Session 26
Musculoskeletal & Connective Tissue Therapeutics 2
Naturopathic Medicine Department
Rheumatoid arthritis
Case Tutorial (1.25 hrs)

... let’s learn about the management of rheumatoid arthritis through a case study
Female, 52 years

- Rheumatoid arthritis
  - seemed to commence around age 38-39, with stiffness in both wrists and some fingers
  - was working with her hands a lot at the time, so just thought it was an occupational issue and would resolve soon
  - was also under a lot of stress at the time (messy separation from partner)
  - over next two years pain and stiffness worsened, with some swelling noticeable in some finger joints, and tenderness of those joints
Female, 52 years

- Rheumatoid arthritis
  - was prescribed naproxen in steadily increasing dosages from age 41 to age 51, and whilst it helped somewhat with the pain and stiffness, the joint disease progressed
  - also started to get some elbow pain and swelling about age 45, and hip pain around the same time
  - now has significant tenderness, pain and deformities of wrists, index and middle finger metacarpophalangeal and proximal interphalangeal joints in both hands – limits ability to use hands
Female, 52 years

- GORD, gastritis, and gastric ulceration
  - for about 5 years, progressively worsening
  - classic pain presentation, worse in evening after dinner and when lying in bed (tends to eat late due to long work hours)
  - *H. pylori* negative – assumption is NSAID induced, therefore advised to cease naproxen 9 months ago

- Hypertension
  - 155/98 at last check up with doctor, even though medicated for the last 2 years
Female, 52 years

• Occupation:
  – works in design, running own business
  – high stress, long hours, managing a number of people and tight deadlines, but fortunately less work with her hands now than in the past

• Other History:
  – smoker, 30-40 cigarettes per day, since age 20
  – has tried quitting three times, but extremely agitated and aggressive when tries
Female, 52 years

• Diet:
  – high in refined carbohydrates and sugar (sweet pastries for breakfast, sweet biscuits as a snack during the day)
  – salad most days with chicken or fish
  – red meat twice/week
  – 2-3 single shot lattes per day 6 days a week, with 1 sugar (7th day usually has only 1 coffee)
  – 3-4 glasses of wine 5 nights a week, sometimes a glass at lunch if meeting with clients
Female, 52 years

• Physical Examination & Investigations:
  – Blood work 6 months ago reveals moderately elevated GGT, ALT, AST

• Medications
  – celecoxib 200mg twice daily
  – ramipril 5mg daily
  – esomeprazole 20mg daily
  – Gaviscon Extra Strength Cool Mint, 5-10mL most nights, sometimes 5mL during the day
Female, 52 years

• Other:
  – patient is aware that the medications are doing little more than offering symptomatic relief, and is thus looking for additional solutions
  – patient is also aware that lifestyle and diet is an issue
    • is willing and able to reduce some of the work stresses
    • is willing to change diet, but not sure how
    • knows she needs to reduce alcohol consumption, but finds that difficult with work
    • wants to stop smoking, but doesn’t know how to succeed
Case tutorial requirements

- Divide into 2-3 groups, and each group works individually, and then presents their findings at the end

- What is your diagnosis?
  - why?

- What are your treatment objectives?
  - why?
  - are they SMART, holistic, patient-centred, individualised and rational?

- What methods/actions would you choose to achieve your objectives?
  - why?

- What herbs are most appropriate for each method/action?
  - why?

- Build your final formula with amounts and dosage instructions (see table on next slide)
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<th>Chosen dose per week</th>
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**Dosage & instructions**

Other herbal prescriptions (e.g. infusions, topicals, tablets/capsules)? Provide dosage and instructions, and rationale.
Systemic lupus erythematosus
(lupus, SLE)
Key points

- SLE is a chronic and systemic autoimmune inflammatory condition
  - mainly affecting connective tissue
  - various organ impacted:
    - skin, joints, muscles, lungs, kidneys, CNS, and blood
- Individual presentations often highly variable
- Common features include arthralgia, myalgia, fatigue, cognitive impairment
- Severe organ disease can sometimes occur (eg. severe renal disease)
Key points

• Treatment can be complicated due to it being a multisystem disease, especially if the focus of treatment is merely symptomatic
  – focus on aetiological factors (if able to be determined), and core pathophysiology, with symptomatic treatment adding additional support

• Long term glucocorticoid prescription can have adverse consequences on connective tissue integrity, bone density, and stress adaptation

• Some immunosuppressants may increase risk of cervical dysplasia in HPV+ patients.
Herbal management

1. Identify and eliminate primary lesion (if possible) and manage sustaining factors
   • digestive health
   • allergens
   • microbial infections

2. Reduce pain
   • analgesics
     • *Corydalis* and/or *Eschscholtzia californica*
       – only useful intermittently, not long term
Herbal management

3. Reduce inflammation

- TNF-\(\alpha\) & NF-\(\kappa\)B expression inhibitors
  - *Curcuma longa*
  - *Boswellia serrata*
- Eicosanoid synthesis modifiers
  - *Curcuma longa*
  - *Boswellia serrata*
  - *Filipendula ulmaria*
  - *Salix spp.*
  - Fish oil
Herbal management

3. Reduce inflammation (continued)

- glucocorticomimetics (careful if patient is on glucocorticoids)
  - *Rehmannia glutinosa*
  - *Glycyrrhiza glabra*
  - *Bupleurum falcatum*
- inhibit platelet activating factor (PAF)
  - *Ginkgo biloba*
- antioxidants
  - *Vitis vinifera, Pinus pinasta*
Herbal management

4. Modulate immune response

- immunomodulators
  - *Astragalus membranaceus*
  - *Echinacea purpurea, E. angustifolia*
  - *Ganoderma lucidum and Lentinula edodes*

- immunosuppressants
  - *Hemidesmus indicus*
  - *Rehmannia glutinosa*
Herbal management

5. Improve cognition
   • Cognitive tonics
     • *Ginkgo biloba*
     • *Centella asiatica*
     • *Camellia sinensis*

6. Improve digestive health
   • Bitters and cholagogues
   • Digestive anti-inflammatory (eg. *Matricaria*)
   • Probiotic supplementation
Herbal management

7. Improve circulatory function
   • circulatory stimulants, peripheral perfusion enhancers
     • *Ginkgo biloba*
     • *Zingiber officinale*
       – careful during acute flares due to heating nature

8. Encourage CT repair, reduce steroid AR’s
   • connective tissue tonics
     • *Centella asiatica*
     • *Vitis vinifera, Pinus pinasta* (and vit C, flavonoids)
Herbal management

9. Improve stress response and reduce fatigue
   - adaptogens
     - *Withania somnifera*
     - *Astragalus membranaceus*
     - *Eleutherococcus senticosus*
     - *Centella asiatica*
     - *Panax quinquefolius*
   - exercise
     - yoga, tai chi, qi gong
Herbal management

10. Manage mood & sleep

- thymoleptics
- nervine trophorestoratives
- antidepressants
- anxiolytics
- nervine sedatives
Clinical pearls

• View SLE as a quality of life disease – a key determinant of improvement should be the patient’s own rating of their quality of life and changes over time

• Effectively managing the inflammatory process will have wide-ranging positive benefits, including on mood and cognitive function
Ankylosing spondylitis
Key points

- Chronic, systemic, autoimmune inflammatory condition affecting …
  - spine, sacrum, peripheral joints
  - can also result in aortic inflammation, cardiac rhythm disturbances, and uveitis
  - neurological pain can be a result of spinal degenerative changes leading to nerve compression
  - lung complications (rare)

- More common in males than females, aged 20-40 years.
Herbal management

1. Identify and eliminate primary lesion (if possible) and manage sustaining factors
   - digestive health
   - allergens
   - microbial infections

2. Reduce pain
   - analgesics
     - *Corydalis* and/or *Eschscholtzia californica*
       - only useful intermittently, not long term
Herbal management

3. Reduce inflammation

- inhibitors of TNF-\(\alpha\) & NF-\(\kappa\)B expression
  - *Curcuma longa*
  - *Boswellia serrata*
- eicosanoid synthesis modifiers
  - *Boswellia serrata* (full mechanism unclear)
  - *Filipendula ulmaria, Salix spp.* (more beneficial in AS than SLE)
  - *Harpagophytum procumbens*
  - fish oil
Herbal management

3. Reduce inflammation (continued)

- glucocorticomimetics (less beneficial in AS than SLE; also careful if patient on concurrent glucocorticoids)
  - *Rehmannia glutinosa*
  - *Glycyrrhiza glabra*
- antioxidants
  - *Vitis vinifera, Pinus pinasta*
Herbal management

4. Modulate the immune response

- immunomodulators
  - *Picrorrhiza kurroa*
  - *Echinacea purpurea, E. angustifolia*
- immunosuppressants
  - *Hemidesmus indicus*
  - *Rehmannia glutinosa*
Herbal management

5. Improve digestive health
   • Bitters and cholagogues
   • Digestive anti-inflammatories (eg. *Matricaria*)
   • Probiotic supplementation

6. Improve circulatory function
   • circulatory stimulants
     • *Zanthoxylum clava-herculis*
     • *Zingiber officinale*
Herbal management

7. Encourage CT repair
   • connective tissue tonics
     • *Centella asiatica, Vitis vinifera*

8. Improve stress response & encourage mobility
   • adaptogens
     • *Withania somnifera*
     • *Eleutherococcus senticosus*
     • *Centella asiatica*
   • exercise
     • yoga, tai chi, qi gong
Herbal management

9. Improve sleep (if relevant)

- nerve sedatives
  - *Corydalis*, *Eschscholzia californica*, *Piscidia piscipula* (additionally beneficial as analgesics)
  - *Scutellaria lateriflora*
  - *Passiflora incarnata*
  - *Valeriana officinalis*
  - *Piper methysticum* (can be helpful with muscle tension as well)
Clinical pearls

• Exercise is essential
  – however weight bearing exercise must be conducted carefully due to risk of spinal micro-fractures
  – there recommend exercise which encourages mobility, with gentle stretching
    • eg. gentle yoga, tai chi, qi gong
Reactive arthritis

previously known as Reiter’s syndrome
Key points
(Kontzias, 2019)

• Acute spondyloarthropathy usually triggered by a gastrointestinal or genitourinary infection

• Can affect a variety of joints, is often asymmetrical and multiple joints, with pain and sausage-shaped deformities of fingers or toes or both being common

• Systemic symptoms such as fever, fatigue and weight loss are common

• Conjunctivitis and mucocutaneous lesions can occur
Herbal management

- Due to the more acute nature, focus will be on establishing the infectious agent and eliminating.
- Otherwise, focus of treatment is similar to conditions such as RA and SLE, with a little more focus on:
  - local treatments for conjunctivitis and mucocutaneous lesions
  - gastrointestinal flora and integrity
Pre-reading for Session 27
Read before your next Session

- Merck Manual Professional Version
  - Obesity
  - Metabolic syndrome
  - Secondary adrenal insufficiency
  - Cushing syndrome
References


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