

George Smith continues his series on complementary and alternative medicines



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Herbs in Medicine

KEY POINTS

Herbal medicines contain substances of plant origin and in general are available as over-the-counter products, not subject to close regulation. Whilst many valuable drugs have been identified, purified, evaluated for risk/benefit and eventually synthesised from plants, the effectiveness of most herbal medicines is still unproven and concerns about toxicity and drug interactions are real. In addition the history of the origins and present practices of the many varieties of herbal medicine indicate that they are rooted in and still associated with non-Christian belief systems. Christian doctors should be cautious about herbs both from a Christian and medical perspective.

Investigation into the use of herbs in medicine is a vast subject. Even the descriptions used - phytotherapy, herbal medicine, herbalism, traditional and natural medicines - are confusing, meaning different things to different people. Herbal reference books may add to this confusion by including natural products such as vitamins, minerals and diet supplements, which are essentially foods, but can be therapeutic in some cases of deficiencies and disease. Herbal medicines contain substances of plant origin where all or part of the plant is used to produce an infusion, medicine, tablet or application. Herbal pharmacopoeias may include hundreds of remedies, from aloe vera, through garlic, ginkgo biloba and ginseng to ziziphus jujuba.

A significant number of plants and herbs originally provided natural sources for extremely valuable drugs that have now been identified, purified, evaluated for risk/benefit and eventually synthesised. These include digitalis (foxglove), aspirin (willow bark), morphine (poppy), quinine (cinchona bark) and antibiotics such as penicillin.

Definitions

Herbal remedies can conveniently be described as over-the-counter products, not subject to close regulation and obtainable from pharmacies and health food stores without specific diagnosis or prescription from a health professional. Around five million people in the UK use these products regularly.

Herbalism (herbal medicine) as an alternative medical therapy is defined as the use of plants or substances derived from them, in treating disease, usually by medical herbalists without an orthodox medical qualification. Before the relatively recent application of scientific method into diagnosis and

therapeutics, traditional medicines were mostly herbal. More than 1,500 herbalists practise in the UK at present.

Origins

From the earliest times, whether by accident, through inspiration or in desperation, plants have not only provided food, cosmetics and embalming ointments, but also a plethora of easily available remedies for the maladies of mankind. The use of treatments based on plants developed across the world, usually with strong religious associations.

Traditional Chinese Herbal Medicine is based on Taoism and the principle of balancing chi, the universal life force or energy; Ayurvedic Indian medicine has strong Hindu associations involving chakras (energy centres); North American Indian traditional medicine was practised by Shamans and linked to spiritism.¹ South American civilisations (the Mayas, Aztecs and Incas) had closely interrelated herbal medicine and religious traditions. English herbal medicine, certainly when practised by Culpeper, the modern pioneer of Western herbalism, had strong astrological connections.

Archaeological findings of medicinal plants have been found in ancient Iraqi burial sites but the first written pharmacopoeia occurs in the Egyptian *Ebers Papyrus* c 1500 BC. The Indian Vedas (poems also c 1500 BC) listed plants with medicinal actions.²

Although the early use of herbal preparations was often associated with the mystical and magical, Hippocrates (460-377 BC) appears to have attempted a more scientific approach. Galen (130-200 AD), physician to the Emperor Aurelius, recommended herbal preparations to balance the four humours of the body.

A *Doctrine of Signatures* evolved which suggested that the medicinal value of certain herbs was divinely signalled by their resemblance to the conditions or organs they treated. Pilewort was used because its knobby tubers resembled haemorrhoids. Similarly, the spotted pattern of Pulmonaria was suggestive of lung tissue and so was used for respiratory problems.³

The popularity of herbalists and herbal medicines continued to wax and wane in conflict with orthodox medicine. Nicholas Culpeper (1616-1654), described as an astrologer/physician, rebelled against the horrific medical practices of his day such as purging and blood letting. He fought for the acceptance of natural herbal medicines but emphasised astrological influences that he believed controlled them.⁴ Culpeper produced his first pharmacopoeia or *Herbal* in 1652. The National Institute of Medical Herbalists (NIMH) was formed in 1864, an attempt to regulate British herbalists and their medicines.

Over the next 150 years scientific research and development moved rapidly, leading to more exact knowledge of therapeutics and evidence based medicine. There are now university courses in phytotherapy, leading to a BSc in herbal medicine. Yet there is still a wide gap between herbalism and orthodox therapeutics.

Medical checklist

Does it work?

This is extremely difficult to assess. Whilst many active chemical constituents can be identified, standardisation of unrefined medicines from plants is complicated, making scientific evaluation and clinical trials difficult. Little reliable scientific information exists although reference books are available to advise on efficacy and safety. The powerful placebo effect must always be considered.

There have been attempts to perform scientific investigations into some popular herbal products. The *Desktop Guide to Complementary and Alternative Medicine* reviewed investigations into 44 such products but did not find any convincing evidence of efficacy. For example, the popular evening primrose oil '...has not been established as an efficacious treatment for any condition'.⁵ There is little evidence of significant benefit from echinacea.⁶ Another 60 medicinal herbs are listed where there is insufficient evidence to make useful assessments. Recent investigation by the National Cancer Institute showed no evidence to support the suggested beneficial effect of viscum alba (mistletoe) for cancer.⁷

Is it safe?

It is commonly believed that all herbal medicines and natural substances used as remedies must inherently be safe. Brief references, however, as to the toxicity of some plants (for example, Deadly Nightshade, certain fungi and berries) show this to be a fallacy. Interactions with other drugs can also be harmful: 78 herbal products may react with heart medication, 58 with anti-coagulants, 35 with diabetic medication and 9 with oral contraceptives. Some

products interfere with the accuracy of diagnostic tests and 64 drugs and food supplements require therapeutic monitoring, generally unavailable to non-medically qualified herbalists.⁸

A recent article in the *British Journal of General Practice* emphasised these safety concerns, particularly in relation to reactions between anticoagulants and herbal preparations.⁹ Whilst there is some evidence that St John's Wort (hypericum) is reasonably effective in mild to moderate depression, there are increasing concerns about its safety, particularly in UK, Japan and Canada. It has now been banned in France.¹⁰

The results of a five-year survey by the Medical Toxicology Unit at Guy's & St Thomas' Hospitals highlighted possible links between many herbal products and adverse reactions. Earlier this year the World Health Organisation issued a warning against the unregulated and often unsafe use of alternative medicines including herbal medicines and food supplements.¹¹

Christian checklist

Can it be recommended with integrity?

So far, investigation into the vast majority of these products has produced little evidence for their efficacy but has raised many safety concerns.

What are its roots?

History of the origins and present practices of the many varieties of herbal medicine indicate that they are rooted in and still associated with non-Christian belief systems.

Are there spiritual dangers?

Belief in the healing properties of plants, part of God's creation, is naturally attractive to Christians but we must not ignore experience and reason. A scientifically evaluated active ingredient of a plant is surely safer than the unrefined original preparation.

Whilst plants in themselves have no specific spiritual influence, the religious beliefs of the practitioner (particularly Traditional Chinese Medicine, Ayurvedic Medicine and New Age therapists) can be spiritually harmful.

Biblical references to herbs and spices almost exclusively relate to their use in food preparation, anointing and embalming rather than their healing properties.

Conclusion

Although many herbal preparations contain therapeutically active ingredients, these are too variable to be used with confidence, and harmful side effects are well documented. From a medical standpoint, the use of herbal medicine does not, in general, reach the high standards of clinical excellence now required. From a Christian perspective, the roots of the therapy and the therapist's belief system also raise serious concerns.

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