

A long story of evolving skin lesions

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Conflicts of interest

- None

Our patient

- Currently a 73 year old female who has hypertension, vitiligo and hypothyroidism
- December 2019 she developed a swelling over the spine that was tender but more of a lump – a “hotdog”
- Sept 2020 she developed erythema and violaceous discoloration of the dorsum of both feet
- Except for paresthesia in the feet, she has no other symptoms







Labs in 2021

- ESR 50 and CRP 15 mg/L
- ANA +1:320 with neg ENA
- SPEP normal
- ANCA, C3, C4, CK, Cryos, CCP, RF, Hep A, B and C, QuantiFERON, ACE
- CT CAP negative
- MRI of thoracic spine showed no bony abnormalities

Thoughts?

She is sent to our dermatology/rheumatology clinic

- 2 biopsies done at DH prior to her dermatology/rheumatology visit (6/23/2021) showed
 - Inflammatory/sclerosing disease with a dermal interstitial cellularity resembling an interstitial granulomatous process like GA or necrobiosis lipoidica
- Seen in dermatology/rheumatology clinic in July 2021





Her exam also showed olecranon nodules



Thoughts now?

The dermat/rheum thoughts

- Morphea or scleroderma
 - Lipodermatosclerosis
 - Fasciitis
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- But what about the nodules?

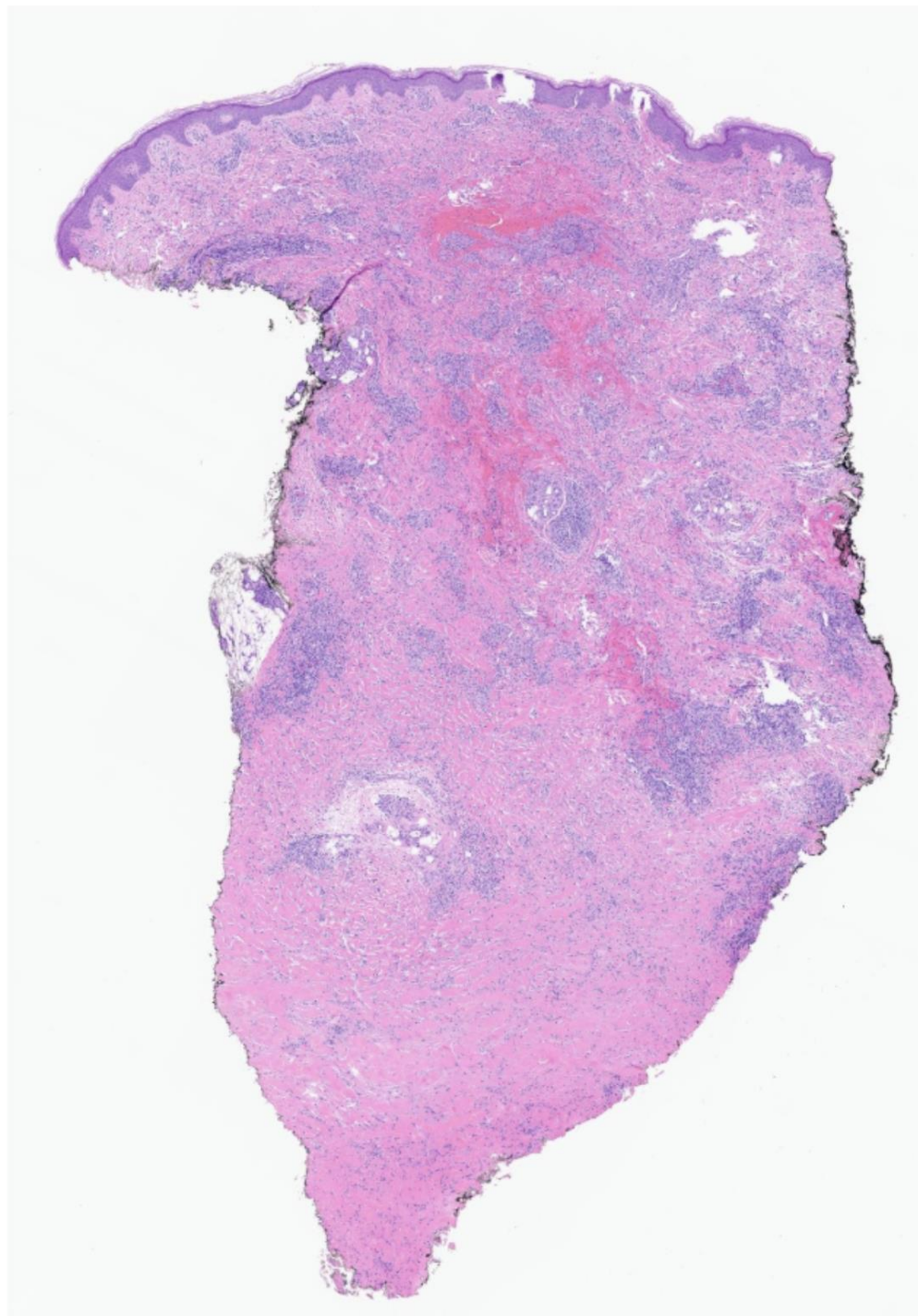
Ultimately had deep biopsy of the leg and of the nodules (11/2022!)

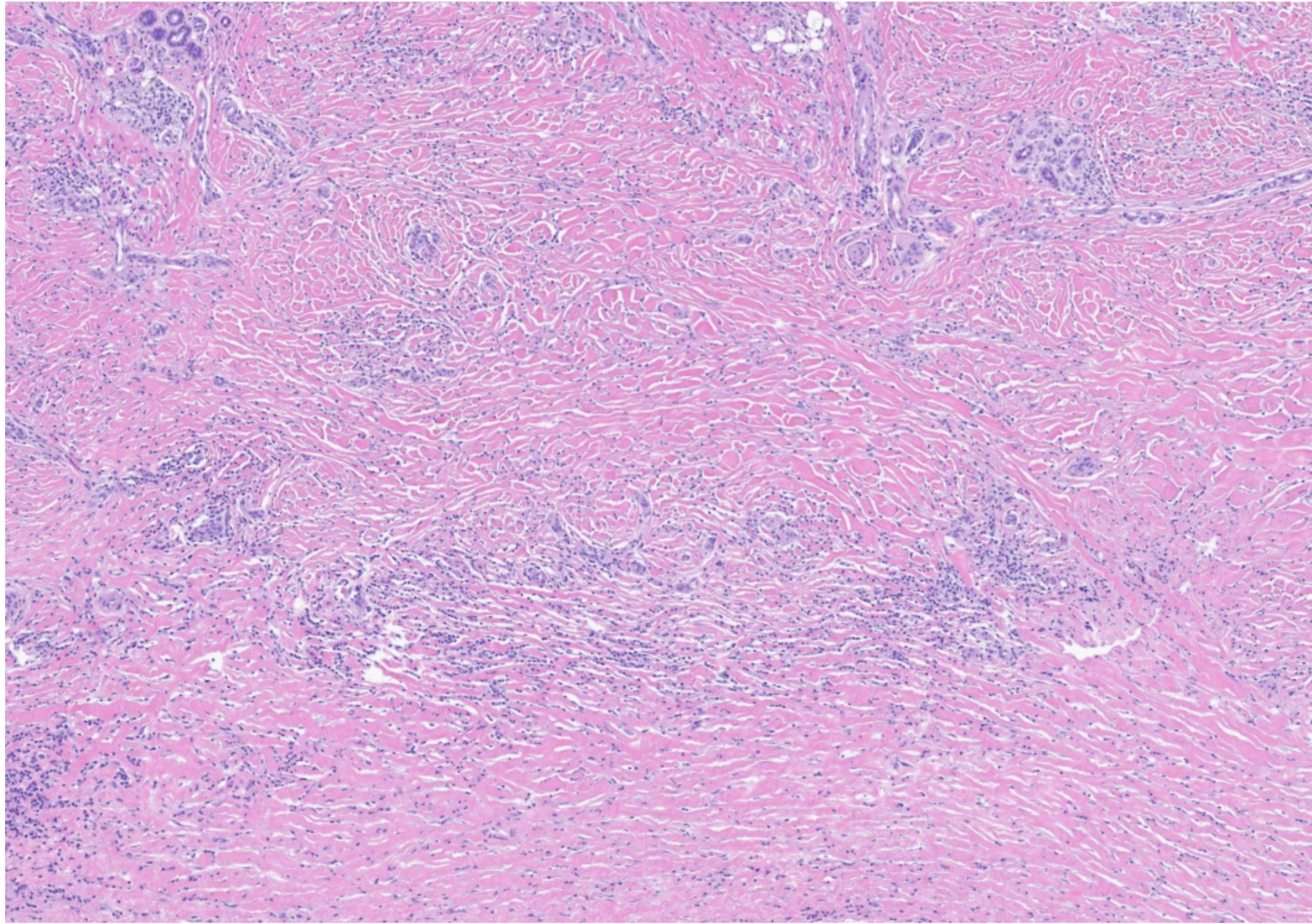
- No fasciitis
- Same inflammatory infiltrate and collagen changes as prior biopsy
- Both lesions same pathologic change

Left lateral ankle



Right elbow





So a new diagnosis was given

- Diagnosis favored by pathology was morphea profunda/nodular morphea – so in July 2023 methotrexate recommended
- Patient thought about it and was seen again in 5/7/2024 where her symptoms were essentially unchanged

A diagnostic test was performed in 2024

A Lyme test

Acrodermatitis chronica atropicans (ACA)

- Treated with doxycycline for 28 days with improvement in the rash and in her nodules
- Second course of doxycycline resulted in further improvement
- No swelling
- Improved mobility
- Still paresthesia













ACA

- Late Lyme manifestation
- May be sole feature of Lyme disease or follow prior symptomatic infection
- Does not resolve spontaneously (like ECM)
- Occurs on extremities; nodules described infrequently (2-3%)
- Begins with edematous erythema and violaceous discoloration
- May progress to atrophy
- Typically not diagnosed for a year or more

- Often diagnosed as vascular insufficiency, venous insufficiency, superficial thrombophlebitis, hypostatic eczema, arterial obliterative disease, acrocyanosis, livedo reticularis, lymphedema, or chilblains

- Older women
- Felt to not occur in US, but there are scattered reports and *Borrelia burgdorferi sensu stricto* is found in European patients; *B afzelli* predominates
- Definition includes the right clinical appearance, +Lyme antibody test and biopsy showing compatible inflammatory changes*
- Spirochetes demonstrated in ACA in a higher number of cases than ECM

If at first you don't succeed try, try again!

- Thank you
- And thanks to my dermatology colleague at DHMC, Dorothea Barton, MD, plus Rob LeBlanc, MD pathology, and Shaofeng Yan, MD pathology, as well as the patient

References

- K Ogrinc Acrodermatitis chronica atrophicans: **Clinical and microbiological characteristics of a cohort of 693 Slovenian patients** J of Inter Med 2021
- M Malane **Diagnosis of Lyme Disease based on dermatologic manifestations** Ann Inter Med 1991; 114:490-498
- A Moniuszko-Mailinowska **Acrodermatitis chronica atrophicans: various faces of the late form of Lyme borreliosis** Adv Dermatol Allergol 2018;XXXV (5):490-494
- C Moreno **Interstitial granulomatous dermatitis with histiocytic pseudorosettes: a new histopathologic pattern in cutaneous borreliosis. Detection of Borrelia burgdorferi DNA sequences by a highly sensitive PCR-ELISA** J AM Acad Dermatol 2003;48:376-84

