

## IMPACT OF ALTERNATIVE THERAPY IN REDUCING BLOOD GLUCOSE ON MIDDLE AGED WOMEN

Dr. K. Devi Mangayarkarasi<sup>1</sup> & Dr. N. Prabhavathy Devi<sup>2</sup>

<sup>1</sup>Research Scholar in Home Science, Mother Teresa Woman's University, Kodaikanal

<sup>2</sup>Assistant Professor, Department of Home Science, Queen Mary's College, Chennai 600004

### Abstract

*The present study was carried out to Impact of Alternative medicine to reducing blood glucose level for middle aged women in the society through Revive of Chinese medical treatment includes Acupuncture, Herbal prescriptions, and Dietary recommendations.*

**Keywords:** *Alternative Therapy, Diabetes Mellitus, Middle aged women*

### Introduction

Traditional medicine is the sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness.[1]

### Complementary/alternative medicine (CAM)

The terms "complementary medicine" or "alternative medicine" are used interchangeably with traditional medicine in some countries. They refer to a broad set of health care practices that are not part of that country's own tradition and are not integrated into the dominant health care system.

### Herbal medicines:

Herbal medicines include herbs, herbal materials, herbal preparations and finished herbal products, that contain as active ingredients parts of plants, or other plant materials, or combinations.

### Alternative medicine:

Alternative medicine is the term for medical products and practices that are not part of standard care. Standard care is what medical doctors, doctors of osteopathy, and allied health professionals, such as nurses and physical therapists, practice. Alternative medicine is used in place of standard medical care. An example is treating heart disease with chelation therapy (which seeks to remove excess metals from the blood) instead of using a standard approach. **Examples of alternative practices include homeopathy, traditional medicine, chiropractic, and acupuncture.** Complementary medicine is different from alternative medicine. Whereas complementary medicine is used together

with conventional medicine, alternative medicine is used in place of conventional medicine. See also complementary medicine, conventional medicine.

#### **Acupuncture:**

Acupuncture is a procedure in which a practitioner inserts needles into designated points on the skin. Some scientists believe that acupuncture triggers the release of the body's natural painkillers. Acupuncture has been shown to offer relief from chronic pain. Acupuncture is sometimes used by people with neuropathy, the painful nerve damage of diabetes. Plant-based diets (especially whole foods) may successfully prevent, treat, and even reverse type 2 diabetes including in children. Excluding meat, milk, and other animal products and high fat and high protein foods may reduce the risk of diabetes and gestational diabetes by boosting our hormone-binding proteins, helping to prevent obesity, and reducing exposure to arsenic, BPA, dioxins, nitrites, and PCBs. Eggs may be particularly risky - eating only one egg a week may almost double the odds of getting diabetes. Fish, especially salmon, is one of the primary sources of PCBs and other industrial toxins, which may play a role in the development of diabetes.

Indian gooseberries (amla), coffee, soy, flaxseeds, green tea, pulses (dried beans), chamomile tea, purple potatoes, broccoli sprouts, whole grains, vinegar, and beans may be protective. Beans may be especially beneficial when replacing meat or refined carbs, such as white rice. Cinnamon, depending on the variety, it may be either too toxic for consumption at high doses or ineffective at treating diabetes.

Diabetes drugs, on the other hand, have been found to increase the risks of heart attack, heart failure, and death, and regular exercise and weight-loss may work just as well against diabetes. Erythritol is a nontoxic sugar substitute. By eating plant-based and living a healthy lifestyle, 90%-95% of type 2 diabetes is avoidable. Lifestyle medicine can work so well that it may even be able to reverse diabetic retinopathy. If left untreated, diabetes can cause blindness. Untreated type 1 diabetes can even be fatal. Babies fed baby formula seemed to have a higher risk of obesity, type 1 and type 2 diabetes.

#### **What Are Alternative Treatments for Diabetes?**

When a person has diabetes, maintaining excellent blood sugar control is one aspect of disease management, but does not paint the entire picture. In addition to medications, such as insulin injections, patients may choose to use complementary and alternative therapies to better manage their diabetes. These therapies may aim to treat the mind as well as the body. Meal is highlighted.

The blood sugar concentration or blood glucose level is the amount of glucose (sugar) present in the blood of a human or animal. The body naturally tightly regulates blood glucose levels as a part of metabolic homeostasis. With some exceptions, glucose is the primary source of energy for the body's cells,[not verified in body]and blood lipids (in

the form of fats and oils) are primarily a compact energy store. Glucose is transported from the intestines or liver to body cells via the bloodstream, and is made available for cell absorption via the hormone insulin, produced by the body primarily in the pancreas.

Glucose levels are usually lowest in the morning, before the first meal of the day (termed "the fasting level"), and rise after meals for an hour or two by a few millimolar. Blood sugar levels outside the normal range may be an indicator of a medical condition. A persistently high level is referred to as hyperglycemia; low levels are referred to as hypoglycemia. Diabetes mellitus is characterized by persistent hyperglycemia from any of several causes, and is the most prominent disease related to failure of blood sugar regulation. Intake of alcohol causes an initial surge in blood sugar, and later tends to cause levels to fall. Also, certain drugs can increase or decrease glucose levels.

Diabetes, one of the incurable pandemic diseases, is characterized by insulin deficiency and insulin resistance, leading to aberrant homeostasis of glucose, protein, and lipid. Genetic and environmental factors are the primary causes of diabetes. International Diabetes Federation estimated that 400 million people are afflicted with this disease worldwide. However, current oral anti diabetic agents commonly used in orthodox medicine have unmet efficacy and undesirable side effects in patients, which, consequently, can develop cardiovascular diseases, retinopathy, neuropathy, nephropathy, foot ulcers, and so forth. Therefore, there is an urgent need for development of new remedies for diabetes.

World Health Organization estimates that 80% of the world population uses complementary and alternative medicine (CAM) for their primary health care. Therefore, CAM, including medicinal herbs, acupuncture, moxibustion, and other therapies, is an extraordinary source of diabetes therapy. The goal of this special issue was to compile and update the advancement made on basic and clinical research into CAM for diabetes and its complications.

#### **Diabetes in Middle Age = More Problems**

Oct. 27, 2006 - A new study shows a diabetes diagnosis in middle age spells more problems later in life than getting the disease in old age. Researchers say the results suggest that helping people at risk for diabetes delay getting the disease as long as possible may significantly reduce diabetes-related health problems in their golden years. The risk of developing diabetes increases with age, but researchers say that until now little has been known about how age of diagnosis affects diabetes-related complications among the elderly.

Middle age is the period of age beyond young adulthood but before the onset of old age. Various attempts have been made to define this age and it can vary between cultures and historic or previous definitions of this stage of life. This time period in the life of a person can be referred to as middle age. This time span has been defined as the time

between ages 40 to 60 years old. Many changes occur between young adulthood and this stage. There is not a specific age or markers of transitioning between young adulthood to middle adulthood. The maturing process is viewed as completed and gives way to the aging process. The body slows down and the middle aged becomes more sensitive to diet, substance abuse, stress, and rest. Chronic health problems can become an issue along with disability or disease. Approximately one centimeter per decade of height is lost. Emotional responses and retrospection vary from person to person. Experiencing a sense of mortality, sadness, or loss is common at this age.

The mortality rate begins to increase from 45 and onwards, mainly due to health problems like heart problems, cancer, hypertension and diabetes. Still, the majority of middle-aged people in industrialized nations can expect to live into old age.

Treatment of Diabetes with Acupuncture and Chinese Herbs by Subhuti Dharmananda, Ph.D., Director, Institute for Traditional Medicine, Portland, Oregon Diabetes is one of the major American health problems. About 2.2% of all Americans have the disease, 90% of them with the late onset, type 2 or "non-insulin-dependent," diabetes mellitus. Late onset diabetes usually appears around the age of 50 or later, therefore, the incidence rate is quite high among Americans of that age group. Furthermore, the rate at which Americans are affected by diabetes is growing. Despite the major medical advances in rapid and easy monitoring of blood sugar and treatment with drugs (mainly insulin and pancreatic stimulants), diabetes remains a serious problem. The blood sugar regulation that can be attained by standard methods is usually not adequate in avoiding common secondary effects of diabetes, including cardiovascular diseases, degenerative eye conditions, limb pain, ulceration, gangrene, and kidney failure. Thus, it is reasonable to examine other avenues for treating diabetes that may, together with the standard dietary and drug approaches, yield better results. Chinese medicine is one such avenue. Although the incidence of diabetes is lower in China than in the U.S., the disease has been known since ancient times and it has been a subject of clinical research for the past forty years. Chinese medical treatment of diabetes includes acupuncture, herbal prescriptions, and dietary recommendations.

The long history of dealing with this disease in China without modern drug therapy indicates that great effort has gone into alleviating the various symptoms of diabetes by natural methods. In one of the oldest books about Chinese medical theory, the Huang Di Nei Jing (compiled around 100 B.C.), the condition known as xiao ke is mentioned, and this is translated today as diabetes or diabetic exhaustion (the literal translation is emaciation thirst. The description fits that of non-insulin-dependent diabetes mellitus. Two of the traditional herbal formulas most frequently used in modern China and Japan for the treatment of diabetes were described in the book Jin Gui Yao Lue (written around 200 A.D.). One is Rehmannia Eight Formula (Ba Wei Di Huang Tang), originally indicated for

persons who showed weakness, fatigue, and copious urinary excretion soon after drinking water: in some cases, this may have been diabetes as we know it today.

The other is Ginseng and Gypsum Combination (Bai Hu Jia Ren Shen Tang), used more frequently in modern Japan than China; it was indicated originally for severe thirst and fatigue and is considered ideal for diabetes of recent onset. Numerous laboratory and clinical studies have demonstrated that these herb formulas-and several of the individual herbs within the formulas-can significantly reduce blood-sugar levels. In 752 A.D., the distinguished physician Wang Tao published the famous book *Wai Tai Mi Yao*, which was a comprehensive guide to medicine. In it, he mentioned that diabetes was indicated by sweet urine and he recommended the consumption of pork pancreas as a treatment, implying a conclusion that the pancreas was the organ involved in the disease (he also recommended animal liver for night blindness, sheep's thyroid and seaweed for goiter, and other remedies that seemed to anticipate the results of scientific studies that would be undertaken more than a thousand years later). Further, he suggested that the urine of diabetes patients should be tested daily to determine the progress of the disease and its treatment.

Acupuncture therapy has also been applied to diabetes, and virtually all other diseases, for the past 2,000 years in China. Many Americans assume that acupuncture is only suitable for treating pain, perhaps because the initial introduction of acupuncture to the U.S. in 1972 was with flashy stories about analgesia provided by acupuncture during surgery. Indeed, the general opinion here appears to be that acupuncture ought to be used mainly for treating chronic back pain. However, in China, the concept is entirely different. As an example, in the 1994 *Journal of Traditional Chinese Medicine* (published in English in Beijing), there is a report about "Clinical and Experimental Studies in Treating Diabetes Mellitus by Acupuncture." It explains one of many such clinical trials that have been based on traditional methods of treatment that had been expounded in the past. The researchers recruited 60 patients with diabetes and divided them randomly into two groups: the acupuncture group (38 patients) and the control group (22 patients); the two groups were found to be well matched for symptoms and laboratory results (blood and urine tests). Both groups followed a regulated diet during the study, but one group received acupuncture at three points (on both sides of the body, thus six acupuncture needles): one of the forearm (inner elbow) and two on the lower leg with needles retained in place for approximately half an hour. One other point was treated on the back with only brief retention.

Additionally, patients would receive acupuncture at one adjunct point (it could be on both sides), depending on the traditional Chinese diagnosis of the patient based on the ancient yin/yang concept. Electrical stimulation of the needles was used (this method replaces twirling the needle by hand). The treatment was administered once a day for 30 days. For the control group, a well-known herbal pill, *Xiao Ke Wan* or Diabetes Pill, was administered. This pill had been the subject of earlier study and the level of effectiveness

was already established. The patients were not using diabetes drugs during the trial except for 8 patients who required insulin injections. Among the 22 participants who took the diabetes pill, there were 12 cases rated as effectively treated and 8 cases as markedly effective. The definitions of these improvements are as follows: the patients who experienced markedly effective results had their initial symptoms essentially disappear by the end of the one month treatment and their fasting blood-sugar levels had dropped below 130 (or the blood sugar two hours after a meal would be below 150). Further, the 24-hour, urine-sugar content was reduced by 30% or more at the end of treatment compared to beginning of treatment. These patients were not "cured" of diabetes (if they had been, the fasting blood-sugar would usually be below 100), but they showed very evident improvements. For those deemed effectively treated (not markedly effective), symptoms were improved but not gone, and fasting blood sugar levels dropped to below 150 (or two hours after meals below 180), and the 24-hour, urinary-sugar excretion declined by at least 10% from initial values (but not up to 30%). If these standards could not be met, then the treatment was deemed ineffective. It can be seen that the diabetes pill was quite effective, which confirmed what had been established in earlier studies. All but two of the patients showed declines in blood sugar and urinary sugar excretion and improvements in symptoms. More than one-third of the patients had marked improvement. For the 38 participants in the acupuncture group, there were 10 cases rated effective and 25 more cases rated markedly effective by the definitions used above. In other words, nearly 2/3 of the patients treated showed the marked improvement and only three patients failed to respond. The average duration of diabetic affliction among this group was 4.2 years (maximum 15 years). In general, better results are obtained with acupuncture and with herbal therapy when it is started earlier in the chronic disease process rather than later, when many complications may have developed.

Thus, persons who have been diagnosed with diabetes for ten years or more may not experience such dramatic results as the group involved in this study. These results seem impressive, and the research report provides additional background information that explains the outcome. It was shown that the patients receiving acupuncture experienced a small but statistically significant decline in cholesterol, triglycerides, and beta-lipoproteins. The drop in triglycerides was most substantial, with a decline from an average value of 151 at the start to 117 one month later (a decline of more than 20%). There were significant improvements in "nail-fold microcirculation," which is a measurement of blood circulation through capillary beds (poor circulation through these beds is one reason persons with diabetes suffer from skin ulceration). Both these results indicate improvement in the cardiovascular system. Further, among those who were using insulin, the amount needed after the 30 days of acupuncture declined in six of the eight individuals; in two of those cases, the insulin could be stopped altogether.

The authors of the study concluded: "the therapeutic effects of acupuncture on diabetes are similar to those of the diabetes pills, however, acupuncture excels in the prevention of complications, especially cardiovascular diseases." It should be noted, however, that in addition to diabetes pills there are special pills made for treating vascular complications of diabetes, and these may provide benefits similar to those obtained through acupuncture. In the 1994 Journal of Traditional Chinese Medicine, there is an article about "A clinical study on treatment of vascular complications of diabetes with the sugar-reducing and pulse-invigorating capsule.

### **Applying the Techniques Here**

In the U.S., it is uncommon for people to receive acupuncture therapy every day, as was done in the previously described study. Instead, one may undertake a course of therapy with acupuncture once or twice per week. Needless to say, the impact of the intermittent treatment is not as great as with daily acupuncture. However, through the combination of the less frequent acupuncture and the daily ingestion of herbs, one can expect to accomplish similar results to those reported above, at least for persons who have had diabetes for only a few years. Most acupuncturists in the U.S. have not been called upon to treat many patients with diabetes, mainly because of the misconception that acupuncture is not suitable for that disorder. Nonetheless, acupuncturists are in a position to provide expert treatment because the points to be needled are also used (in various other combinations) for treating other disorders. For example, the acupuncture point zusanli (called Stomach 36; located on the lower leg) is one of the most commonly used points for chronic diseases and is used especially when the disease is obviously affected by dietary factors. Acupuncturists can also determine from their training and experience with treating other disorders whether or not it might be better to select alternative acupuncture points for a person's unique situation in place of the ones mentioned in the research paper.

The selection of herb materials for treatment of diabetes and its complications are described in great detail in publications of the Institute for Traditional Medicine (available to all acupuncturists), and several formulations are readily available as tablets, pills, or granules (the latter are dried herbal teas that are swallowed down with a glass of water). The Xiao Ke Wan and Sugar-Reducing Pulse-Invigorating Capsule used in the previously mentioned studies are not exported to the U.S., but comparable formulas are used here.

There are currently about 7,500 licensed or certified acupuncturists in the U.S. (with 30 states plus the District of Columbia providing licensing), and about 6,000 of them also prescribe Chinese herbs. The Institute for Traditional Medicine maintains a listing of several hundred practitioners who are experienced and have access to its resources of Chinese medical information. The typical course of acupuncture therapy for diabetes is a minimum of ten treatments (two treatments per week to start; but may be continued

afterwards at the rate of one treatment per week, or as needed). As part of its ongoing research and charitable activities, ITM offers persons in the Portland area a low cost treatment program for diabetes.

### Conclusion

Normal blood glucose level is 80 - 120/100ml in any normal human person. When it increases it amounts to high sugar level which is hyperglycemia and decreases it is low sugar level which is called hypoglycemia. There are many ways to address this metabolic disorder though there is a traditional and conventional method to tackle this problem viz. allopathy. It seems to be fast and more immediate and has got many more side effects. At this juncture, we need to take into consideration that there are also other methods which are more effective and fast-growing methods which are called 'alternative therapy.' Of all the different alternative therapies 'acupuncture' stands out to be one of the best and most effective methods which has no side effect and aims at complete control. Acupuncture is nothing but the conversion of magnetic energy into oxygenated energy in blood. In this article we concentrate on females aged between from 40 to 60 because they are more prone to chronic and acute disease especially to diabetes. Acupuncture deals with diabetes in a very powerful and effective manner for it doesn't need much stress on the part of the diabetics. So much so, acupuncture relieves of much stress and tension on the part of diabetics.

When a person, affected by Diabetes Mellitus (DM) his/her pancreas doesn't secrete the Insulin because of which conversion of glycogen is not possible in tissues but remains as glucose in blood. This is what causes DM. In the case of acupuncture, there is so much of rejuvenation in pancreas and converts death cells into lively tissues. Thus, acupuncture is the best way to address the problem of DM. Prevention is better than cure. And so, let us get to know more about acupuncture and alternative medicine and start using this miraculous method to drive away DM and make the world free of DM.

### References

- <http://www.who.int/medicines/areas/traditional/definitions/en/>
- Michael Greger M.D. · Last Updated on May 31, 2016
- Written by Rachel Nall, RN, BSN Medically Reviewed by Peggy Pletcher, MS, RD, LD, CDE on July 8, 2014
- Daly, Mark E; Vale, C; Walker, M; Littlefield, A; Alberti, KG; Mathers, JC (1998). "Acute effects on insulin sensitivity and diurnal metabolic profiles of a high-sucrose compared with a high starch diet"(PDF). *Am J Clin Nutr.* American Society for Clinical Nutrition. 67 (6): 1186- 1196. PMID 9625092. Retrieved 2011-02-19.

- Van Soest, P. J. (1994). Nutritional ecology of the ruminant. 2nd Ed. Cornell Univ. Press, ISBN 080142772X.
- Young, J. W. (1977). "Gluconeogenesis in cattle: Significance and methodology". Journal of Dairy Science. 60 (1): 1-15. doi:10.3168/jds.S0022-0302(77)83821-6.PMID 320235.
- Rosemary Walker & Jill Rodgers Type 2 Diabetes - Your Questions Answered, Dorling Kindersley, 2006,ISBN 1-74033-550-3.
- Volume 2015 (2015), Article ID 685248, 2 pages <http://dx.doi.org/10.1155/2015/685248>
- Feldman, Robert (2015). Discovering the life span. Boston: Pearson. ISBN 9780205992317.
- "Archived copy" (PDF). Archived from the original (PDF) on April 14, 2016. Retrieved May 6, 2016.
- "Heart Disease and Stroke Statistics—2015 Update". Circ.ahajournals.org. Retrieved 2016-06-15.
- Anne Case; Angus Deaton. "Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century" (PDF). Pnas.org. Retrieved 2016-06-15
- "Products - Data Briefs -Number 193 - March 2015". Cdc.gov. Retrieved 2016-06-15
- "CDC - Rate by Age - Diagnosed Diabetes - Data & Trends - Diabetes DDT". Cdc.gov. 2015-12-01. Retrieved 2016-06-15.
- [http://googleweblight.com/?lite\\_url=http://www.itmonline.org/arts/diabacu.htm&ei=bn2n2wv5&lc=en-IN&s=1&m=472&host=www.google.co.in&ts=1473724283&sig=AKOVD65JsIPAToyxdLZLJvlbwVlmrj6hDw](http://googleweblight.com/?lite_url=http://www.itmonline.org/arts/diabacu.htm&ei=bn2n2wv5&lc=en-IN&s=1&m=472&host=www.google.co.in&ts=1473724283&sig=AKOVD65JsIPAToyxdLZLJvlbwVlmrj6hDw)