.
- Please use the Q&A box to ask questions or make comments.
- Today's Webinar recording and slides will be posted to the PHN website following the presentation. You can find past FOP presentations on our website at <https://pediatrichealthnetwork.org/future-of-pediatrics/>

# Speakers



Amaziah Coleman, MD



Claire Boogaard, MD



Anna Kirkorian, MD

## No conflicts to disclose:

- No financial or business interest, arrangement or affiliation that could be perceived as a real or apparent conflict of interest in the subject (content) of their presentation.
- No unapproved or investigational use of any drugs, commercial products or devices.

# Upcoming FOP Talks!

DATE	TOPIC	SPEAKER
August 12	Obstructive Sleep Apnea: Primary Care Management and When to Refer	Claire Lawlor, MD
	Neuropsychological Evaluations: What are they, when are they needed and how can I get them for my patients?	Kristina Hardy, PhD Laura Kenealy, PhD
August 26	Meeting Teens Where They Are: the Contraception Discussion	Brooke Bokor, MD, MPH Natasha Ramsey, MD
	School's Out: Supporting School Attendance and Distance Learning Engagement	Asad Bandealy, MD Heidi Schumacher, MD

# Children's National Return to School Webinar Series

## Dr. Bear Is In: What Do the Tests Really Mean?

On **Friday, July 31, 2020 at 11:30 a.m.**, Children's National experts will discuss the tests available, how reliable they are, how to interpret the tests and what next steps are after results come back.

Meghan Delaney, D.O., Chief of Pediatric Laboratory Medicine will review the latest information on COVID-19 testing and answer your questions about how testing might play a role in the return to school.

**Register Here:**

<https://childrensnational.org/healthcare-providers/refer-a-patient/covid/covid-19-webinars>



# Managing ADHD, Anxiety and Depression: A PHN ECHO

PHN in partnership with DC MAP is launching our inaugural Project ECHO® Behavioral Health collaborative on **September 2, 2020**. During the 6 month project:

- Primary care providers will share cases from their practices to review and discuss with peers and behavioral health specialists.
- Specialists will guide primary care providers through: assessment, treatment and management of ADHD, anxiety and depression. They will also be addressing management and changes to caring for these patients during the pandemic.
- MOC part 4 and CME credit will be offered.

**Register online at**  
**<https://pediatrichealthnetwork.org/project-echo-information-sessions/>**

# PHN 2020 Annual Report Available Now!

Community matters. PHN's 2020 annual report highlights the network's commitment to community and the tremendous contributions of our physicians and care teams over the past year. The report summarizes key achievements pertaining to:

- Network growth, leadership and governance
- Quality improvement and information technology
- Network management and finance
- Value-added services, including the vaccine buying group and eCW EHR and data sharing
- COVID-19 response and recovery



To view the full report visit  
<https://annualreport.pediatrichealthnetwork.org/>

# COVID Toes and Other Cutaneous Manifestations of COVID-19



A. Yasmine Kirkorian MD

Interim Chief, Division of Dermatology, Children's National Hospital  
Associate Professor of Dermatology & Pediatrics, GW School of Medicine & Health Sciences

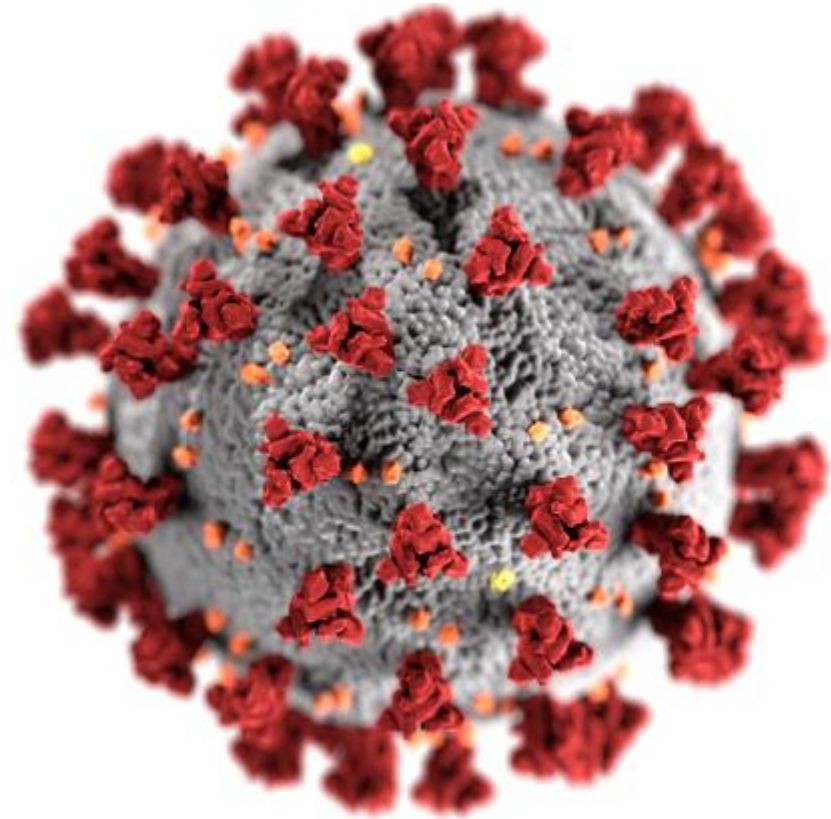


# Learning Objectives

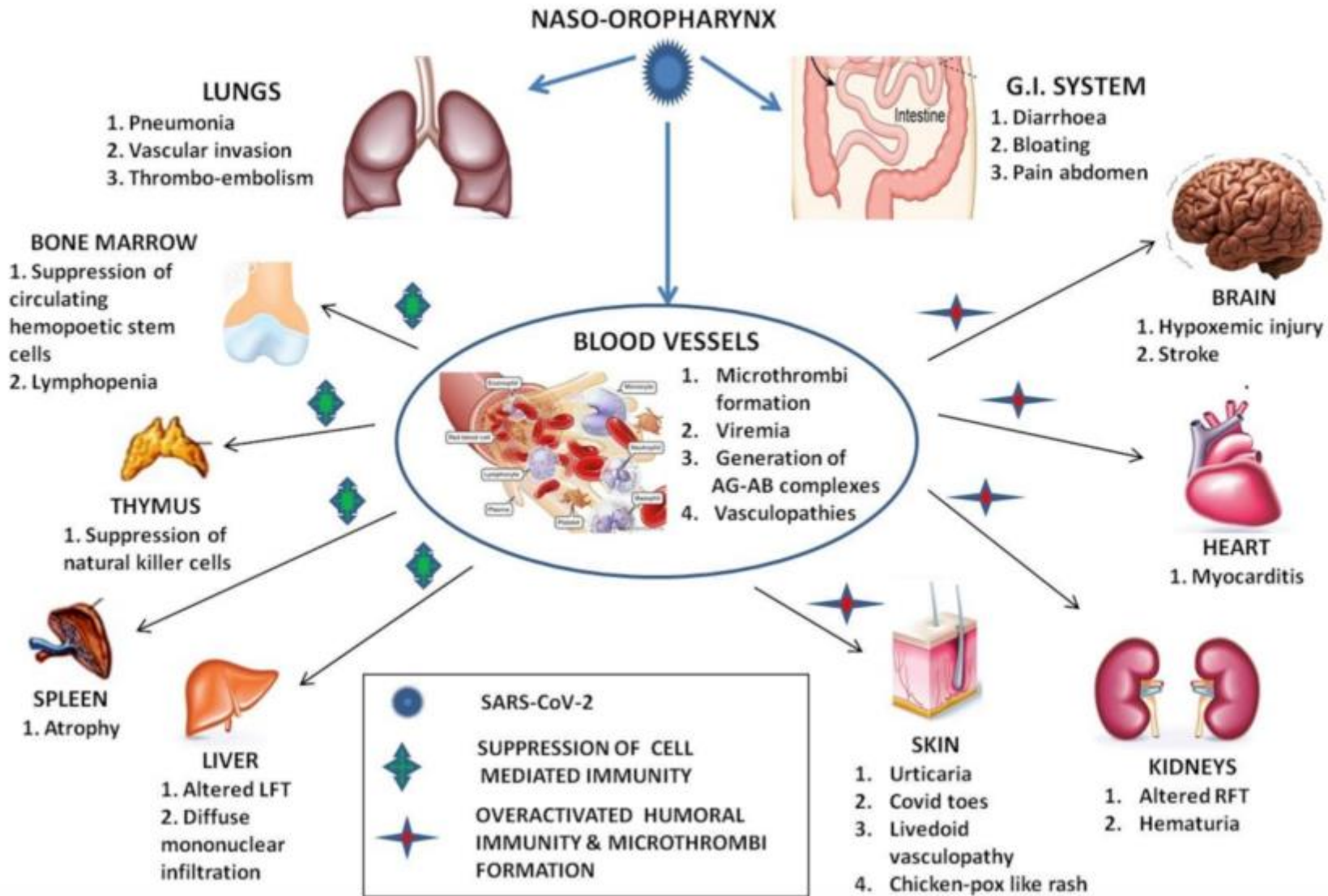
- (1) To identify cutaneous manifestations of COVID-19
- (2) To implement treatment or referral for patients with COVID-19 rashes

# COVID-19 Background

- Severe acute respiratory distress syndrome-associated coronavirus-2 (**SARS-CoV-2**) → Coronavirus disease 2019 (**COVID-19**)
- Initially identified in Wuhan, Hubei, China in December 2019
- WHO declares pandemic in early March 2020
- As of 7/27/2020--> 16,296,635 cases, 649,662 deaths



**SARS-CoV-2: Disarming the cell mediated immunity and eventually causing cytokine storm by microthrombi formation, viral load and overactive humoral immunity**



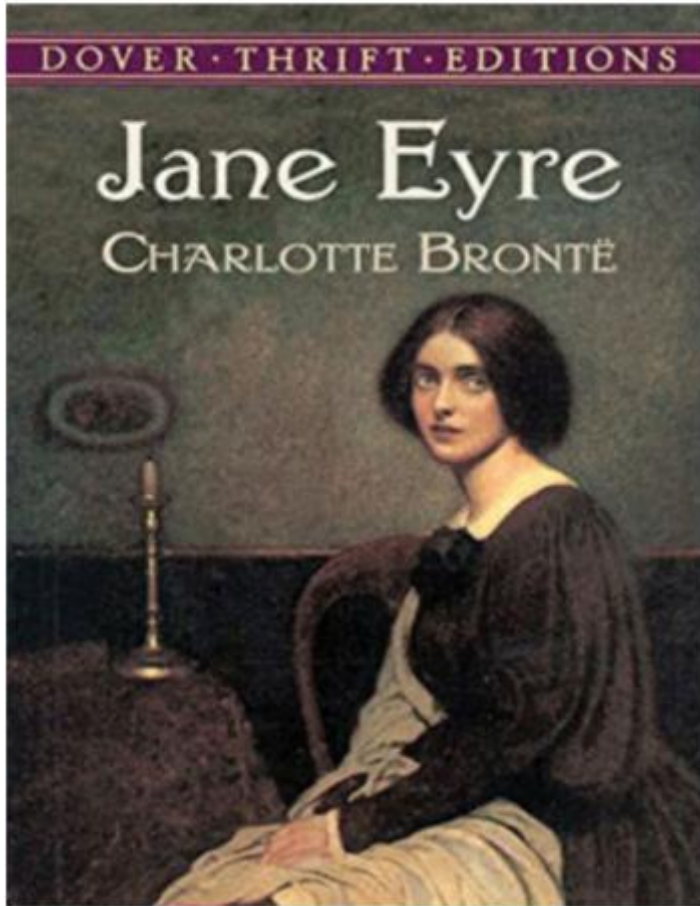
# COVID-19 Dermatology Registry

([www.aad.org/covidregistry](http://www.aad.org/covidregistry))

716 cases entered from 39 countries

- Morbilliform
- **Chilblains/Pernio-like (“COVID Toes”)- Healthy patients**
- Urticarial
- Macular erythema
- Vesicular
- Papulosquamous
- **Retiform purpura- Severely ill, hospitalized patients**

# What are chilblains?



Chilblains, 1847 (Smith, Elder & Co)



Chilblains, 2020 (Tik Tok)

# COVID Specific Rashes



# COVID Toes

- Chilblains/Perniosis
- More common in children/young adults
- Convalescent phenomenon
- Usually COVID PCR negative<sup>1</sup>
- **MILD DISEASE**
- Rx: Supportive Care









Acral Erythema Pattern



Dactylitis Pattern



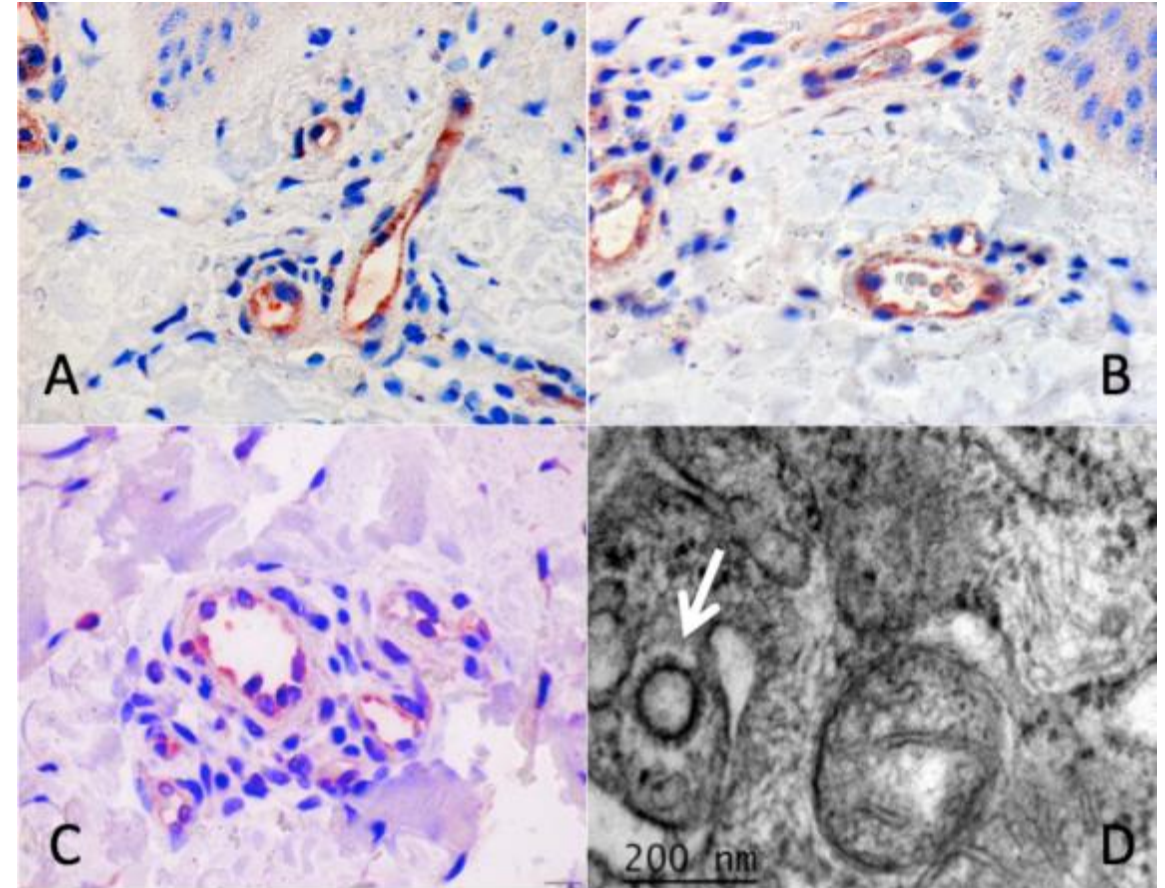
Mixed Pattern



Maculopapular Purpuric Pattern

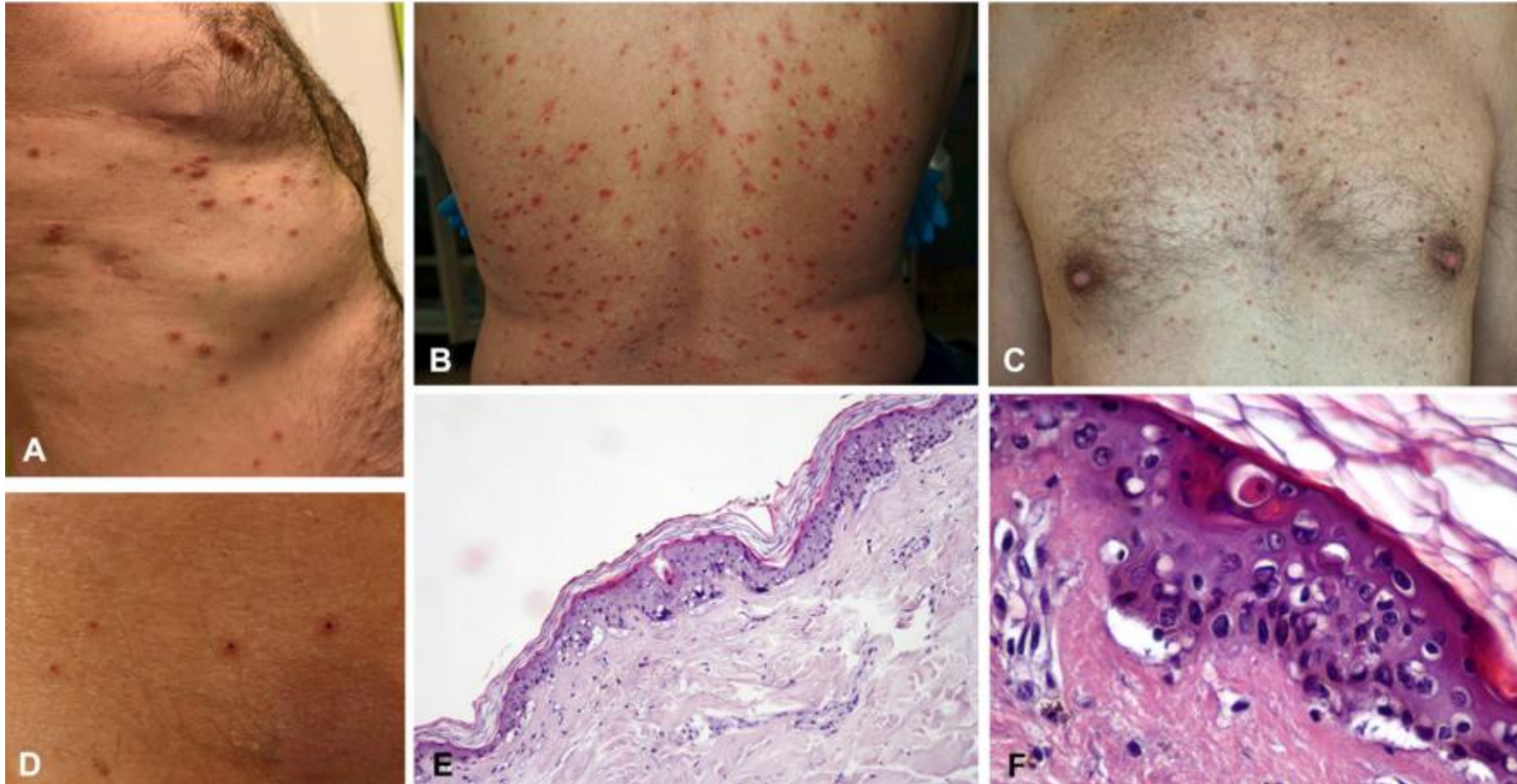
# COVID Toes: Pathogenesis

- Immunohistochemistry and electron microscopy with COVID-19 localized to the endothelium
- Inflammatory response similar to that seen in typical perniosis
- NOT the same as acral ischemia noted in severe cases of critically ill COVID19 patients





# Vesiculobullous/Varicella-like Eruption



# COVID-O: Livedo reticularis/retiform purpura in COVID-19



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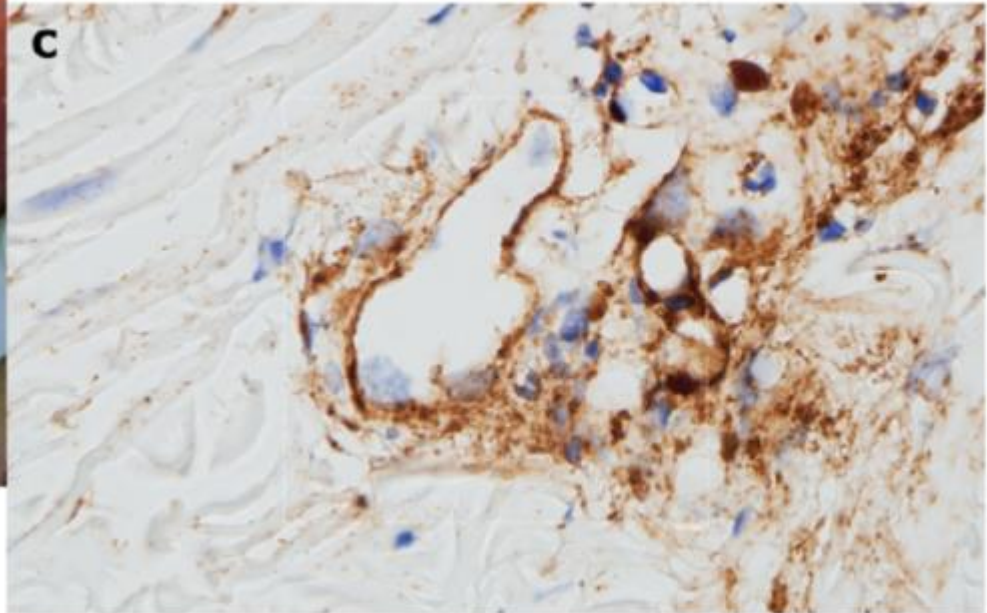
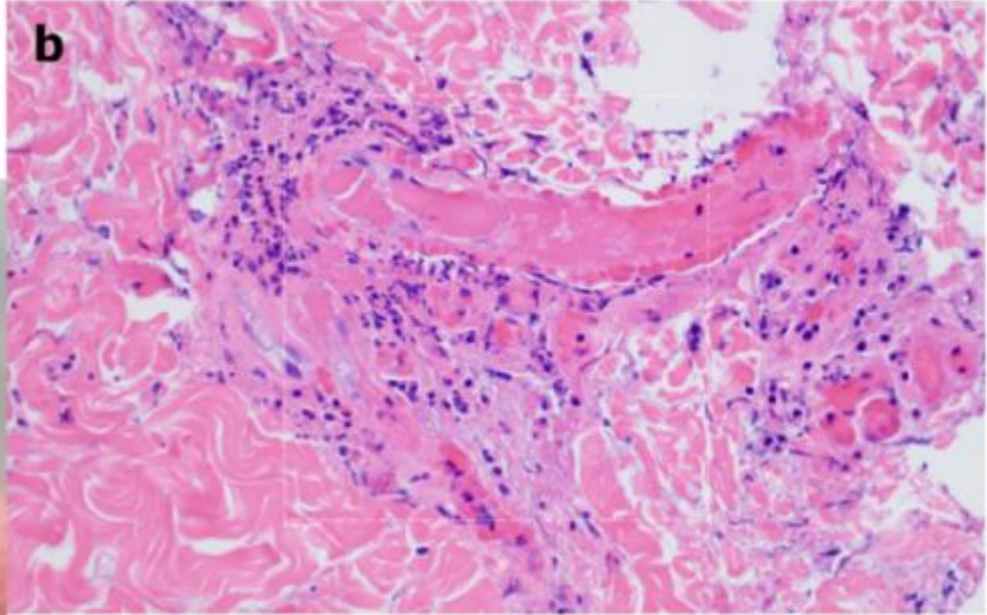


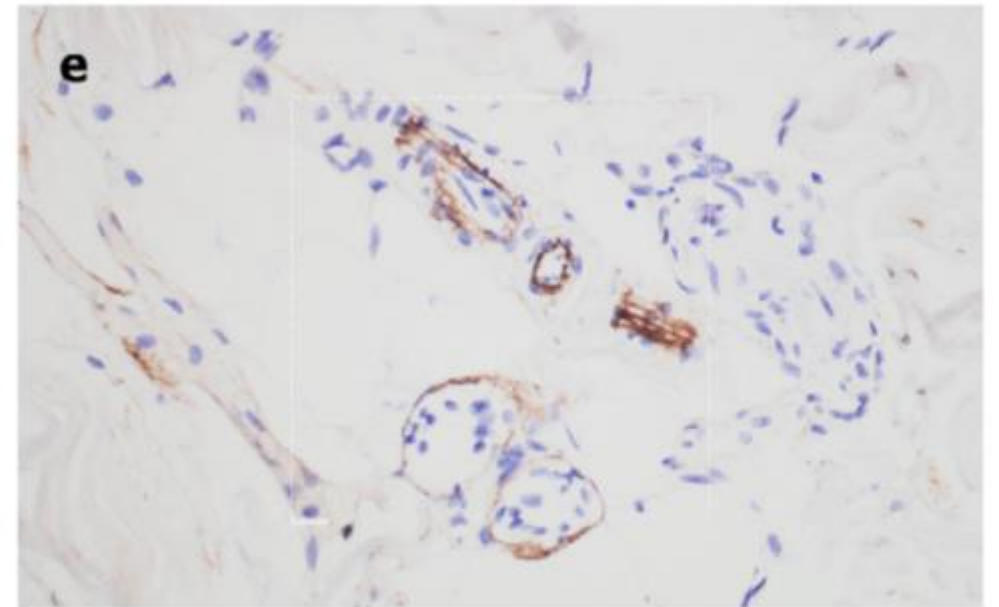
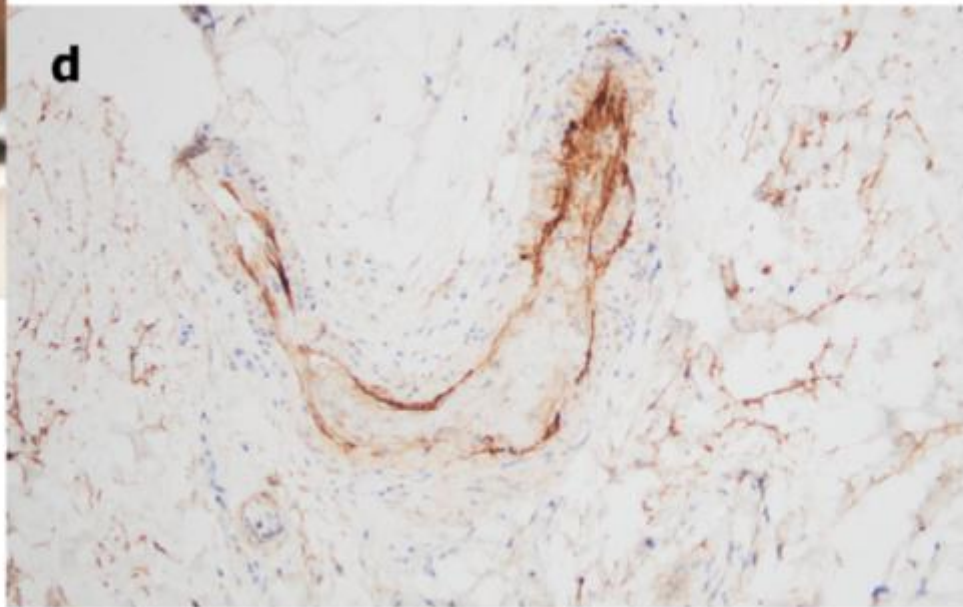
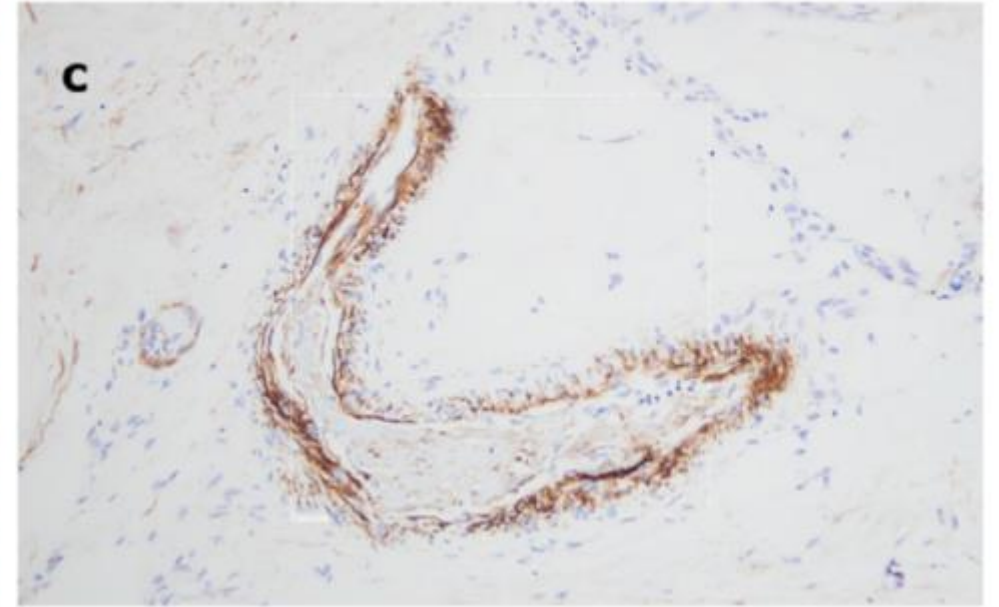
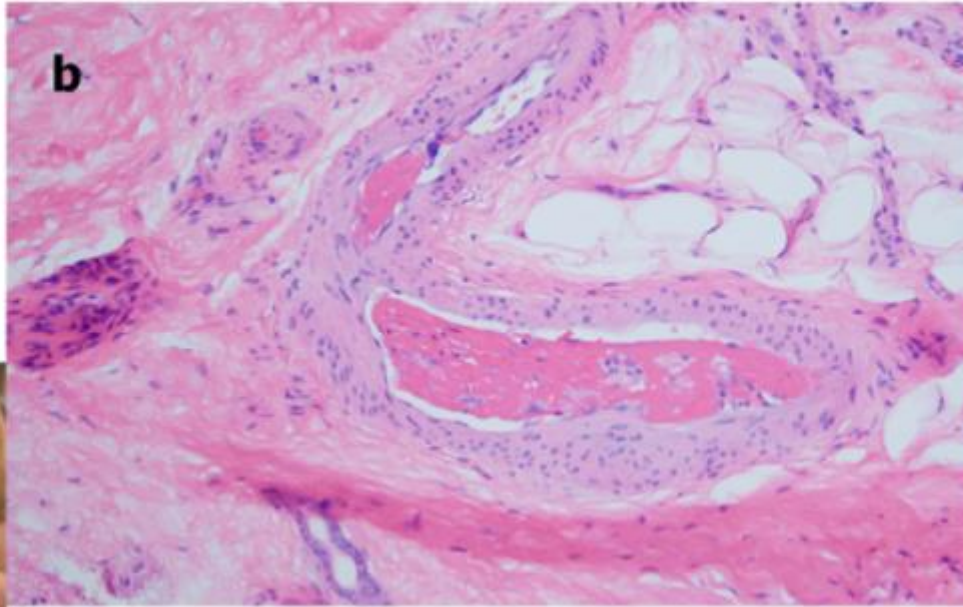
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# Retiform purpura: a sign of microvascular occlusion/thrombosis

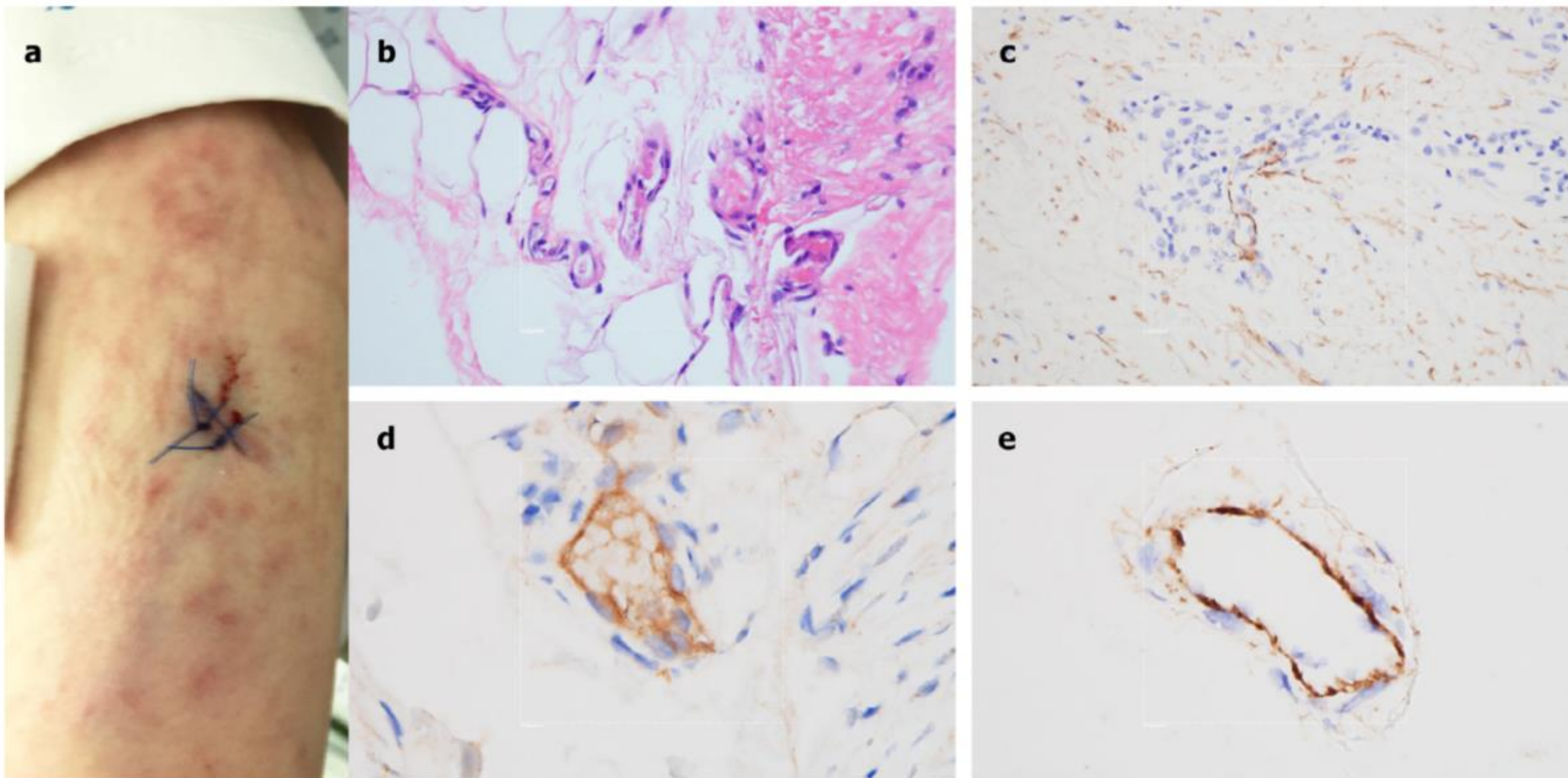






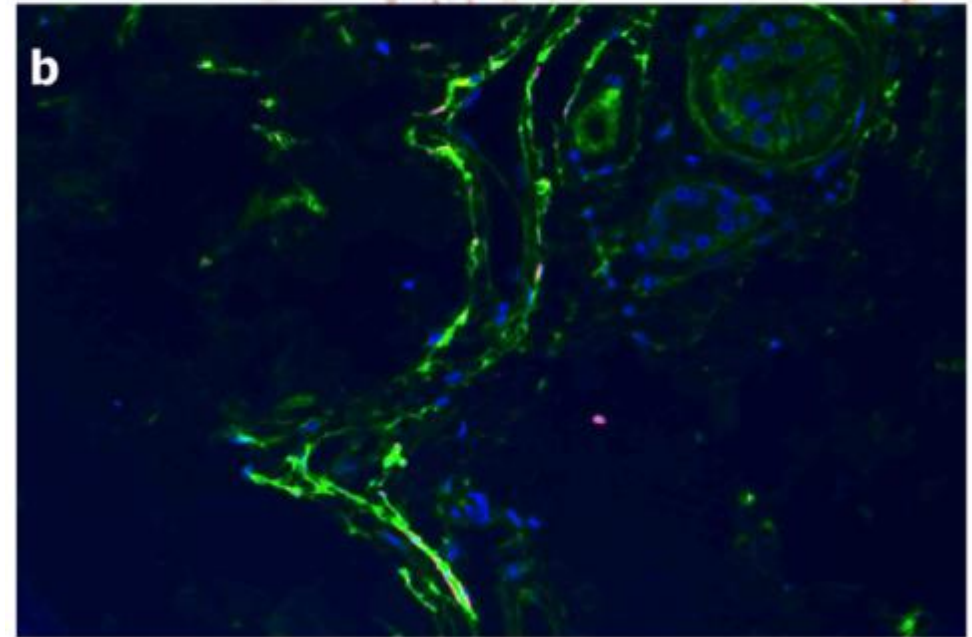
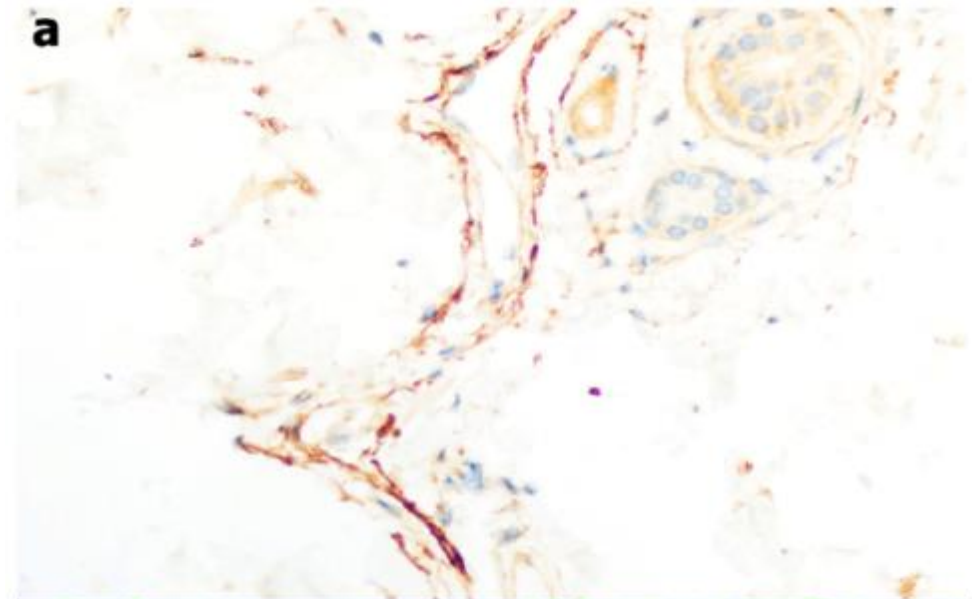
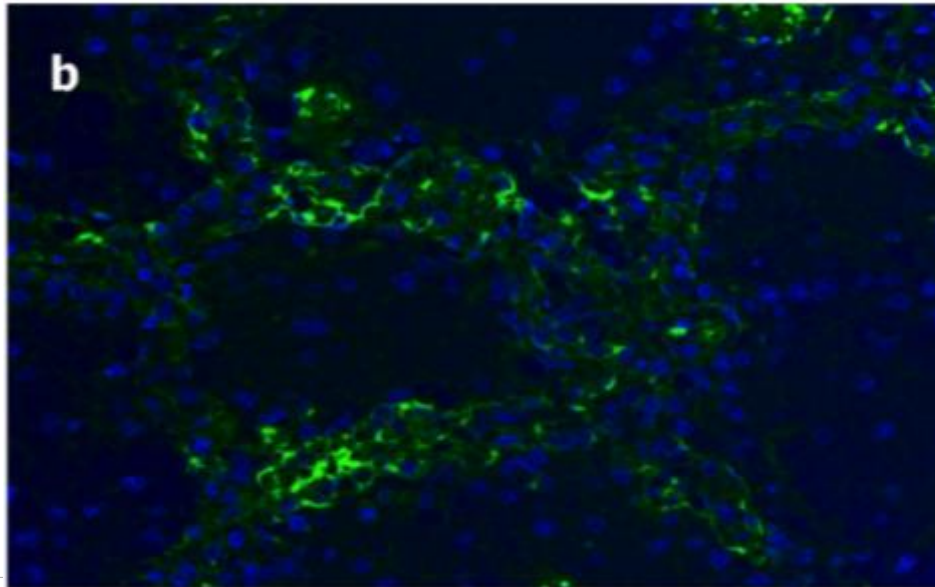
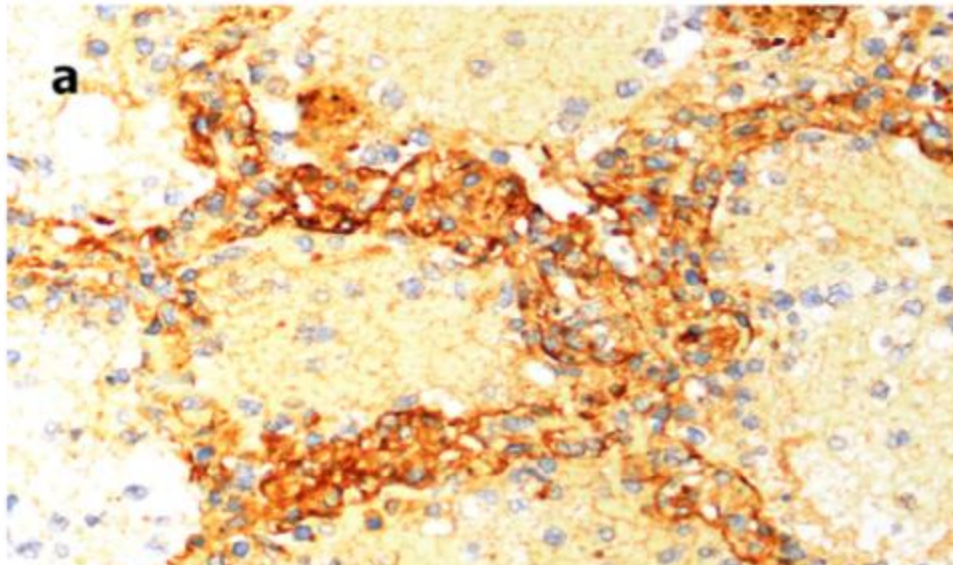






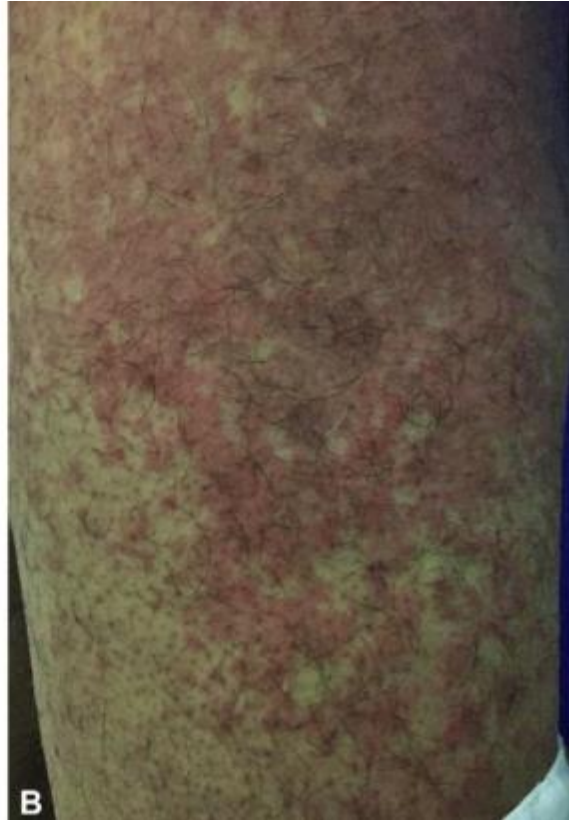


# C4d & SARS-CoV2 spike glycoprotein in lungs & skin tissue



# Non-Specific COVID Rashes

# COVID-19 Urticaria and Angioedema



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# Pityriasis Rosea

- Typically caused by HHV6/7
- Most common in the Spring and Fall
- Herald patch followed by eruption of oval-shaped scaly plaques on Langer's lines ("Fir tree distribution")
- Inverse PR common in patients of color

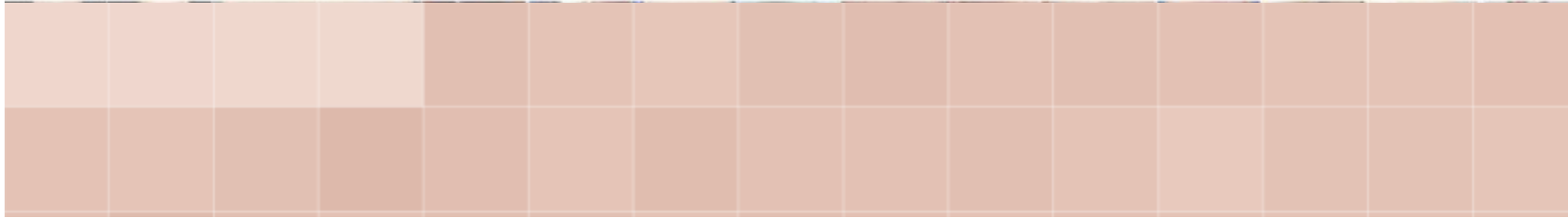




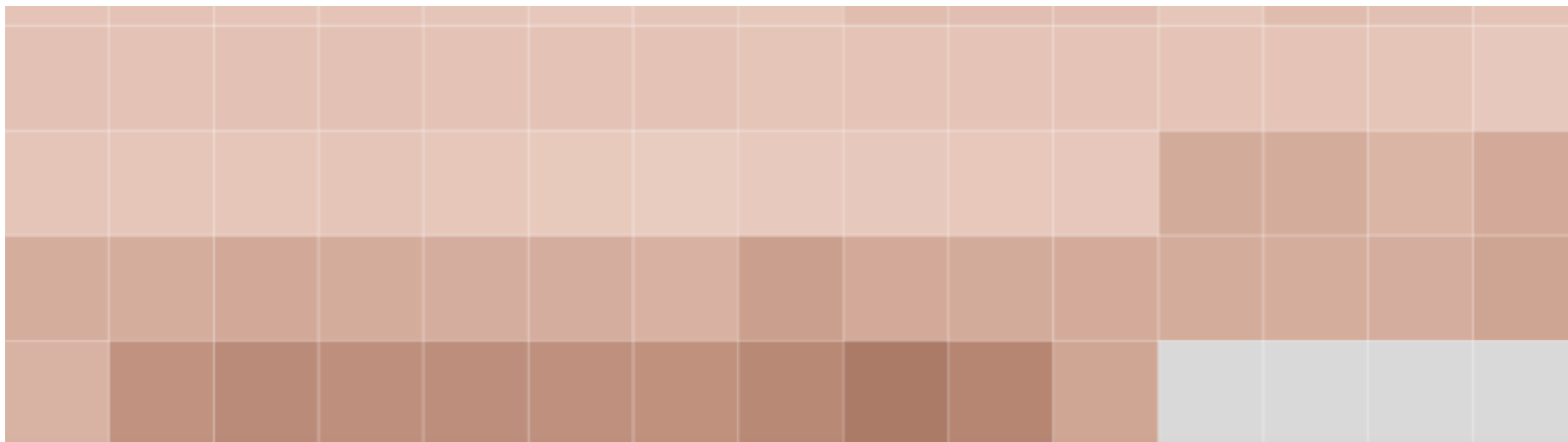
# Erythema Nodosum



# COVID rashes in skin of color: Why haven't I shown you any?



## Absence of Skin of Colour Images in Publications of COVID-19 Skin Manifestations



# COVID-Adjacent Skin Disease

# Telogen Effluvium

- TE: synchronized hair shedding that occurs 3 months post a systemic stress (illness, crash diet, psychological stress)
- Increased rates of TE post COVID
- Rx: minoxidil, spironolactone, platelet-rich plasma, **time**





# PPE-Induced Skin Eruptions in the era of COVID19

- Healthcare workers presenting with erosions especially on nasal bridge, zygoma from masks
- Treatment: change mask style
  - PAPR? Facial Shield?
  - Duoderm Extra Thin to protect areas of pressure



# “Maskne”

- True comedonal/inflammatory acne vs. perioral dermatitis or rosacea occurring under masks

## Treatment:

- Use cotton masks
- Avoid makeup under mask
- Sulfur-based facewash
- Topical retinoid if comedonal
- Cleanse/change masks regularly





# Questions?

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