



COVID-19 Digest Issue 20

September 8, 2020

CLINICAL PEARL

- **COVID toes: Acral purpuric lesions identical to chilblains have been reported in many children and young adults during the COVID-19 pandemic. Also known as *pernio-like*, *pseudo-chilblain*, *acute acro-ischemia*, and "COVID toes," the pattern of acral lesions is described as erythematous to purple purpuric macules, papules, and/or vesicles.** Several pathogenetic hypotheses have been proposed, including coagulation anomalies, interferon release and external factors. **Despite the high number of cases, a definite causative role for SARS-CoV-2 has not been proven.** In fact, there's **considerable controversy over whether "COVID toes" are truly caused by COVID-19.**

[Herman et al](#) examined 31 patients with acral lesions and found a relatively low mean body mass index, a known predisposing factor for perniosis. None of the patients tested positive for COVID-19 by nasopharyngeal swab and reverse transcriptase–polymerase chain reaction (RT-PCR) for SARS-CoV-2, nor were SARS-CoV-2–specific immunoglobulin (Ig) M or IgG antibodies detected. [Roca-Ginés et al](#) evaluated 20 children and adolescents with acral purpuric changes. No patient had COVID-19 symptoms or evidence of infection according to results of nasopharyngeal swab and RT-PCR or viral serologic testing. In both studies, extensive testing failed to identify other risk factors for these acral lesions, and a subset of patients had biopsy results consistent with perniosis. Both author groups proposed that lifestyle changes imposed by the quarantine, such as walking barefoot in unheated homes, inactivity, and time spent in sedentary positions, explained these findings.

However, a [study published in the British Journal of Dermatology](#) provides evidence in support of the link. The authors examined skin biopsies from seven pediatric patients presenting with chilblains. Immunohistochemistry for SARS-CoV-2 was performed in all cases and electron microscopy in one. Histopathology showed variable degrees of lymphocytic vasculitis ranging from endothelial swelling and endotheliitis to fibrinoid necrosis and thrombosis. Coronavirus particles were found in the cytoplasm of endothelial cells on electron microscopy. Although the clinical and histopathological features were similar to other forms of chilblains, **the presence of viral particles in the endothelium and the histological evidence of vascular damage support a causal relation of the lesions with SARS-CoV-2. Endothelial damage induced by the virus could be the key mechanism in the pathogenesis of COVID-19 chilblains** and perhaps also in the patients severely affected by COVID-19 who present with features of microangiopathic damage.

PUBLIC HEALTH UPDATES

- The American Academy of Pediatrics updated its [Children and COVID-19: State-Level Data Report](#) aiming to collect and share all publicly available data from states on child COVID-19 cases.
- The US Department of Health and Human Services (HHS) announced that [Trump Administration Will Deploy 150 Million Rapid Tests in 2020](#)
- [Abbott released a mobile application, NAVICA, pairing with its portable rapid antigen test, BinaxNOW](#)

GUIDELINES/GUIDANCE

- Infectious Diseases Society of America: [Guidelines on the Treatment and Management of Patients with COVID-19](#)
- WHO Guidance on Steroid Use: [Corticosteroids for COVID-19](#)
- CDC Travel Guidance: [Travel during the COVID-19 Pandemic](#)





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RESOURCES

- Infectious Diseases Society of America (IDSA) COVID-19 Podcast
 - [Dr. Anthony Fauci Shares ID Insights on COVID-19](#)
- CDC Emerging Infectious Diseases Podcasts
 - [Neurologic Complications Associated with Coronavirus](#)
 - [SARS-CoV 2 in Children and Teenagers](#)
 - [SARS-CoV-2 in Aerosol Suspension](#)
- Policy Lab
 - [Evidence and Considerations for School Reopenings](#)
- The National Academies of Sciences, Engineering and Medicine
 - [Airborne Transmission of SARS-CoV-2: A Virtual Workshop](#)

ACADEMIC/RESEARCH PAPERS

- *Clinical Infectious Diseases*
 - [Patient Characteristics and Outcomes of 11,721 Patients with COVID19 Hospitalized Across the United States](#)
 - [COVID-19 re-infection by a phylogenetically distinct SARS-coronavirus-2 strain confirmed by whole genome sequencing](#)
 - [Low risk of COVID-19 among patients exposed to infected healthcare workers](#)
 - [COVID-19 patients in earlier stages exhaled millions of SARS-CoV-2 per hour](#)
 - [SARS-CoV-2 RNA in serum as predictor of severe outcome in COVID-19: a retrospective cohort study](#)
- *Journal of Infection*
 - [Post-discharge persistent symptoms and health-related quality of life after hospitalization for COVID-19](#)
- *The Journal of Infectious Diseases*
 - [Cluster of SARS-CoV-2 infections linked to music clubs in Osaka, Japan: asymptotically infected persons can transmit the virus as soon as 2 days after infection](#)
- *New England Journal of Medicine*
 - [SARS-CoV-2 Infection among Travelers Returning from Wuhan, China](#)
- *medRxiv*
 - [Test sensitivity is secondary to frequency and turnaround time for COVID-19 surveillance](#)
 - [Phylogenetic analysis of SARS-CoV-2 in the Boston area highlights the role of recurrent importation and superspreading events](#)
 - [Neutralizing antibodies correlate with protection from SARS-CoV-2 in humans during a fishery vessel outbreak with high attack rate](#)
 - [In-flight Transmission Cluster of COVID-19: A Retrospective Case Series](#)
- *Emerging Infectious Diseases*
 - [Asymptomatic Transmission of SARS-CoV-2 on Evacuation Flight](#)
- *JAMA*
 - [Assessment of SARS-CoV-2 Transmission on an International Flight and Among a Tourist Group](#)
 - [Epidemiology of COVID-19 Among Incarcerated Individuals and Staff in Massachusetts Jails and Prisons](#)
 - [Effect of Hydrocortisone on 21-Day Mortality or Respiratory Support Among Critically Ill Patients With COVID-19 - A Randomized Clinical Trial](#)





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- [Effect of Hydrocortisone on Mortality and Organ Support in Patients With Severe COVID-19 - The REMAP-CAP COVID-19 Corticosteroid Domain Randomized Clinical Trial](#)
- [Effect of Dexamethasone on Days Alive and Ventilator-Free in Patients With Moderate or Severe Acute Respiratory Distress Syndrome and COVID-19 - The CoDEX Randomized Clinical Trial](#)
- [Association Between Administration of Systemic Corticosteroids and Mortality Among Critically Ill Patients With COVID-19 - A Meta-analysis](#)
- *Journal of Medical Virology*
 - [Differentiation of COVID-19 from seasonal influenza: a multicenter comparative study](#)
- *Nature*
 - [The coronavirus is most deadly if you are older and male — new data reveal the risks](#)
 - [Why the United States is having a coronavirus data crisis](#)
- *Nature Medicine*
 - [An inflammatory cytokine signature predicts COVID-19 severity and survival](#)
- *BMJ*
 - [Two metres or one: what is the evidence for physical distancing in covid-19?](#)
 - [Clinical characteristics of children and young people admitted to hospital with covid-19 in United Kingdom: prospective multicentre observational cohort study](#)
- *Annals of Internal Medicine*
 - [Salivary Detection of COVID-19](#)
 - [Risk for Severe COVID-19 Illness Among Teachers and Adults Living With School-Aged Children](#)
- *JAMA Pediatrics*
 - [Prevalence of SARS-CoV-2 Infection in Children Without Symptoms of Coronavirus Disease 2019](#)
- *JAMA Internal Medicine*
 - [Community Outbreak Investigation of SARS-CoV-2 Transmission Among Bus Riders in Eastern China](#)
- *JAMA Ophthalmology*
 - [Documenting Course of 2 Cases of Conjunctivitis in Mobile Hospitals During the Coronavirus Disease 2019 Pandemic](#)
- *European Respiratory Journal*
 - [Characteristics and outcomes of asthmatic patients with COVID-19 pneumonia who require hospitalisation](#)
- *The Journal of Allergy and Clinical Immunology*
 - [Allergic disorders and susceptibility to and severity of COVID-19: A nationwide cohort study](#)
- *Journal of the American College of Cardiology*
 - [Anticoagulation, Mortality, Bleeding and Pathology Among Patients Hospitalized with COVID-19: A Single Health System Study](#)
- *Obesity Reviews*
 - [Individuals with obesity and COVID-19: A global perspective on the epidemiology and biological relationships](#)

MMWR

- [Seroprevalence of SARS-CoV-2 Among Frontline Health Care Personnel in a Multistate Hospital Network — 13 Academic Medical Centers, April–June 2020](#)





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HOT OFF THE (LAY) PRESS

- *The New York Times*
 - [‘Here We Go Again’: A Second Virus Wave Grips Spain](#)
 - [First Documented Coronavirus Reinfection Reported in Hong Kong](#)
 - [U.S. Coronavirus Cases Top 6 Million](#)
 - [U.S. Coronavirus Rates Are Rising Fast Among Children](#)
 - [America’s Death Gap](#)
 - [Your Coronavirus Test Is Positive. Maybe It Shouldn’t Be.](#)
 - [Steroids Can Be Lifesaving for Covid-19 Patients, Scientists Report](#)
 - [The C.D.C. told states to prepare for a possible coronavirus vaccine by early November, raising concerns over politicized timing.](#)
 - [What We Know About the C.D.C.’s Covid-19 Vaccine Plans](#)
 - [U.S. Doctors Group Calls for Transparency in COVID-19 Vaccine Development](#)
 - [Trump Administration Says Some Coronavirus Tests Can Bypass F.D.A. Scrutiny](#)
 - [F.D.A. Allows Expanded Use of Plasma to Treat Coronavirus Patients](#)
 - [C.D.C. Now Says People Without Covid-19 Symptoms Do Not Need Testing](#)
- *American Medical Association*
 - [AMA statement on CDC changes to COVID-19 testing guidance](#)
- *Infectious Diseases Society of America*
 - [IDSA/HIVMA Statement on Changes to CDC Guidance](#)
- *The Hill*
 - [CDC director clarifies change in coronavirus testing guidelines after backlash](#)
 - [States say FEMA may no longer pay for protective gear](#)
- *Science Speaks: Global ID News*
 - [Phase 3 vaccine trials in the U.S. July 27-Aug. 20/21: A timeline](#)
- *Moderna*
 - [mRNA-1273 Vaccine Against COVID-19 Phase 1 Interim Analysis of Older Adult Cohorts \(ages 56-70 and 71+\)](#)
- *The Washington Post*
 - [China says it began public use of coronavirus vaccine a month ago, bypassing clinical trials](#)
 - [New Trump pandemic adviser pushes controversial ‘herd immunity’ strategy, worrying public health officials](#)
 - [Genetic data show how a single superspreading event sent coronavirus across Massachusetts — and the nation](#)
 - [The University of Arizona says it caught a dorm’s covid-19 outbreak before it started. Its secret weapon: Poop.](#)
 - [What to know about getting tested for the coronavirus to travel](#)
 - [American will be the first airline to use a coating that kills coronavirus up to seven days](#)
- *National Geographic*
 - [How clean is the air on planes?](#)
- *AP News*
 - [Rapid \\$5 coronavirus test doesn’t need specialty equipment](#)
- *The New Yorker*
 - [We Can Solve the Coronavirus-Test Mess Now—If We Want To](#)
 - [Teachers in Texas Are Fighting for Their Lives](#)
- *The Telegraph*





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- [Revealed: the long-term severe effects of Covid-19 that could go on for months](#)
- *The Wall Street Journal*
 - [As Child Covid Cases Rise, Doctors Watch for Potential Long-Term Effects](#)
- *CNN*
 - [Fauci: We "certainly don't know the whole story" about Covid-19](#)
 - [Covid-19 cases among US children increased by 21% in just two weeks](#)
 - [Brazil reports more than 47,000 new Covid-19 cases](#)
- *NPR/KQED*
 - [Opinion: Public Health Leaders Deserve More Respect](#)
 - [U.S. Won't Join WHO-Led Coronavirus Vaccine Effort, White House Says](#)
- *The Mercury News*
 - [Coronavirus symptoms can last much longer than initially thought, experts say](#)
 - [Coronavirus: Bay Area facing a 'delicate threshold' as Alameda County reports most deaths yet](#)
 - [Santa Clara County to keep indoor dining, theaters shut even if state allows reopening](#)
- *The Los Angeles Times*
 - [Could the coronavirus make for a lighter flu season?](#)
 - [Following test results dust-up, California to unveil a new COVID-19 reporting system in October](#)
- *SF Gate*
 - [Is the case criteria for California's new color-coded reopening plan too harsh?](#)
- *San Francisco Chronicle*
 - [Here's what California's new color-coded reopening rules mean for Bay Area counties](#)

EPIDEMIOLOGY UPDATES

- **US Leads the World in Confirmed COVID-19 Cases** per [Johns Hopkins University Center for Systems Science and Engineering Dashboard Website](#)
- [Johns Hopkins COVID-19 in the USA](#) – daily summary of key data on COVID-19 in the U.S.
- **California COVID-19 by the numbers** are available on the [CDPH Website](#) and the [NYT Map and Table](#) (includes data by county)
 - **California [COVID-19 Statewide Update](#) as of September 8, 2020**
- [San Mateo County COVID-19 Dashboard](#)
- [Santa Clara County COVID-19 Dashboard](#)

ADDITIONAL COVID-19 RESOURCES

- [Palo Alto Online tracking the coronavirus in San Mateo and Santa Clara counties](#)
- [California COVID-19 Data and Tools](#)
- [CDPH COVID-19 Assessment and Modeling Tool](#)
- [California Department of Corrections and Rehabilitations Population COVID-19 Tracking Dashboards](#)
- [COVID-19 Nursing Home Data](#)
- [CDC Interactive Serology Dashboard for Commercial Laboratory Surveys](#)
- [CDC COVID-19 Forecasts: Deaths](#)
- [HHS Coronavirus Data Hub](#)
- [Quick COVID-19 Severity Index \(qCSI\) Calculator](#)
- [Cleveland Clinic - Predict Hospitalization Risk for COVID-19 Positive](#)
- [UCSF – Pediatric COVID-19 Risk Calculator](#)

