

The schematic, the scandalous and the scary

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Rheumatologist
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Disclosures: Dr. J. Lazovskis

Financial Relationships	Companies / Institutions
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Editorial boards	none
Fees >\$10,000	none
Stock Equity	none

4 points that I will try to get across

- 1. Managing crystalline arthropathies;
- 2. Pitfalls with common rheumatology medications;
- 3. Nonspecific peripheral MSK symptoms;
- 4. How imaging technologies can help with diagnosis and risk prediction.



The schematic rheumatology:






The schematic rheumatology: GOUT



The schematic rheumatology: GOUT



Uric Acid - History

Date	Time	Result	Units	Reference	
13/9/16	07:50	483	umol/L	208-500	

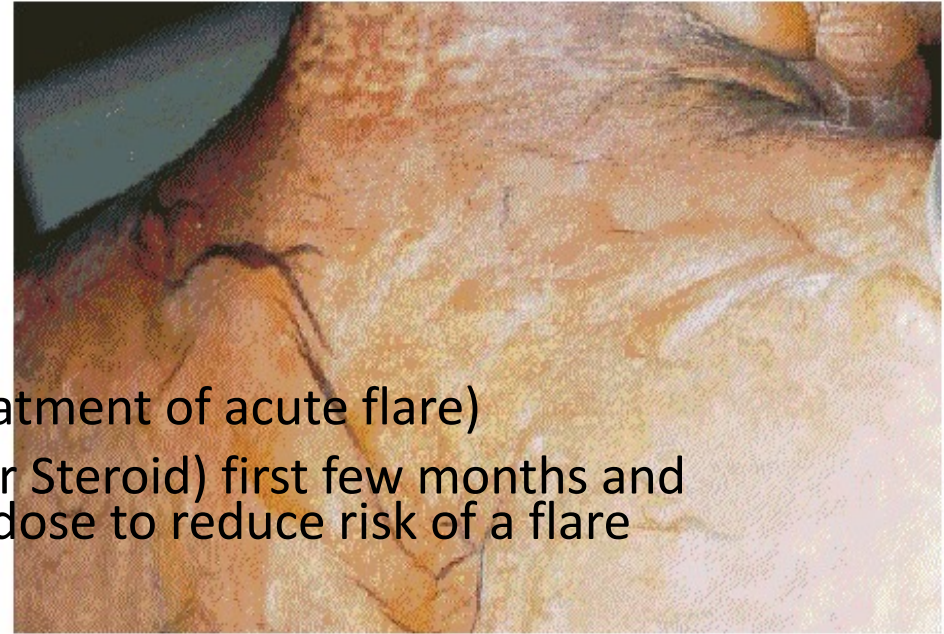
In GOUT patients – should strive for $<300\mu\text{mol/l}$

Acute flare:

- Colchicine (start ASAP)
- NSAID
- Steroid p.o.
- Steroid intraarticularly



Allopurinol



- Can start during a flare (in addition to treatment of acute flare)
- Use prophylactic rx (NSAID or Colchicine or Steroid) first few months and suggest starting on Allopurinol at a lower dose to reduce risk of a flare
- Do not stop during a flare
- Warn of new skin itchiness, rash –as early signs of very rare AHS
 - If indeed allergic, switch to Febuxostat (Uloric)
- Adjust Allopurinol for renal function (starting dose $\sim 1.5 \times \text{GFR}$)
 - E.g. if GFR is 60ml/min, start with 100mg a day and \uparrow by 100mg monthly
 - E.g. if GFR is 30ml/min, start with 50mg a day and \uparrow by 50mg monthly
 - E.g. If GFR is 15ml/min, start with 25mg daily or 50mg q.o.d.
- Aim for uric acid level of $<300 \mu\text{mol/l}$ (max Allopurinol dose may be $>600\text{mg}$)
- A break-through flare of arthritis is not a sign of Allopurinol allergy

The schematic rheumatology: CPPD disease

(Calcium pyrophosphate deposition disease)

- Acute CPPD disease = pseudogout

- Chronic CPPD disease = OA/RA like

- Radiographic cartilage calcification = chondrocalcinosis

- Prevalence of chondrocalcinosis:

- Rare < 50 years
- Up to 60% at age > 85 years(*)

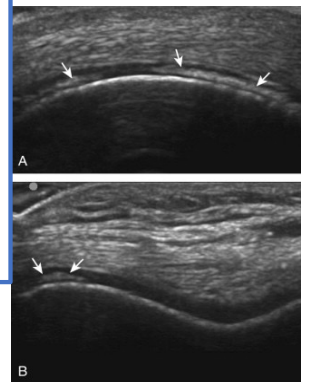
- Treatment – curative : none; symptomatic

If age < 50 years, please, rule out:

- hyperparathyroidism **Ca⁺⁺**
- hypophosphatasia **Alk. phosph**
- hypomagnesemia **Mg⁺⁺**
- hemochromatosis **Fe⁺⁺, Fe⁺⁺ sat.**

Acute flare:

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- NSAID
- Steroid p.o.
- Steroid intraarticularly



* Felson et al, *Framin. J Rheu*,1989;16:1241, Filippou et al, *ARD*, 2007; 66:1126





Vincent van Gogh (1853-1890). "Old woman sewing" (1881)

CPPD disease



Gout

The schematic rheumatology : Rheumatoid arthritis

- RA may present with extensor tenosynovitis (esp. ECU)
- RA may present as PMR in elderly
- Anti-CCP Ab (> RF) have a good sensitivity and specificity for RA
- Xray diagnosis of RA = risk of missing RA



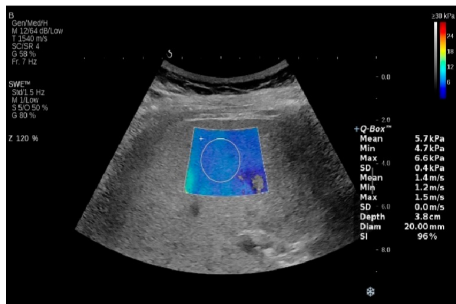


Pierre-Auguste Renoir (1841-1919). "On the terrace"(1881)

Rheumatoid arthritis

Methotrexate in rheumatology

- More effective in early RA
- ↓CVD mortality: 70% less likely to suffer a fatal CV event(*)
- No increased risk of pulmonary fibrosis; slightly ↑respiratory infections RR 1.1 (**). Rheumatoid lung disease is due to RA +/- smoking
- No increased risk of liver fibrosis as assessed by ultrasound elastography if no preexisting liver disease(***). Liver disease is due to metabolic risks, EtOH etc.



-Quantification of steatosis
-Identification and staging of fibrosis,
-prediction of evolution to cirrhosis

«Fatty liver»
on Ultrasound



Figure 3. Two-dimensional shear wave elastography (2D-SWE) using SuperSonic equipment.

*Choi, H.K., Hernan, M.A., Seeger, J.D., Robins, J.M. and Wolfe, F. (2002) Methotrexate and mortality in patients with rheumatoid arthritis: a prospective study. *Lancet* 359: 1173–1177.

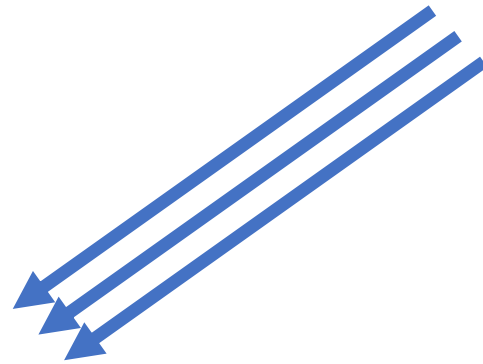
**Conway R, Low C, Coughlan RJ, O'Donnell MJ, Carey JJ. Methotrexate and lung disease in rheumatoid arthritis: a meta-analysis of randomized controlled trials. *Arthritis Rheumatol* 2014;66:80312

**Conway R, Low C, Coughlan RJ, O'Donnell MJ, Carey JJ. Methotrexate use and risk of lung disease in psoriasis, psoriatic arthritis, and inflammatory bowel disease: systematic literature review and meta-analysis of randomised controlled trials. *BMJ* 2015;350:h1269.

***Martin Feuchtenberger · Lisa Kraus, · Axel Nigg · Hendrik Schulze-Koops, · Arne Schäfer, Methotrexate does not increase the risk of liver fibrosis in patients with rheumatoid arthritis: assessment by ultrasound elastography (ARFI-MetRA study, , Springer Nature, Springer Nature 2021

Nonalcoholic fatty liver disease (NAFLD)

10-46%*



Nonalcoholic fatty liver (NAFL)
(hepatic steatosis with no
inflammation)

Nonalcoholic fatty
liver disease (NASH)
(steatohepatitis with
inflammation)

3-5%*

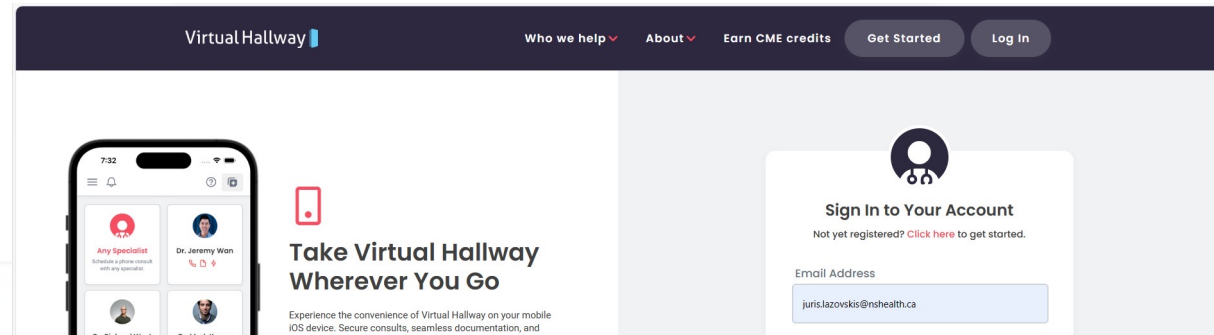
* Williams CD, Stengel J, Asike MI, Torres DM, Shaw J, Contreras M, Landt CL, Harrison SA ,
,Prevalence of nonalcoholic fatty liver disease and nonalcoholic steatohepatitis among a largely middle-aged population utilizing ultrasound and liver biopsy: a prospective study.
Gastroenterology. 2011;140(1):124.

Consult Request

Last Updated: Nov 23 2023 9:16 pm AST

Consult Question

Is it reasonable to use short doses of prednisone for an ambiguous diagnosis of fibromyalgia vs RA?



The screenshot displays the Virtual Hallway website. The top navigation bar includes the logo and links for 'Who we help', 'About', 'Earn CME credits', 'Get Started', and 'Log In'. The main content area features a mobile app interface on the left, showing a grid of specialist options like 'Any Specialist' and 'Dr. Jeremy Wan'. To the right of the app is a promotional text: 'Take Virtual Hallway Wherever You Go' with a sub-headline 'Experience the convenience of Virtual Hallway on your mobile iOS device. Secure consults, seamless documentation, and...'. On the far right, there is a sign-in section with a 'Sign In to Your Account' heading, a link for 'Not yet registered? Click here to get started.', and an email address input field containing 'juris.lazovskis@nshealth.ca'.

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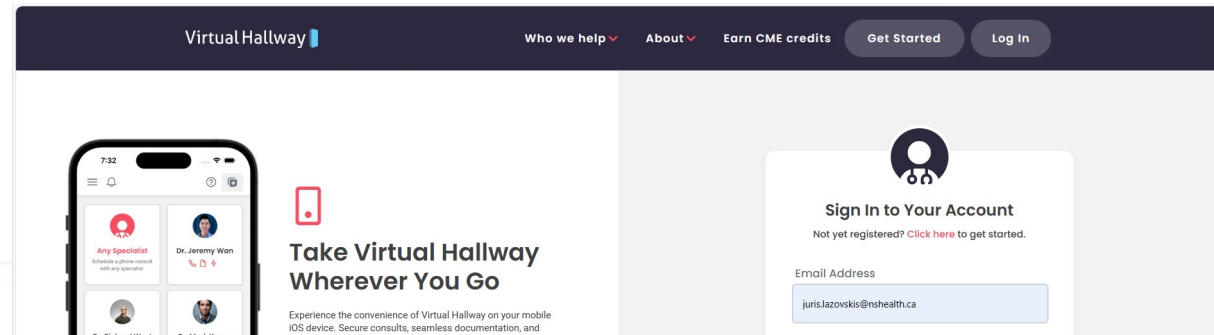
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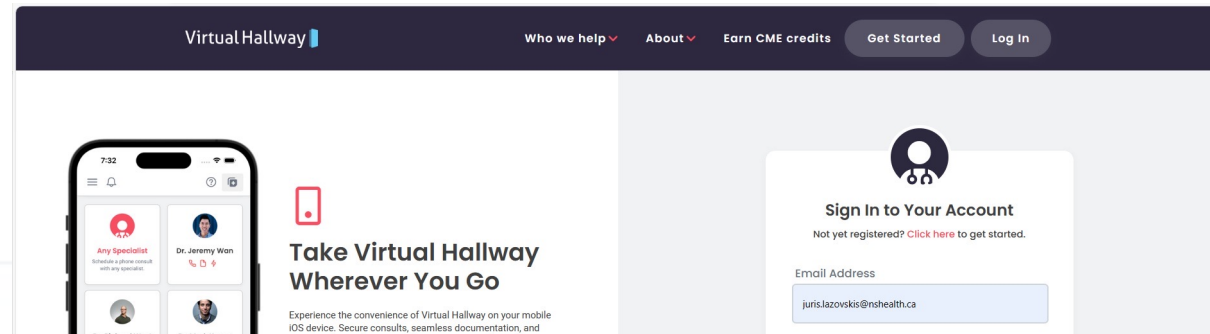
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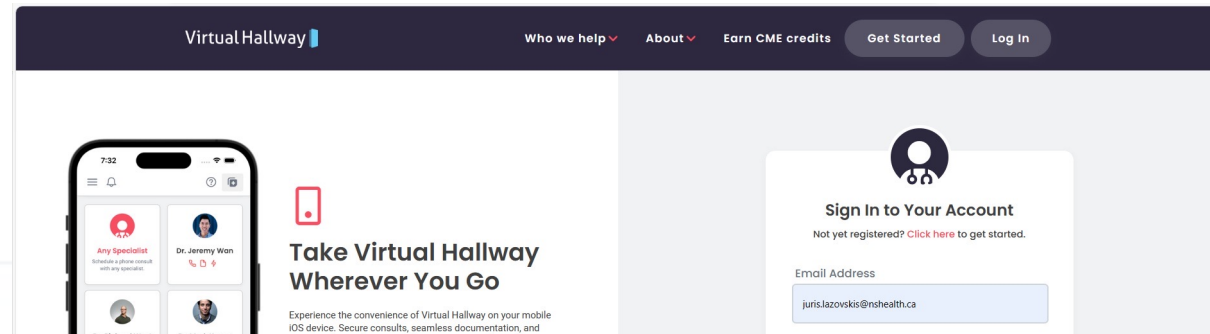
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yes
ideally, no

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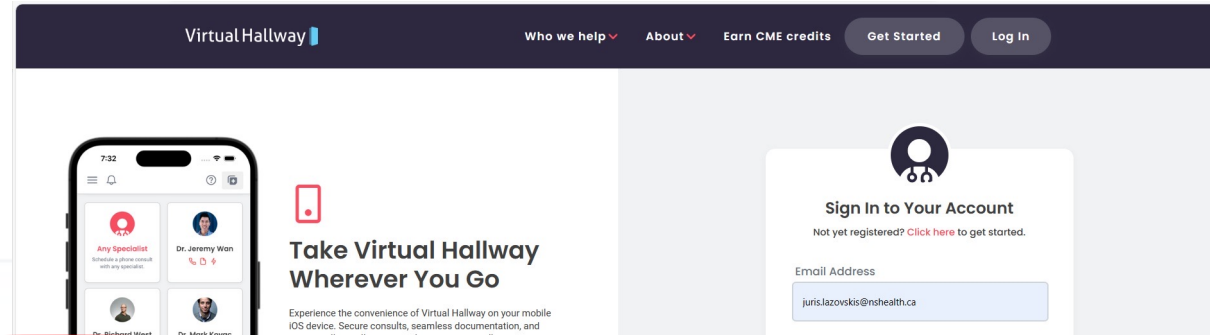
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yes
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?

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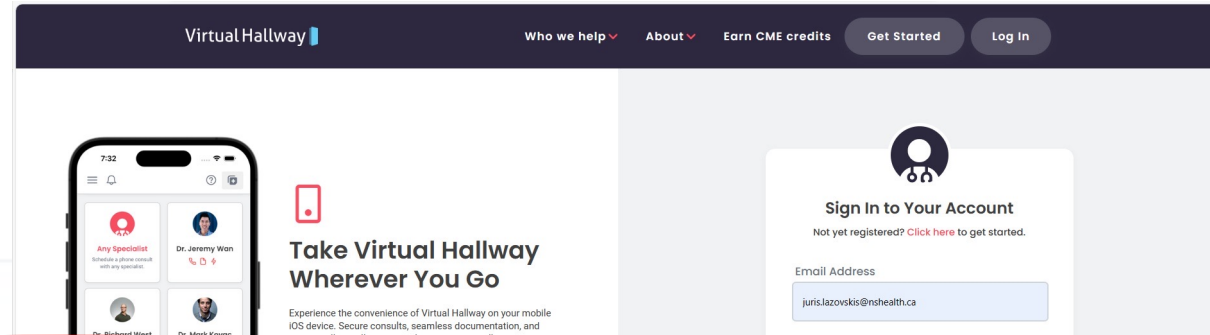
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yes
ideally, no

?
not good

Ddg

- Preclinical/early rheumatoid arthritis
 - May have +RF, +a-CCP Ab, ↑CRP, ESR

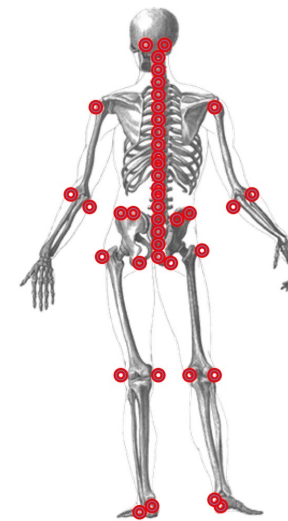
- Sjogrens syndrome
 - +RF and anti-SSA Ab

- Spondyloarthritis
 - (Ank. Spond, PsA, IBD arthritis)

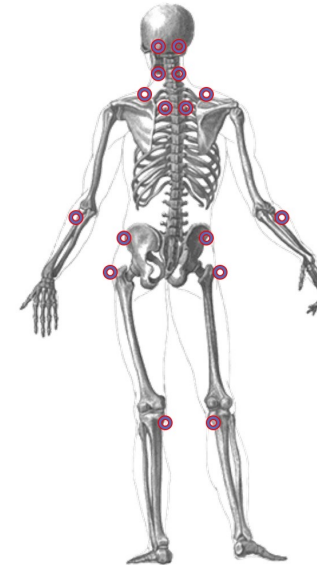


- Fibromyalgia

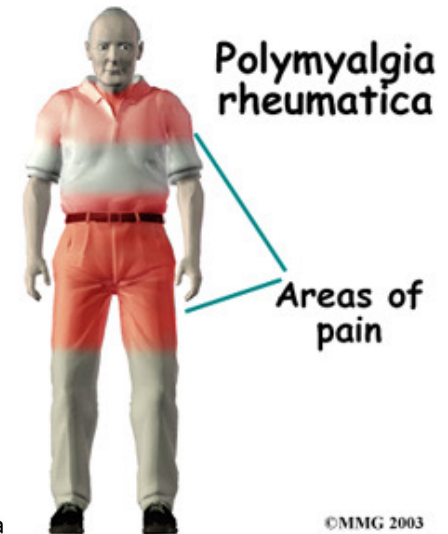
- PMR
 - ↑CRP, ESR



Enthesitis due to Spondyloarthritis

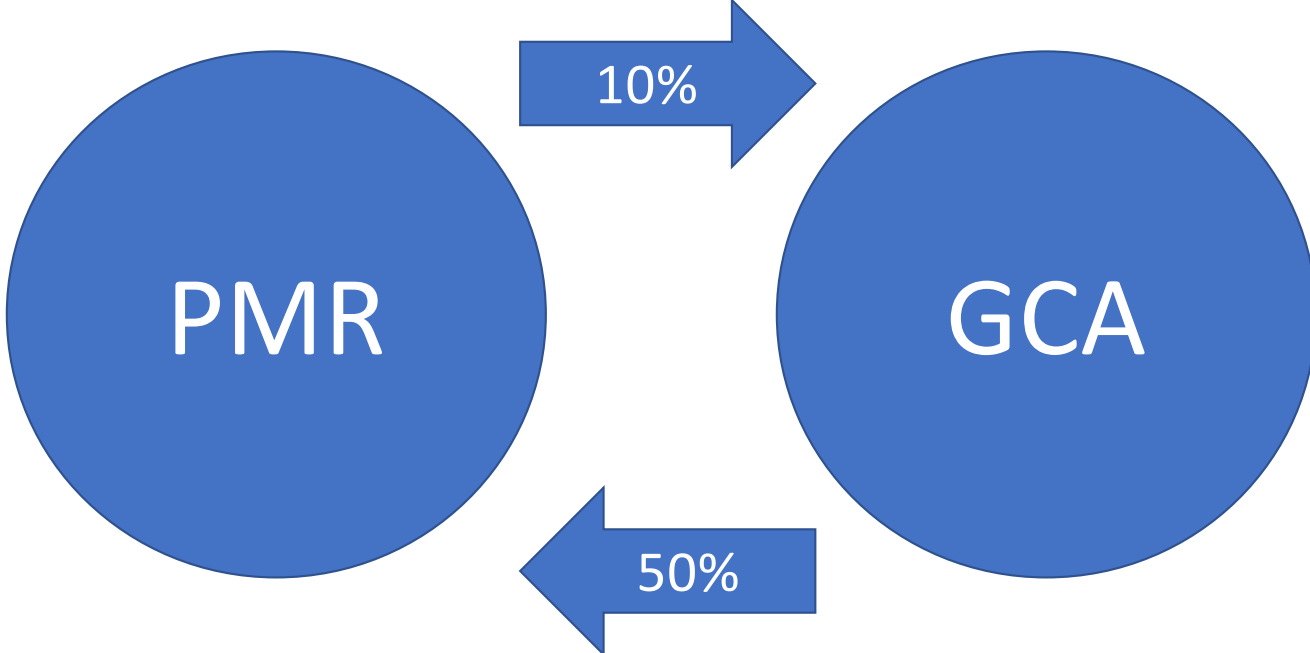


Tender points of fibromyalgia



Polymyalgia rheumatica

Areas of pain



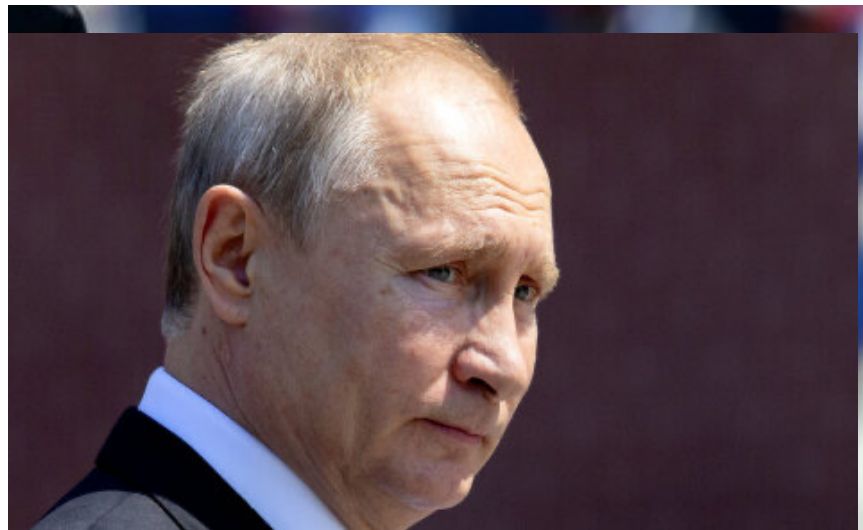
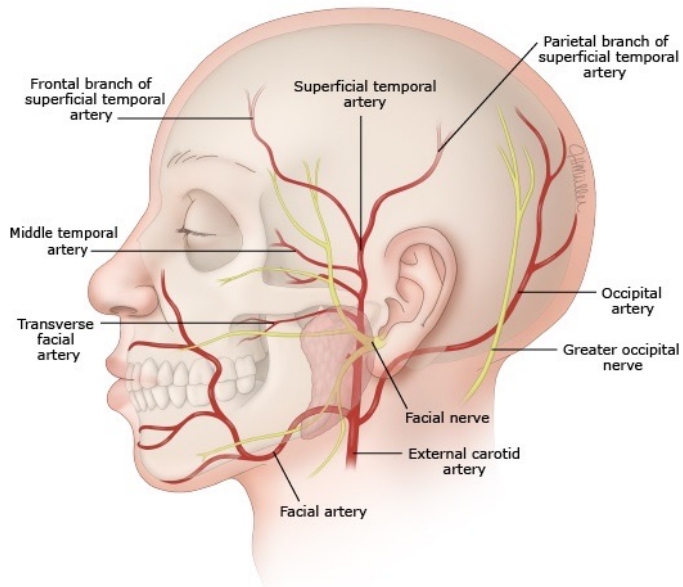
Is this Giant Cell



Other sx:

- Maxillary and dental pain
- Facial swelling
- Throat pain
- Dry cough
- Tongue pain
- stroke (up to 7%), cortical

dysfunction,dementia

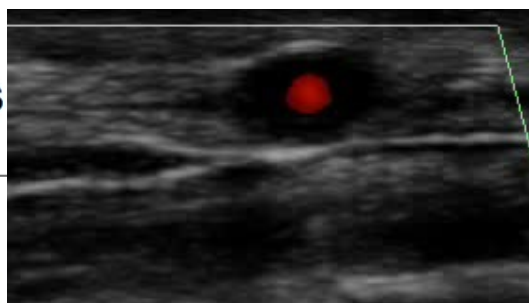
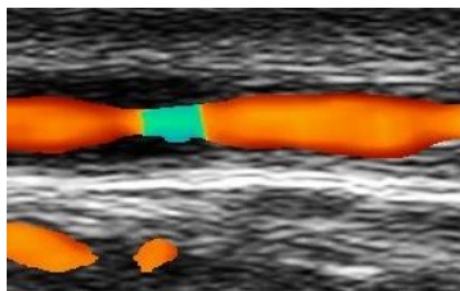


Graphic 82875 Version 2.0

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The halo sign in the temporal arteries has a sensitivity of 75% and a specificity of 83% for diagnosis of biopsy-proven GCA.

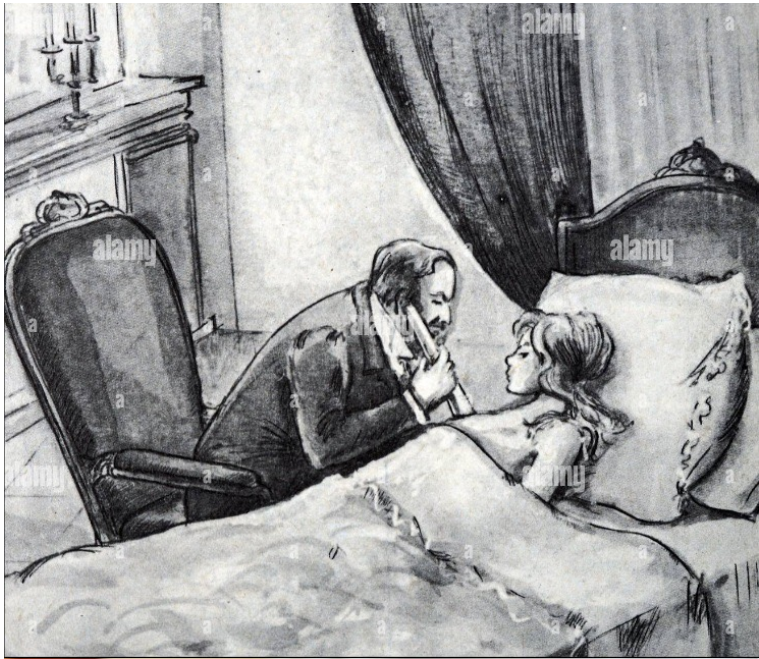
Pitfall 8: Skip Lesions



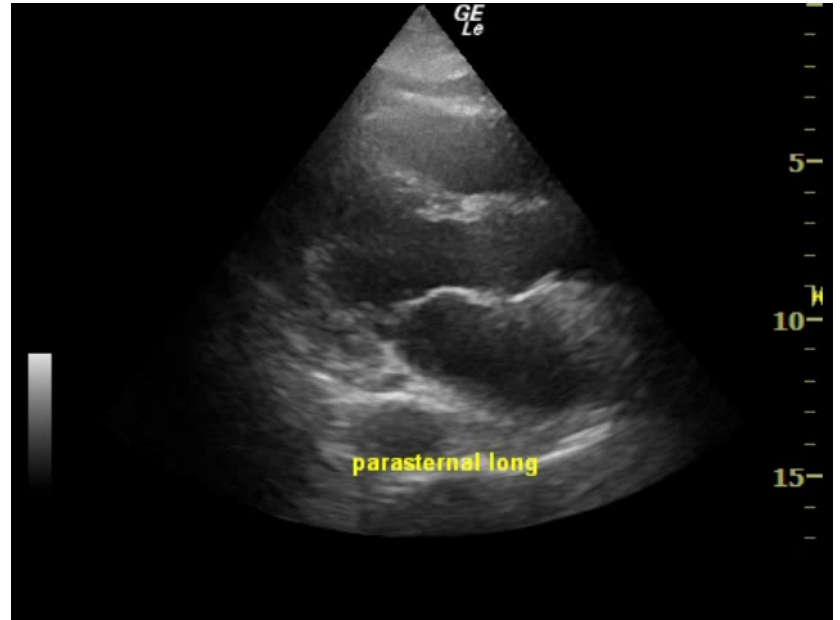
**Complete
bilateral exam**



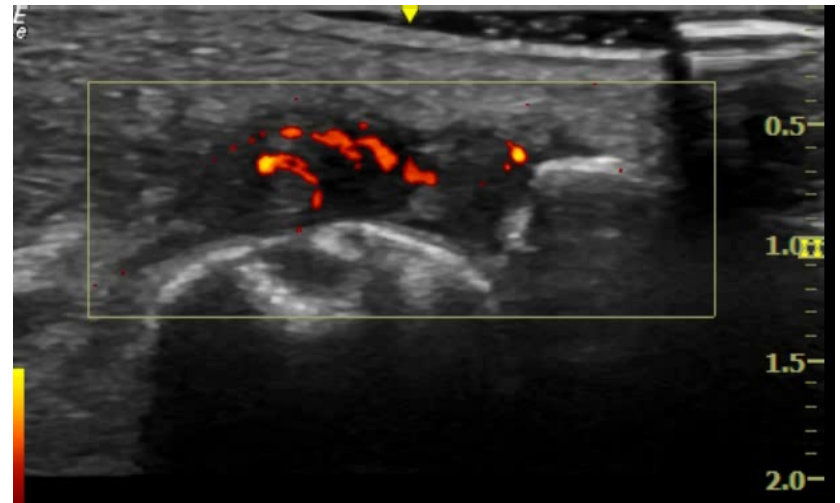




1816



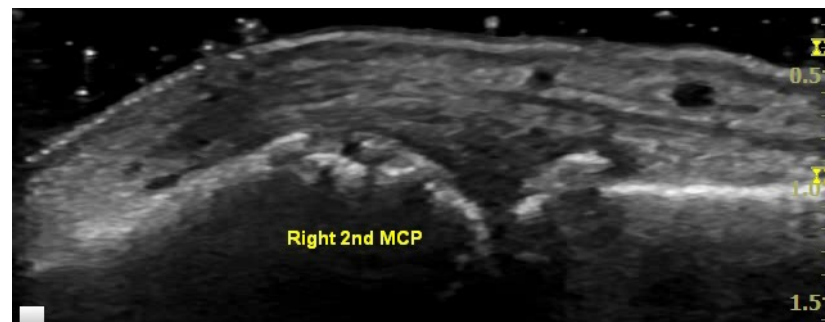
25 BC



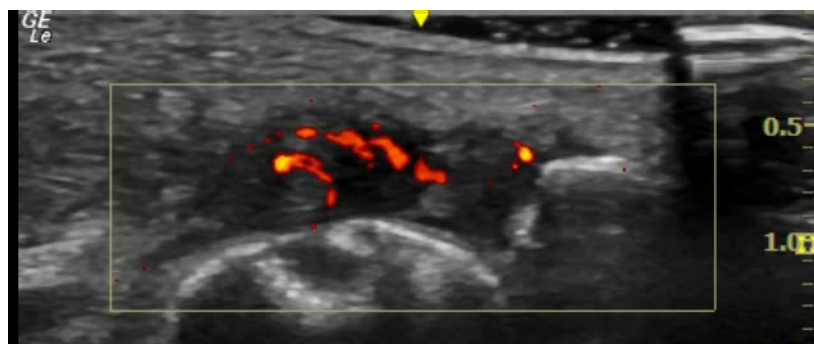
- Gout



- CPPD disease



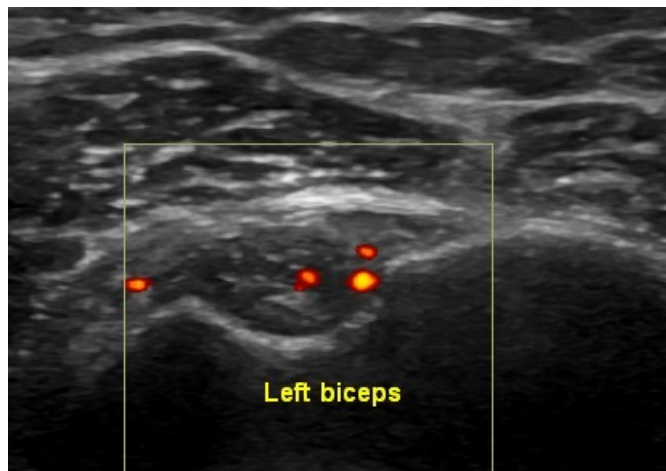
- Rheumatoid arthritis



- Sjögren's syndrome



- Entesitis in Spondyloarthritis



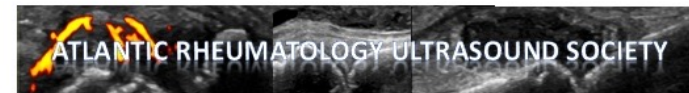
- PMR





With special thanks to Inverness Hospital

• Dr. Mark Bennett, Dr. Susie Egar, GPs and resident colleagues



DOCENDO DISCIMUS



DALHOUSIE
UNIVERSITY

CONTINUING PROFESSIONAL
DEVELOPMENT &
MEDICAL EDUCATION

7th Annual Inverness ultrasound conference

July 20-22, 2024

Email: rheumatology.cb@nshealth.ca

Fax: 902-539-8033