Complementary medicine in the management of diabetes

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This is the fourth of a series of articles looking at the available evidence for complementary medicine relating to the theme topic in *Australian Family Physician*.

Finding a more holistic and natural way to manage chronic conditions is a common reason for many patients to explore complementary therapies. Obviously the most important factor for type 2 diabetes is lifestyle management, particularly exercise and diet; but if these fail there is a need for medical treatment. Is there current evidence to support complementary medicine (CM) for the management of type 2 diabetes? Do these approaches serve as alternatives or adjuncts to conventional care? This article looks at three reviews to help answer these questions.

Herbs do have a traditional use for diabetes management. One antidiabetic drug developed from a herb is metformin, a biguanide made from French lilac (*Galega officinalis*). Ginseng (*Panax spp.*) is best supported by evidence, but problems arise in the research regarding the 'need to develop a basis for standardisation that ties the composition of herbs to efficacy. In absence of such standardisation, the use of herbs in diabetes must be approached cautiously'.[1] Herbs often vary in variety, cultivation, strength, and administration, and hence make it often difficult to extrapolate from a research trial to clinical practice.

A systematic review[2] on the efficacy and safety of herbal therapies and vitamin and mineral supplements for patients with diabetes found 108 trials examining 36 herbs (single or in combination) and nine vitamin/mineral supplements. Of these, 42 were randomised controlled trials and 16 nonrandomised trials. Of these 58 trials, the direction of the evidence for improved glucose control was positive in 76% (44 of 58). Very few adverse effects were reported. Although current evidence is still limited on any particular herb, the best evidence for efficacy is available for *Coccinia indica* and American ginseng. Chromium has been the most widely studied supplement. Other supplements with positive preliminary results include *Gymnema sylvestre*, aloe vera, vanadium, *Momordica charantia*, and nopal. This, along with other reviews emphasises the safety of herbal treatments when prescribed by experienced practitioners. Although adverse events do occur, they are relatively rare compared to many pharmaceuticals. Another important safety issue however, is that patients who are taking CM or seeing CM practitioners still need to monitor their diabetes control and look for complications.

Ayurveda is the traditional healing system originating in India. Some Ayurvedic therapies have been found to be useful for lowering blood glucose in diabetic patients. One review of Ayurvedic therapies yielded 54 articles reporting the results of 62 studies. There is evidence to suggest that the herbs *C. indica*, holy basil, fenugreek, and *G. sylvestre*, and the herbal formulas Ayush-82 and D-400 have a glucose lowering effect and deserve further study.[3] Again, a problem arises because of the heterogeneity of the various treatments studied making it difficult to make definitive statements about any single herb or preparation. Nonetheless, these herbs and formulas may offer potential treatments with low side effect profiles.

In conclusion, lifestyle remains the mainstay of diabetic treatment, however, there is gathering evidence to support the use of CM for type 2 diabetes. It would no doubt be advisable that a general practitioner has some basic training in the use of potentially therapeutic herbs and supplements if they wish to integrate them into their practice. Given such training it would not be unreasonable to offer suitably motivated and informed patients a trial of CM approaches as first line therapy and reserve pharmacotherapy for when control is not adequate. Practitioners should always check for any potential drug-herb interactions and also instruct patients to be diligent with monitoring and review.

Conflict of interest: none declared.

References

1. Vuksan V, Sievenpiper JL. Herbal remedies in the management of diabetes: lessons learned from the study of ginseng. Nutr Metab Cardiovasc Dis 2005;15:149–60.
2. Yeh GY, Eisenberg DM, Kaptchuk TJ, et al. Systematic review of herbs and dietary supplements for glycaemic control in diabetes. Diabetes Care 2003;26:1277–94.
3. Shekelle PG, Hardy M, Morton SC, et al. Are Ayurvedic herbs for diabetes effective? J Fam Pract 2005;54:876–86.

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