Answering the Most Common (Inpatient) Rheumatology Questions

16th Annual Rocky Mountain Hospital Medicine Symposium
"CURBSIDE CONSULTATION TRACK"

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Disclosures

None relevant

Learning Objectives

1) Apply the diagnostic and therapeutic approach to acute crystalline arthropathy
2) Understand and implement a basic approach to suspected vasculitis
3) Identify common immediate approaches to controlling suspected severe systemic rheumatic disease
4) Understand approaches to management of chronic rheumatic disease medications in the inpatient setting

Overview

1) Why is this patient's joint painful?
2) If it's crystals, how do I treat?
3) We think possibly vasculitis – what should we order?
4) What should we do for this sick patient while we wait for rheumatic disease work-up?
5) What do we do with this patient's rheumatic disease medications while they are in the hospital?

Why is this patient's joint painful?

Key elements to the story:

1) Onset
2) Other findings (swelling and pain vs. just swelling)
3) Setting
4) Other joints! Toe hard to tap → knee easy (if you knew it was swollen)
5) Prior history
6) Imaging (sometimes helpful)
7) Joint fluid results ☺

Critical points

What is the single best blood test to explain a 1-2 new swollen and painful joints?

Joint fluid analyses

Testing
Gram stain
Culture
Cell count and differential
Crystals
Purple top/EDTA and syringe with cap. 2 mL (or more)

Anticogulation
Level of anticoagulation doesn't typically matter
INR <5 OK
NOACs not a problem

Operators:
Ortho, radiology, rheumatology, internal medicine

Arthrocentesis and Joint Injection in Patients Receiving Direct Oral Anticoagulants

Jennifer C. Yui, MD; Carina Preskill, MD; and Laura S. Greenlund, MD, PhD

Abstract

Anticoagulation is common in patients undergoing arthrocentesis and joint injections. Previous studies have established the safety of continuing anticoagulation with warfarin before joint aspirations/injections with only a small increased risk of bleeding, but no data are available regarding the use of direct oral anticoagulants (DOACs) and joint aspirations/injections. The objective of this study was to determine the rate of bleeding complications associated with arthrocentesis and joint injection in patients receiving DOACs. We performed a retrospective review of adult patients at Mayo Clinic in Rochester, Minnesota, who were being treated with DOACs and underwent outpatient joint aspiration and/or injection between October 1, 2010, and October 31, 2016. In 1050 consecutive procedures, there were no bleeding complications. Arthrocentesis and joint injections in patients receiving DOAC therapy are safe procedures, and there is no need to withhold anticoagulation treatment before the procedure.

 ■ Mayo Clin Proc. 2017;92(8):1223-1226

If it's crystals, how do I treat?

Depends

No renal, volume or GI issues = NSAIDs

If 1-2 joints, intra-articular steroids

If >2 joints, and/or issues preclude NSAIDs, systemic steroids

Colchicine possible but tricky and reasonable to avoid in acute crystalline arthritis
- NEVER IV (and you probably cannot get it)
- NEVER with cyclosporine (neuromuscular toxicity)

Key article: inpatient gout

Curr Rheumatol Rep (2014) 16:458
DOI 10.1007/s11926-014-0458-z

SURGERY AND PERIOPERATIVE CARE (CR MACKENZIE AND SM GOODMAN, SECTION EDITORS)

Inpatient Gout: A Review

Mark C. Fisher · Michael H. Pillinger · Robert T. Keenan

We think possibly vasculitis – what should we order?

Key elements to the story

What evidence do you have that there is end-organ damage from active obstructive vascular process?

What are acute levels of inflammation?
ESR and CRP

Things you can order for 'broad' look at vasculitis – but pretest probability is important!

Labs
CBC, CMP, UA
ESR, CRP
ANA with panel
C3 and C4
Rheumatoid factor
ANCA with MPO and PR3
Maybe antiphospholipid antibodies

Imaging
CTA and MRA not great resolution for vessels <5 mm

Tissue

What should we do for this sick patient while we wait for rheumatic disease work-up?

Depends on type and extent of illness

Catastrophic organ failure

Methylprednisolone 1000 mg daily x 3 days then prednisone equivalent 1 mg/kg/day

Modest organ failure

Prednisone equivalent 1 mg/kg/day

What should we do for this sick patient while we wait for rheumatic disease work-up?

Other 'acute' therapies

Plasma exchange

If there is consideration for severe immune complex or antibody mediated diseases.

'immediate labs' include low complements and positive rheumatoid factor

Clinical disease usually acute lung injury, renal failure, rashes

IVIg

Special situations usually neurological or for rheum, if want to avoid 'immunosuppression'

Need to watch for allergy and volume

What do we do with this patient's rheumatic disease medications while they are in the hospital?

Depends on why they are there

Only 'good' guidelines are for elective total knee and hip replacements which state that you can continue basically everything but stop injectables, infuseables and tofacitinib, and sometimes mycophenolate if the patient is doing well.

Everything else is good clinical judgement but a 'rule of thumb' is:

a) OK to stop rheumatic therapies because there is not good evidence that if you stop it, the patient will lose long-term response
b) Don't stop steroids but you can lower to prednisone 20 mg/day equivalent to provide adrenal coverage and minimize toxicity
c) If infection a consideration, stop immunosuppression

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SPECIAL ARTICLE

2017 American College of Rheumatology/ American Association of Hip and Knee Surgeons Guideline for the Perioperative Management of Antirheumatic Medication in Patients With Rheumatic Diseases Undergoing Elective Total Hip or Total Knee Arthroplasty

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Questions

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UCHealth DocLine: **1-844-285-4555**

<30% of inpatient settings have access to inpatient rheumatology consultation

WARNING: UCHealth doesn't pay for phone consults