Arnica's bruised reputation

By Philip Bates

The alpine plant *Arnica montana* is a popular herbal and homoeopathic remedy because of its renowned anti-inflammatory properties for bruising and soft tissue injury. It also has a reputation for being useful after various types of surgery. However, the effectiveness of arnica was called into question by a recent and well reported study that claimed oral homoeopathic arnica was no better than a placebo in patients undergoing surgery for carpal tunnel syndrome (*JR Soc Med* 2003;96:60–5). Taking 30C (high potency) or 6C (low potency) arnica did not reduce post-operative pain, swelling or bruising compared with the placebo group. It was concluded that the popularity of homoeopathic arnica is due to enthusiastic reporting by patients who use it and improve quickly but not by those patients for whom it made no difference. The researchers hoped that the study would "help people to look for more effective treatments and save money by not buying homoeopathic arnica".

The major scientific objection to homoeopathy is that the potency of remedies increases with dilution which may result in not a single molecule remaining in the most potent dilutions. It is extremely controversial how a "non-existent" entity can exert some as yet unexplained holistic effect on the body. Although the principles of homoeopathy may be unfeasible to scientists, it remains to be seen if there is some unknown phenomenon at work. The American illusionist James Randi has offered a million dollars to anyone who can scientifically prove that homoeopathy works.

WHAT PROOF IS NEEDED?

One argument for establishing hard scientific evidence for homoeopathy is that, to be available on the National Health Service, product effectiveness has to be scientifically proven. Randomised clinical trials of drugs are used as a tool to assess their cost-effectiveness in practice. Homoeopathy has a place in medicine despite often failing the scientists' gold standard of the randomised control trial. Reviews of clinical trials on homoeopathy are equally split between some that are supportive and others that suggest it is merely due to the placebo effects. It is therefore important to obtain more scientific evidence to justify the use of homoeopathy. Although clinical trials may be considered to be a robust method for testing homoeopathy in the real world, disproving homoeopathy by a clinical trial in one specific situation does not disprove homoeopathy per se as being useful for individuals who use this form of treatment in situations where they have found it to work in the past.

Pharmaceutical companies are competing to invent new drugs, often for new conditions, using the clinical trials mechanism with the aim of claiming scientific validity and superiority over an existing drug. Although it is clearly desirable to strive continually to improve existing drugs it is also questionable whether the general proliferation of "me-too" drugs is of any real benefit to public health and value for money to the NHS. Clinical trial evidence is useful to establish effectiveness but it can also be used as a means to an end, particularly when there is a strong motivation to introduce profit-earning drugs on to the market. On the other hand, homoeopathy is a large and profitable business itself and homoeopathic manufacturers would welcome favourable evidence from clinical trials if it were able to provide scientific validity for the use of its products.

MEDIA REPORTING

There is an element of public mistrust in science, particularly towards medical matters that are reported in the media in an attempt to influence health behaviour and choices. The public is subjected to health stories that are often inaccurate, illogical and contradictory. A general example was the recent newspaper reporting of a one unusual finding highlighted from a large epidemiological study that suggested those men who do not shave daily and have stubble are statistically 70 per cent more likely to have a stroke than men who do shave daily. Men were probably confused by this information and they may choose to ignore any message accompanying the reporting of health stories portrayed in a way that is attention-grabbing and whose usefulness is difficult to understand.

An anomaly in the media reporting of the arnica study was in television coverage showing a patient who was using herbal arnica cream whereas homoeopathic strength tablets were tested in the clinical trial. The implication that emerged from this reporting of the research was to discourage the use of arnica in general. However the only realistic conclusion that could be justified by the study in question was that arnica did not have any benefit over placebo for carpel tunnel surgery alone. Furthermore, the distinction between herbal and homoeopathic arnica was blurred and categorised in the media under the general terminology of "natural", "complementary" or "alternative" remedies.

Furthermore, scientific disproval of homoeopathic remedies like arnica will reinforce the "alternative" nature of homoeopathy which may be attractive to patients disillusioned by mainstream medical treatment. Researchers that have an agenda to discredit homoeopathy may find their efforts counterproductive and only serve to strengthen the position of homoeopathic practitioners. In an increasingly technological world where the body is dehumanised and medically analysed as a piece of machinery that can be surgically operated on and modulated by powerful drugs, there is a romantic but influential notion that homoeopathy can holistically promote our own healing process from within. Perhaps the success of homoeopathy is related to its holistic, sympathetic and patient-centred approach. There is a strong faith and loyalty to homoeopathy in those patients who use it and homoeopathy has powerful advocates, such as the Prince of Wales. Can the same be said of mainstream medicine?

IS ARNICA HEADING FOR A FALL?

It may be claimed that doctors and pharmacists should not ethically prescribe or sell homoeopathic remedies on the basis that there is no scientific proof for their effectiveness and to do so would mislead the public. Many doctors and pharmacists do believe in homoeopathy and have personally experienced its effectiveness. It is problematic exactly how pharmacists should use information from this clinical trial of arnica and homoeopathy in general if they have not personally experienced this type of treatment. It is only unethical recommend a product misleadingly if it is known to be ineffective or harmful. For example, could it be construed as misleading if pharmaceutical companies advertise in the media and within pharmacies some often over-exaggerated claims for "scientifically-proven extra-strength" cures for influenza when in reality these products contain little more than paracetamol or ibuprofen?

Faith in homoeopathy is unlikely to crumble with the publication of confounding clinical trials. It will continue to have its devotees, whether this is because of a mistrust and failure of mainstream medicine, an interest in the alternative, or because they have repeatedly found that homoeopathy actually works for them. Modern pharmaceuticals are a product of scientific development and tested by randomised controlled trial, whereas homoeopathic remedies are designed with an emphasis on individual treatment. We should welcome more research that is balanced and in areas where homoeopathy works rather than where it fails. Distinctions between herbal and homoeopathic medicine must be made clearer with less generalisation and with comments on policy and advice fully justified by the research results.

Dr Philip Bates is a locum community pharmacist based in Southampton