An evidence-based review of alternative therapies

# Oscillococcinum: A Flu Treatment

Mel Borins, MD, CCFP, FCFP







Anecdotally, a number of my patients have told me that they use oscillococcinum whenever they get viral symptoms. They strongly believe it helps them recover more quickly and with less intense symptoms.

# Homeopathy vs. placebo

There is controversy over the effectiveness of homeopathy. Generally, the quality of clinical research is poor. However, there are many meta-analyses of randomly-assigned controlled clinical trials showing that the effects of homeopathy are not on the basis of placebo.

In 1991, Kleijnen, et al assessed the methodologic quality of 107 controlled trials in 96 published reports. There was a positive trend, regardless of the quality of basophils by acting on H2 receptors, demonstrating the trial, or the variety of homeopathy used. Of 105 tri- that diluted solutions can perform similarly to concenals, 81 trials indicated positive results, whereas 24 trials revealed no positive effects of homeopathy. The authors concluded that there is a legitimate case for further evaluation of homeopathy.1

In 1997, Linde, et al did a meta-analysis of 89 placebo-controlled, randomly assigned, doubleblind studies. They found that the positive results were due to the homeopathy studied. Positive outcomes were found in many different clinical conditions, ranging from allergy, dermatology, gastroenterology, to neurology and anaesthesiology.<sup>2</sup> Linde and Melchart later analyzed 32 trials and found that in 19 placebo-controlled trials, individualized homeopathy was significantly more effective than placebo. When the analysis was restricted to the best trials, no significant effect was seen.3

In 2000, Cucherat, et al4 identified 118 randomized trials. Sixteen trials fulfilled the inclusion criteria and (the p values) were highly significant (p = 0.000036). However, studies of high quality were more likely to be negative than lower quality studies. Cucherat concluded that there was some evidence demonstrating that homeopathic treatments were more effective than placebo; however, the supporting evidence was low because of the low methodological quality of the trials.

In contrast, Ernst<sup>5</sup> (2002) and a controversial analysis by Shang, et al<sup>6</sup> (2005) believe that there is no evidence that homeopathy is better than placebo.

The problem with doing any scientific evaluation is that it cannot be done according to symptoms or diseases. Every remedy given is individialized and patients would get entirely different remedies depending, not only on their symptoms, but on what aggravates those symptoms and the qualities of the patients themselves. Blinded multi-centred research7 done at four centres showed that high dilutions of histamine (10 neg thirthieth to 10 neg thirty-eighth) similar to homeopathic dilutions, inhibited the degranulation of trated substances.

### Oscillococcinum

Oscillococcinum is a patented homoeopathic preparation manufactured from wild duck heart and liver which are said to be reservoirs of influenza viruses. An extract of the liver and heart is prepared, shaken in a test tube and then poured off. A hydroalcoholic solution is then added to the test tube to dilute the drops remaining on the sides of the glass. This is again shaken and poured off and the process is repeated a total of 200 times. The resulting medicine is so diluted that a typical dose does not contain even a single molecule of the active ingredient. It is commercially available overthe-counter at health food stores and by some pharmacists in Canada. It is a very popular remedy in France.

#### Research on oscillococcinum

In 1989, Ferley, et al<sup>8</sup> gave 237 patients oscillococcinum while 241 received a placebo. Patients recorded their rectal temperature twice a day and the presence or absence

## **Complementary Medicine**

of five cardinal symptoms:

- · headache,
- stiffness,
- lumbar and articular pain and
- · shivers, along with
- cough,
- · coryza and
- fatigue.

Recovery was defined as having regained a rectal temperature < 37.5 C and a complete resolution of the five cardinal symptoms. The proportion of cases who recovered within 48 hours of treatment was greater among the active drug group than among the placebo group (17.1% vs. 10.3%, p = 0.03).

In 2006, Vickers and Smith<sup>9</sup> looked at four randomized controlled trials using oscillococcinum for influenza. The following was observed:

- Patients were generally recruited from primary care.
  Most trials included both children and adults.
  Inclusion and exclusion criteria were often not described
- In two of the four treatment trials, patients had to meet a defined standard for influenza-like syndrome (e.g., rectal temperature > 38 C and at least two of the following symptoms: headache, stiffness, lumbar and articular pain or shivers). Exclusion criteria in these two trials included:
  - duration of symptoms > 24 hours,
  - immune deficiency,
  - previous influenza vaccination or
  - immunostimulant treatment
- The standard of trial reporting was considered poor
- Participants taking oscillococcinum had about a quarter of a day less illness than those on placebo.
   Return to work was about a half-day earlier
- Patient satisfaction was greater on oscillococcinum than on placebo
- Although there was insufficient data to determine the effect of oscillococcinum on concurrent medications, one trial reported decreased use of antipyretic and analgesic medication. Most analyses of individual symptoms favoured homeopathy, though not all reach statistical significance

- Oscillococcinum also reduced temperature by 0.38 C
- Adverse effects were similar in the treatment and placebo groups

The authors concluded that although promising, the data was not strong enough to make a general recommendation to use oscillococcinum for first-line treatment of influenza and influenza-like syndrome. Further research is warranted, but requires large sample sizes

### What to tell patients

Oscillococcinum is an inexpensive, easy-to-take and safe remedy. If patients inquire, then there is no reason to discourage its use. Vickers and Smith suggest that "it is worth taking oscillococcinum even if it is of only very moderate benefit. At a population level, there would be significant social gains." Jonas, *et al*<sup>10</sup> suggested that until homeopathy is better understood, physicians should be open-minded about its value and maintain communication with patients who use it.

#### References

- Kleijnen J, Knipschild P, ter Riet G: Clinical trials of homeopathy. BMJ 1991; 302(6772):316-23.
- Linde K, Clausius N, Ramirez G, et al: Are the clinical effects of homeopathy placebo effects? A meta-analysis of placebo-controlled trials. Lancet 1997; 350(9081):834-43.
- Linde K, Melchart D: Randomized controlled trials of individualized homeopathy: A state of the art review. J Altern Complement Med 1998; 4(4):371-88.
- Cucherat M, Haugh MC, Gooch M, et al: Evidence of clinical homeopathy. A meta-analysis of clinical trials. Homeopathic Medicines Research Advisory Group (HMRAG). Eur J Clin Pharmacol 2000; 56(1):27-33.
- Ernst E: A systemic review of systemic reviews of homeopathy. Br J Clin Pharmacol 2002; 54(6):577-82.
- Shang A, Huwiler-Muntener K, Nartey L, et al: Are the clinical effects of homoeopathy placebo effects? Comparative study of placebo-controlled trials of homoeopathy and allopathy. Lancet 2005; 366(9487):726-32.
- Belon P, Cumps J, Ennis M, et al: Histamine dilutions modulate basophil activation. Inflamm Res 2004; 53(5):181-8.
- Ferley JP, Zmirou D, D'Adhemar D, et al: A controlled evaluation of a homoeopathic preparation in the treatment of influenza-like syndromes. Br J Clin Pharmacol 1989; 27(3):329-35.
- Vickers AJ, Smith C: Homoeopathic oscillococcinum for preventing and treating influenza and influenza-like syndromes. Cochrane Database Syst Rev 2006; 3:CD001957.
- Jónas W, Kaptchuk TJ, Linde K, et al: A critical overview of homeopathy. Ann Intern Med 2003; 138(5):393-9.

**Dr. Borins** is an Associate Professor, Faculty of Medicine, University of Toronto and a Staff Member, St. Joseph's Health Centre, Toronto, Ontario. **www.melborins.com**.