Session 7

Nervous System Part II

Department of Naturopathic Medicine
Assessment

Open Book Mid-Semester Exam
Students have 45 minutes to complete this assessment, plus 5 minutes reading time.
Students may use:
• Powerpoint notes (printed)
• Herbal Materia Medica worksheet (printed)
No electronic devices are allowed
Session 7

Nervous System Part II

• Materia Medica (from Traditional literature & research):
  • Rosmarinus officinalis
  • Scutellaria lateriflora
  • Turnera diffusa
  • Leonurus cardiaca
  • Verbena officinalis
  • Withania somnifera
Rosmarinus officinalis

Plant family: Lamiaceae
Part used: Leaf
Active Constituents: Phenolic acids, tannins, diterpenoid acids; flavonoids, volatile oil (Braun & Cohen, 2015)

Actions:
• Carminative, spasmodic, circulatory stimulant, thymoleptic, sedative, antimicrobial, hepatoprotective, antioxidant, tonic, diuretic
• Topically rubefacient, mild analgesic, parasiticide (Bone, 2003; Fisher, 2009)

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Rosmarinus officinalis

Historical & Traditional Prescribing:

- Used for memory enhancing properties. Was used in ceremonies.
**Rosmarinus officinalis**

**Cautions / Contraindications:**
- Caution for women wishing to conceive, based on the cineole content in its essential oil

**Herb/Drug Interactions:**
- Potential interaction for concomitant administration of rosemary during iron intake. Separate doses.

**Pregnancy and Lactation Data:**
- No adverse effects expected

(Bone, 2003)
**Rosmarinus officinalis**

<table>
<thead>
<tr>
<th>Preparation</th>
<th>Adult mL/g</th>
<th>Dosage directions &amp; considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td></td>
<td>Contact allergy has been reported for rosemary and may be the result of the constituent carnosol</td>
</tr>
<tr>
<td>Fluid extract 1:2 (60%)</td>
<td>15-30ml/ week</td>
<td></td>
</tr>
<tr>
<td>Infusion of dried herb</td>
<td>2-4gm/ dose</td>
<td>Take up to three times per day</td>
</tr>
</tbody>
</table>

(Bone, 2003; Fisher, 2009)

**Taste:** dry 2nd degree, hot 2nd degree

(Thomsen and Gennat, 2009)
**Scutellaria lateriflora**

**Plant family:** Lamiaceae  
**Part used:** Aerial parts

**Active Constituents:**
- Flavonoids, iridoids; volatile oil, vitamin C, E, calcium, potassium, iron, zinc, magnesium  
  (Barnes, Anderson, & Phillipson, 2002; Fisher, 2009)

**Actions:**
- Sedative, nervine tonic, spasmolytic, anti-convulsive  
  (Fisher, 2009)

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Scutellaria lateriflora

Historical & Traditional Prescribing:

• Calmative to the nervous system, nervous excitability, restlessness, wakefulness & disorders arising from physical or mental overwork

• Functional cardiac disorders due to nervous causes. As an infusion for children with teething pain (Bone, 2003)

Scutellaria lateriflora

Cautions / Contraindications:
• None known

Herb/Drug Interactions:
• None known.

Pregnancy and Lactation:
• No adverse effects expected
  (Bone, 2003)
# Scutellaria lateriflora

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<tr>
<td>Fluid extract 1:2 (45%)</td>
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<td>Infusion of dried herb</td>
<td>1-2gm/ dose</td>
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(Bone, 2003; Fisher, 2009)

**Taste:** cool, dry  
(Thomsen & Gennat, 2009)
**Turnera diffusa**

**Plant family:** Turneraceae

**Part used:** Leaf

**Active Constituents:**
- Carbohydrate, cyanogenic glycosides, phenols, tannins; volatile oil, bitter, flavonoids

**Actions:**
- antidepressant, thymoleptic, nervine tonic, mild purgative, stomachic, aphrodisiac, mild laxative, mild diuretic

(Bone, 2003; Fisher, 2009)
Turnera diffusa

Historical & Traditional Prescribing:

- Anxiety, depression, nervous dyspepsia.
- Constipation, renal catarrh.
- Impotence, frigidity in both sexes
  (Bone, 2003)
  (Fisher, 2009)
Turnera diffusa

NB: As of June 2018, *T. diffusa* is listed as a Schedule 4 (S4) herb and is not available for use. This is due to Arbutin content higher than levels currently approved by TGA.

Cautions / Contraindications:
• None known

Herb/Drug Interactions:
• None known.

Pregnancy and Lactation:
• No adverse effects expected

(Bone, 2003)
**Turnera diffusa**

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Currently unavailable for prescription (S4)

**Taste:** neutral and dry

(Thomsen & Gennat, 2009)
Leonurus cardiaca

**Plant family:** Lamiaceae  
**Parts used:** Aerial parts  
**Constituents:**
- Alkaloids (leonurine), iridoid glycosides, bitters, flavonoids, terpenes, tannins, phenolic acid.  

**Actions:**
- Sedative, hypotensive, cardiac tonic, anti-spasmodic, emmenagogue.  

(Fisher, 2009; Bone, 2003)
Leonurus cardiaca

Historical & Traditional Prescribing:
Most superior for suppression of the lochia. For delirium tremens, chronic diseases with wakefulness, restlessness, disturbed sleep, neuralgia of the stomach and head, palpitation of the heart, cachexia and an irritable, excitable, enfeebled state of the nervous system, spasms & pain in the pelvic and lumbar regions in females.

(Ellingwood, 1919)
Leonurus cardiaca

Cautions / Contraindications:
• Caution in pregnancy

Herb/Drug Interactions:
• None listed

Pregnancy and Lactation Data:
• Conflicting information regarding safety in pregnancy. Older texts contraindicated, eg BHP (Bone, 2003).
• More recent texts state no C/I (Blumenthal, 1999).
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(Fisher, 2009)
Verbena officinalis

Plant family: Verbenaceae
Part used: Aerial parts
Active Constituents:
• Iridoids (verbenalin), phenylpropanoids, flavonoids (luteolin, apigenin), volatile oil (Fisher, 2009)

Action:
• Nervine tonic, thymoleptic, sedative, spasmylytic, diaphoretic (Fisher, 2009)
• Mild antidepressant, astringent (Bone, 2003)
Verbena officinalis

Historical & Traditional Prescribing:


(Fisher, 2009)
Verbena officinalis

Cautions / Contraindications / Warnings:
• None listed

Herb/Drug Interactions:
• Tea can reduce the absorption of iron – separate dose by 2 hours

Pregnancy and Lactation Data:
• Caution is advised during pregnancy
  
  (Bone, 2003)

Verbena officinalis
  (Pichard, 2008)
## Verbena officinalis

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<td>20-40mL/week</td>
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<tr>
<td>Infusion of dried herb</td>
<td>2-4gm/ dose</td>
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**Taste:** dry 2\textsuperscript{nd} degree, hot 2\textsuperscript{nd} degree

(Thomsen & Gennat, 2009)
Withania somnifera

Plant family: Solanaceae
Part used: Root
Active Constituents:
• Steroidal lactones (withanolides); alkaloids, flavonoids, saponins, iron
Actions:
• Adaptogen, nervine tonic, mild sedative, antinflammatory, immune modulator, antianaemic, anticancer, hypotensive, cognition enhancing, neuroprotective

(Bone, 2003; Braun & Cohen, 2015)
Withania somnifera

Historical & Traditional Prescribing:

• Ayurveda: Inflammatory conditions, wasting in children, insomnia, senile debility, muscular pains, tonic due to disease, pregnancy, older adults

• Middle East: sedative & hypnotic taken for rheumatic pains. As a general tonic and a nervine.

• Southwest Asia: headaches, convulsion and to promote lactation

(Bone, 2003)
Cautions / Contraindications:
• Allergy to Solanaceae family

Herb/Drug Interactions:
• None known (Bone, 2003)

Pregnancy and Lactation:
• Caution recommended in pregnancy due to a reputed abortifacient activity and anti-fertility effects noted in animal studies, although no evidence of fetal damage (Braun & Cohen, 2015)
## Withania somnifera

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<tr>
<td>Oral</td>
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<tr>
<td>Tincture 2:1 (45%)</td>
<td>10-30mL/week</td>
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<tr>
<td>Liquid extract 1:2 (45%)</td>
<td>35-90mL/week</td>
<td></td>
</tr>
<tr>
<td>Fluid extract 1:1 (45%)</td>
<td>20-50mL/week</td>
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<tr>
<td>Dried herb &amp; root</td>
<td>3-6gm/ dose</td>
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**Taste:** Warm

(Thomsen & Gennat, 2009)

(Bone, 2003; Menzies-Trull, 2013)
Recommended Readings


References


References


Nadig, H.P. (2012). *Ashwaganda* [Image]. Retrieved from http://ar.wikipedia.org/wiki/%D8%B9%D8%A8%D8%B9%D8%A8_%D9%85%D9%86%D9%88%D9%85#mediaviewer/File:Ashwagandha.jpg

References


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