

St John's Wort: the natural remedy?

Hailed by the media as nature's answer to depression, the herb St John's Wort has yet to convince the scientific community of its efficacy. Medical herbalist Yaso Shan investigates

With traces of Prozac now being found in our drinking water, there is no question that depression is a widespread problem in our society (Townsend 2004). Proponents of natural remedies and practitioners of mental health care will be familiar with St John's Wort as a popular and natural alternative to conventional antidepressants. It is often dubbed 'Nature's Prozac'. Though extremely popular as an over-the-counter herbal remedy here in the UK, it is actively prescribed by doctors in Germany in favour of conventional drugs such as the tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs) and monoamine oxidase inhibitors (MAOIs) for mild to moderate depression.

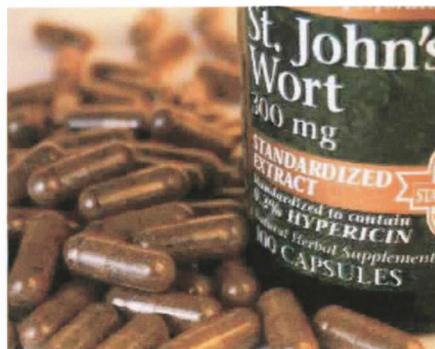
John the Baptist

Named after John the Baptist, St John's Wort contains at least ten active constituents (ACs) that may contribute to its pharmacological effects. Of these, hypericin, hyperforin and pseudohypericin are thought to be the key players, although herbalists believe that it is the synergy of these ACs that gives the herb its true therapeutic efficacy.

Experimental studies have shown hypericin to potentiate neurotransmitter binding, especially the gamma-aminobutyric acid A (GABA-A), benzodiazepine and serotonin receptors. Moreover, hyperforin has been shown to contain significant antidepressant activity but it is not entirely clear how, since it is such an unstable compound that renders it difficult to study. Much interest has been shown in the anti-tumour activity of pseudohypericin which is thought to influence the brain. This is because it is able to cross the blood-brain barrier due to its lipophilic properties. Hypericum is thought to work via a combination of SSRI and MAOI activity, since both have been demonstrated in studies using isolated AC. It is effective in mild to moderate depression, but not in severe depression. Moreover, it is contraindicated in manic states and among those with suicidal tendencies.

Overlooked properties

Its other notable actions are often overlooked since media coverage has largely focused on its antidepressant properties, probably because so many people seem to be afflicted with this condition. Importantly, St John's Wort is an effective anxiolytic and therefore particularly useful in presentations where anxiety is a feature of the depression. It also possesses powerful antiviral properties and is often prescribed for a range of viral infections such as cold sores (*herpes simplex*) and the



The efficacy of St John's Wort has been challenged in recent studies

common cold (the adenovirus). It is thought to do this by inhibiting viral replication and by modulating immune responses.

Topically, it is an excellent vulnerary (wound healer) and an anodyne (pain reliever), prescribed for conditions such as wounds, burns, shingles and musculo-skeletal injury.

Jury still out

Medical experts remain undecided as to the clinical utility of St John's Wort despite a *British Medical Journal* review of 23 short-term clinical studies which support claims of efficacy in mild to moderate depression (Linde *et al* 1996). Its therapeutic efficacy has been reported in many peer-reviewed journals. However, this has been challenged by a recent study conducted at the South London and Maudsley NHS Trust and at Homerton University Hospital which analysed all previously published reports on *Hypericum* (Werneke *et al* 2004). By treating individual trials as one, the study shows that St John's Wort is only marginally more effective than placebo overall. Moreover, the authors conclude that it may be less effective in the treatment of depression than originally assumed, particularly when its effects lessen over time as bigger and better studies are conducted. The list of drug interactions is quite long and varied but includes oral contraceptives, digoxin, anticonvulsants and cyclosporin, amongst others. A recent report published in the *British Journal of General Practice* warns that St John's Wort reacts dangerously with warfarin, a commonly prescribed drug within clinical medicine (Smith *et al* 2004). The prescription of *Hypericum* is strictly contraindicated in patients who are on drugs that induce the cytochrome P₄₅₀ enzyme system in the liver, particularly those prescribed for HIV infection such as the protease inhibitors and the non-nucleoside reverse transcriptase inhibitors.

Additionally, it is contraindicated in patients with serious depression accompanied by psychosis and in those at risk of self-harm. It is occasionally considered in adjunct therapy although a certain caution is applied. Equally caution is advised in patients on SSRIs as it may cause 'serotonin syndrome', an adverse herb-drug interaction characterised by an altered mental state and accompanied by autonomic dysfunction and neuromuscular abnormality as a result of increased serotonin availability in the CNS. Symptoms include confusion, fever, shivering, sweating, diarrhoea and muscle spasms. Interestingly, this has also been reported with concomitant use with some MAOIs.

Side effects may include mild nausea, GI upset, photosensitivity and fatigue, but unlike conventional antidepressants it does not affect libido or impair the ability to experience orgasm. The recommended daily dose for depression is 900mg of the extract split into three doses of 300mg. Herbalists often prescribe *Hypericum* in combination with other herbal nervines as part of an overall treatment plan. The maximum weekly dose of fluid extract is stipulated as 50ml. Effects can be seen as early as two weeks from commencing treatment but it is advisable that a consultation with a qualified and registered practitioner of herbal medicine is sought prior to any self-medication.

Empirical science may not value the synergy of AC that lies at the heart of herbal medicine and may cast doubt on its usefulness in clinical practice, but what is clear is the enormous benefit that it brings to numerous sufferers who simply cannot do without this wonderful herb in a society where depression is such a widespread mental health problem.

Yaso Shan MNIMH, consultant medical herbalist, is based at the Brackenbury Natural Health Clinic and can be contacted on 0208 741 9264 or visit www.centellaherbal.co.uk for more information.

References

- Linde K *et al* (1996) St John's Wort for depression – an overview and meta-analysis of randomised clinical trials. *British Medical Journal*. 313, 7052, 253-258.
- Smith L *et al* (2004) Co-ingestion of herbal medicines and warfarin. *British Journal of General Practice*. 54, 503, 439-441.
- Townsend M (2004) Stay calm everyone, there's Prozac in the drinking water. *Sunday Observer*. 8 August.
- Werneke U *et al* (2004) How effective is St John's Wort? The evidence revisited. *Journal of Clinical Psychiatry*. 65, 5, 611-617.