

### Herbal analgesics

| Opium                                                          | Willow bark                                                                  | Capsicum                                 |
|----------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------|
| A.I.: morphine & codeine.                                      | Salicin                                                                      | Capsicin                                 |
| MOA: bind to opioid receptors.                                 | Salicin + intestinal enzymes-->Salicyl alcohol oxidized into salicylic acid. | Depletes substance P + counter-irritant. |
| Limited doses in severe pain <b>under medical supervision.</b> |                                                                              |                                          |

### Sedatives & hypnotics

| Kava Kava                                                                | Valerian herb                                                 |
|--------------------------------------------------------------------------|---------------------------------------------------------------|
| A.I.: <b>fat soluble kavalactones &amp; kavapyrones</b>                  | <b>Valepotriates &amp; sesquiterpene V.O. valerenic acid.</b> |
| MOA: Potentiates GABA at its receptor.                                   | - Inhibits GABA catabolism<br>- GABA receptor agonist         |
| Standardization/dose: 70% kavalactones extract with dose 100mg 2-3x/day. |                                                               |
| A.E:                                                                     |                                                               |
| - If operating machines or vehicles.                                     | - CI in <b>pregnant women</b> (induce uterine contractions)   |
| - Avoid with <b>Levodopa or parkinson's disease</b>                      | - Potentiates other CNS depressants (Avoid concomitant use)   |
| - Severe liver injury                                                    | - Hepatotoxicity with chronic admin.                          |
| Both are for ttt of anxiety, agitation, insomnia, convulsions.           |                                                               |

### Alzheimer (for cognitive & dementia enhancement)

| Ginkgo leaves                                                                                            |
|----------------------------------------------------------------------------------------------------------|
| A.I.: <b>ginkgolides &amp; bilobalides</b> (diterpene lactones). <b>Ginkgetin</b> (biflavone glycosides) |
| Uses: slow dementia onset & delay cognitive deterioration in early AD stages.                            |
| MOA:                                                                                                     |

### AD drugs (for cognitive & dementia enhancement)

| Ginkgo leaves | Rivastigmine                                                         | Galantamine |
|---------------|----------------------------------------------------------------------|-------------|
|               | Semisynthesized from <b>alkaloid physostigmine</b> in Calabar beans. | Alkaloids.  |

### CNS stimulants

| Caffeine                                                                          |
|-----------------------------------------------------------------------------------|
| In tea leaves, coffee beans, cacao seeds, kola nuts.                              |
| MOA:                                                                              |
| - Adenosine receptor antagonism                                                   |
| - Adrenaline release                                                              |
| - Dopamine production                                                             |
| To note: can be addictive and, thus, cause <b>withdrawal symptoms</b> if cut off. |

### Depression

| St. John's wort herb                    |
|-----------------------------------------|
| A.I.: <b>hyperforin &amp; hypericin</b> |
| MOA:                                    |
| - Monoamine oxidase inhibition (MAO-I)  |
| - Serotonin reuptake inhibition         |

### Herbs for migraine & toothache

| Feverfew leaves                                                                  | Clove oil                                                                            |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Prophylactic</b> for migraine. Fam. Asteraceae.                               |                                                                                      |
| A.I.: sesquiterpene lactones ( <b>parthenolides</b> )                            | 85% eugenol.                                                                         |
| MOA: proinflammatory cytokines inhibitor (relieves cranial BV vasoconstriction). | Cox-2 inhibitor.                                                                     |
|                                                                                  | <b>Systemic</b> analgesic & anti-inflammatory. <b>Local</b> anesthetic & antiseptic. |

