WHMC311 Clinical Herbal Medicine

Session 04
Gastrointestinal Therapeutics 1
Naturopathic Medicine Department
Let’s commence with a case

... then learn how to manage this patient’s problems
Female, 39 years

• Presenting Complaints:
  – mild morning nausea prior to breakfast, resulting in very low morning appetite, last 2 years
  – appetite improves around 1100hrs, and she then usually consumes her first meal of the day: a black filter coffee coffee with 1 sugar and some wholemeal toast with cottage cheese and tomato, usually followed by another coffee around 1230hrs
  – lunch is a small salad usually, with nuts and seeds, around 1530hrs
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  – dinner is around 2000hrs and is usually a large family affair, with a strong Greek cultural influence (husband is Greek), with lots of red meat, fish twice weekly, little chicken, lots of baked or BBQ vegetables, rice, breads, olive oil
  – by dinner she is usually very hungry, and eats a large portion
  – no history of vomiting, difficulty swallowing, gastrointestinal pain, or abnormal bowel motions
Female, 39 years

• Other History:
  – high stress work environment, routinely starting around 0600hrs and finishing around 1800hrs on weekdays, and another 5-6hrs work on Saturdays, managing her own business for last 4 years, with 31 employees
  – enjoys her work but has some difficult employees which are causing problems for the business and the other employees, which is causing her more than usual psychological stress
  – no other illnesses
Female, 39 years

• Physical Examination & Investigations:
  – body weight is approximately normal for her height
  – abdominal palpation reveals nothing abnormal
  – a blood test including FBC, iron studies, electrolytes, liver function tests, conducted 3 months ago, all normal

• Medications
  – multivitamin each day (whatever brand is available)
  – combined OCP for last 4 years as she does not want any more children (has 4 children already)
keep this case in your mind as we move into gastrointestinal therapeutics

... and we will revisit this patient again later
Approach to the patient with gastrointestinal disorders
Centrality of the GIT

- Digestive health (digestion & assimilation) is central to normal health and wellbeing
- Consequences of dysfunction can spread to many other body systems
- Very common area of complaint for patients presenting to herbalists, naturopaths & GP’s
- Whilst overt pathology (such as ulcerative disease, gallstones, etc) can usually be visualised and well defined, functional complaints are more common, less well defined, and vary considerably between patients
Red flags
(Moleski, 2019)

- Anorexia (significant)
- Anaemia
- Blood in stool (gross or occult)
- Dysphagia
- Fever
- Hepatomegaly
- Pain that awakens patient
- Persistent nausea and vomiting
- Weight loss
Medical and herbal approach

• Medical intervention can be crucial in many cases of overt pathology, for example …
  
  – consistently painful gallstones, with nausea and vomiting; severe ulcerative disease of the stomach or duodenum
  
  – in these cases herbal medicine can provide a useful adjunctive treatment, and can assist in recovery of function after necessarily powerful pharmacological interventions or surgery

• In most functional GIT complaints however, the modern medical approach is often targeted towards pushing physiology in one direction or the other

• The herbal approach centres on promoting balance and restoration of normal function (Mills, Bone, 2000)
Primary classes of GIT medicines

- Bitters
- Carminatives
- Aromatic digestives
- Antispasmodics
- Anthelmintics
- Antimicrobials
- Demulcents
- GIT anti-inflammatory
- Astringents

- Antacids
  - is this real or an assumption that acid neutralisation is occurring based on improved symptoms?
- Mucosal trophorestoratives
- Antiemetics
- Laxatives
  - anthraquinone
  - bulk
Short activity (15 min)
recalling the function of GIT medicines & listing examples

<table>
<thead>
<tr>
<th>Pharmaceuticals which force physiology in one direction</th>
<th>Herbals which restore physiological balance</th>
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Traditional and non-standard perspectives and medicines
(Weiss & Fintelmann, 2000)

- Some medicines currently Scheduled in Australia were historically used, and are still used in some countries

- These medicines usually have lower therapeutic index and higher risk profile, and in most cases are more suitable for short term symptomatic relief in serious cases

- *Atropa belladonna, Hyoscyamus niger*
  - anticholinergics (review WHMF221 materials) and thus have powerful antispasmodic, antiemetic, antisecretory activity

- *Papaver somniferum*
  - powerful antimitotility agent, as well as analgesic

- *Symphytum officinale*
  - valuable demulcent, Scheduled due to concerns around pyrrolezidine alkaloid toxicity
Anorexia

lack of, or reduced appetite (different to anorexia nervosa)
Key points

- Anorexia is a symptom, not a condition
- Can accompany mild or serious disease
- Persistent sympathetic dominance can reduce appetite
- Loss of smell and taste can reduce desire to eat (e.g. anorexia can be a comorbidity of chronic sinusitis)
- Determination and management of the cause is an essential part of treatment
- Anorexia in the elderly can be a component of poor vitality, and in turn lead to malnutrition, further reducing vitality and promoting or worsening chronic disease
Herbal management
Bone & Mills, 2013; Weiss & Fintelmann, 2000

• Determine and address the cause
• Bitters are primary medicines to improve appetite, along with aromatic digestives
• In debilitated states, or conditions with advanced GIT pathology (e.g. severe inflammatory bowel disease), take care to avoid over-stimulating appetite too quickly – the patient may eat much larger meals, straining a damaged and poorly functioning GIT
Key medicines

Bitters

- Gentiana lutea
- Artemisia absinthium
- Centaurium erythraea (Centaury)
  - not commonly used in Australia at this time, commonly used in Europe
  - similar to Gentiana in strength, likely with greater cholagogue activity
- Taraxacum officinale radix

Aromatic digestives

- Angelica archangelica
- Cinnamomum verum
- Carum carvi
- Elettaria cardamomum
- Citrus x aurantium (Bitter orange peel, not commonly used in Australia)
- Citrus reticulata (Mandarin peel or Chen Pi)
Clinical pearls

• Strong bitters, such as Gentiana and Artemisia, are often best used in low doses, particularly in debilitated or elderly individuals, or those with hypermotility disorders
  – high doses can lead to nausea and/or GIT spasm
  – carminatives can serve to modulate the activity of strong bitters, and are often concurrently prescribed

• Some bitters (e.g. Gentian, Centaury) are quite cooling in nature, and can be moderated by warming digestives (e.g. Foeniculum, Zingiber)
Clinical pearls

- Bitters combined with aromatic digestives (especially *Citrus x aurantium* or *Citrus reticulata*) can be a key component of convalescence in:
  - anorexia and debility from prolonged/severe illness
  - elderly and devitalised individuals with low appetite
Nausea & vomiting
Key points

• Nausea and vomiting are symptoms, not conditions
• Can accompany mild or serious disease
• Vomiting as opposed to mild nausea, is an immediate clinical red flag, worthy of deeper investigation
• Suppression of vomiting should only be attempted in cases where severe complications may arise
  – e.g. oesophageal erosion and perforation, rib fractures, dehydration
  – herbal medicine is unlikely to be appropriate in these cases
Key points

• Complications from vomiting, particularly severe and/or prolonged vomiting can include:
  – oesophageal damage
  – headaches
  – dehydration
  – muscle strain in the thoracic region
Herbal management
Bone & Mills, 2013; Weiss & Fintelmann, 2000

- Determine and address the cause
- Where relevant, monitor for and assist in reducing the risk of complications
- Herbal antiemetics
Key medicines

- **Zingiber officinale**
  - most forms of nausea
- **Cinnamomum verum**
  - most forms of nausea
- **Mentha x piperita**
  - nausea secondary to poor hepatobiliary function, or dietary overindulgence
- **Mentha spicata** (Spearmint)
  - nausea secondary to poor hepatobiliary function, or dietary overindulgence
- **Matricaria chamomilla**
  - especially in nausea secondary to gastritis
- **Filipendula ulmaria**
  - especially in nausea secondary to gastritis
- **Ballota nigra** (Black Horehound)
  - used traditionally in nausea of pregnancy, but can be useful in most forms of nausea
Clinical pearls

• Important to note that the issues of taste of herbal medicine
  – in someone with severe nausea, even the stronger smells of herbal medicine can induce vomiting, and oral consumption of antiemetic herbs may not be possible
  – in these cases conventional pharmaceuticals are required, potentially even through intramuscular or intravenous administration
Abdominal bloating
Key points

- Abdominal bloating is a symptom/sign, not a condition
- May or may not be accompanied by pain
- Can be a sign of conditions ranging in criticality from mild dyspepsia, intermittent constipation or irritable bowel syndrome, to GIT tumours

- Common contributing factors include:
  - dysmotility, especially secondary to stress
  - overeating
  - hepatobiliary dysfunction
  - dysbiosis
  - food allergies/intolerances
Herbal management
Bone & Mills, 2013; Weiss & Fintelmann, 2000

• Determine and address the cause

• Carminatives and/or aromatic digestives are often highly indicated where any form of dysmotility or sensation of excessive intestinal gas is present
  – note: in many cases there is not actually excessive gas production, however the dysmotility and hyperalgesia can create that sensation with normal gas volumes in the intestines

• Depending upon the cause bitters, laxatives, cholagogues or even nervines may be indicated
Key medicines

- *Foeniculum vulgare*
- *Mentha x piperita*
- *Matricaria chamomilla*
- *Angelica archangelica*
- *Anethum graveolens*
- *Citrus reticulata*
Clinical pearls

• In chronic or frequently recurrent abdominal bloating it may take time to restore normal GIT function

• If pain accompanies the bloating, carminatives and if necessary antispasmodic medicines can provide significant symptomatic relief
  – in this case to use higher and more frequent dosages for short periods may be valuable
# Short activity (15 min)
compare & contrast these medicines

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Primary Action</th>
<th>Secondary Action</th>
<th>Tertiary Action</th>
<th>Other Notes</th>
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Atonic & hypertonic dyspepsia
Key points

• Dyspepsia is a broad term: “Dyspepsia is a sensation of pain or discomfort in the upper abdomen; it often is recurrent. It may be described as indigestion, gassiness, early satiety, postprandial fullness, gnawing, or burning.” (Greenberger, 2019)

• It is a functional disorder, sometimes also known as “non-ulcer dyspepsia” to differentiate it from the observable pathology
Key points

• “Many patients have findings on testing (eg, duodenitis, motility disturbance, Helicobacter pylori gastritis, lactose deficiency, cholelithiasis) that correlate poorly with symptoms (ie, correction of the condition does not alleviate dyspepsia).” (Greenberger, 2019)

• As a result, whilst a common presentation, modern medicine is often poorly placed to offer solutions
Key points

• In herbal medicine it is often divided into two broad categories:
  – Atonic dyspepsia
    • symptoms and signs correlate to lack of mucosal tone, lack of peristaltic function, decreased secretory ability
  – Hypertonic dyspepsia
    • symptoms and signs correlate to poor mucosal integrity, hyperperistaltic function (dysmotility), and sometimes normal or increased or improperly regulated secretory ability

• Management is different between the two
Herbal management – atonic
Bone & Mills, 2013; Weiss & Fintelmann, 2000

• Improving overall gastrointestinal function is essential
  – bitters, aromatic digestives
  – choleretics and cholagogues
  – circulatory stimulants
  – mild astringents (short term to improve mucosal integrity)
  – laxatives (usually bulk laxatives, but judicious use of anthraquinone laxatives may be relevant in some cases early in treatment)
Herbal management – hypertonic
Mills & Bone, 2000; Weiss & Fintelmann, 2000

• Calming and regulating overall gastrointestinal function is essential
  – carminatives
  – aromatic digestives
  – antispasmodics
  – demulcents
  – astringents
  – nervine sedatives
Key medicines

• Due to the highly variable presentation of both atonic and hypertonic dyspepsia, key medicines are difficult to designate

• However some key principles can help guide your choice of medicines:
  – Atonic dyspepsia: warming, stimulating, tonifying
  – Hypertonic dyspepsia: cooling, calming, dispersing
Clinical pearls

• In atonic dyspepsia, if using cooling bitters (e.g. *Gentiana lutea*) it is wise to balance with warming medicines such as *Zingiber officinale*, or some aromatic digestives with warming characteristics (e.g. *Cinnamomum verum*)

• In hypertonic dyspepsia stronger bitters can increase peristaltic function and lead to worsening of discomfort
  – if bitters are needed, focus on aromatic digestives, or balance low dose bitters with carminatives

• The importance of dietary evaluation and correction cannot be overestimated
Case Tutorial (1-1.5 hrs)

... let’s return to our 39 year old female
Female, 39 years

• Presenting Complaints:
  – mild morning nausea prior to breakfast, resulting in very low morning appetite, last 2 years
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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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<tr>
<th>Latin binomial</th>
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<th>Chosen dose per week</th>
<th>Amount per bottle</th>
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**Dosage & instructions**

Other herbal prescriptions (e.g. infusions, topicals, tablets/capsules)? Provide dosage and instructions, and rationale.
Pre-reading for Session 05
Read before your next Session

- Merck Manual Professional Version
  - Gastroesophageal Reflux Disease
  - Gastritis and Peptic Ulcer Disease
- Weiss & Fintelmann
  - Gastric & Duodenal Ulcers
References


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