

CASE STUDY

Normalization of Blood and Urine Measures Following Reduction of Vertebral Subluxations in a Patient Diagnosed with Early Onset Diabetes Mellitus: A Case Study

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ABSTRACT

Introduction: Diabetes mellitus is a serious condition which affects the broad spectrum of chiropractic patients.

Objective: A case history of a patient successfully treated with chiropractic manipulations, dietary modification and exercise for altered glucose levels secondary to diabetes mellitus.

Intervention: Treatment consisted of sacro occipital technique, occipital fiber diagnosis and treatment, and bloodless surgery or chiropractic manipulative reflex technique (CMRT) for the pancreas and adrenal glands.

Results: Within one month of treatment his glucose blood and urine levels had normalized and remained stable.

Conclusion: Future research is necessary to determine what percentage of patients with diabetes mellitus might benefit from a combination of chiropractic care, dietary modifications and exercise.

Key Words: *Chiropractic, Sacro Occipital Technique, Diabetes Mellitus, Bloodless Surgery, Chiropractic Manipulative Reflex Technique, CMRT, SOT*

Introduction

Diabetes Mellitus is described as a “syndrome resulting from a variable interaction of hereditary and environmental factors, and characterized by abnormal insulin secretion, inappropriately elevated blood glucose levels, and a variety of end organ complications including nephropathy, retinopathy, neuropathy and accelerated atherosclerosis.”¹ Diabetes Mellitus is broken down into two “types.” Type 1 is characterized by beta cell destruction and has both an immune-mediated and idiopathic form. Type 2 is a term for individuals who have insulin resistance usually associated with a deficiency, with various possible ranges of resistance or deficiency.²

Impaired glucose homeostasis, called “impaired fasting glucose” is defined as a “fasting plasma glucose” of greater than or equal to 110 mg/dl, but less than 126 mg/dl.”² There are three methods of diagnosing diabetes: fasting plasma glucose (the preferred method), casual plasma glucose, and oral glucose tolerance test. “A fasting plasma glucose value greater than or equal to 126 mg/dl, confirmed by repeat testing, is diagnostic for diabetes.”²

Patients who warrant close attention and possible testing have the following criteria:

1. obese (equal or greater to 120 percent of desirable body weight),
2. first degree relative with diabetes,
3. high risk ethnicity (African American, Hispanic, Native American, Asian),
4. diagnosed with gestational diabetes,
5. hypertensive (greater or equal to 140/90 mm Hg.),
6. HDL less than 35 mg/dl and/or triglyceride level greater than or equal to 250 mg/dl, and lastly
7. prior test indicating impaired glucose homeostasis.²

Complementary health care for diabetes is being investigated especially as one study indicated, “Medical care for chronic diseases, such as diabetes, is often fragmented and uncoordinated.”³ In a study, which evaluated “semi-structured interviews with clinic patients and postal questionnaires” to general practitioners (GPs / medical) “one hundred patients from three medical outpatient clinics (diabetes, rheumatology, chest)” were selected. They determined that “complementary therapy use was common amongst patients attending hospital clinics and GPs were often asked for referrals to complementary practitioners. There is a need for doctors to be more aware of the scope of complementary therapies to ensure appropriate communication and referral.”⁴ Complementary care involves looking beyond the pancreas when caring for patients with diabetes mellitus.

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There are whole body issues relating to neurological implications, viscerosomatic and somatovisceral, as well as interactions with the endocrine system, nutrition and dietary intake, absorption, and utilization. Chiropractic and other practitioners using manipulative treatments for therapy have found relationships between the spine and viscera. There have been some studies, which have found positive responses to chiropractic and other manipulative care of referred pain syndromes as well as visceral and autonomic nervous system dysfunction.⁵⁻⁵⁴

Although there has not been much literature discussing chiropractic's treatment of diabetes⁵⁵⁻⁵⁹, in one study, it was demonstrated "that reduction of upper-cervical subluxations by NUCCA adjustment resulted in a stabilization of plasma glucose levels during the three-hour fasting period."⁵⁹ In another study two patients were treated with Bennett "Neurovascular Dynamics" (NVD) technique: one patient with juvenile onset diabetes and another with adult onset diabetes. NVD, a chiropractic technique, is purported to restore autonomic homeostasis and was used successfully with these two specific patients in this case study.⁵⁸

Apparently chiropractic care is being sought by patients seeking alternative therapy as demonstrated in a European study. "In a general investigation into alternative health therapies and their relationship to traditional medical treatment, a study was undertaken to evaluate the "circumstances of life of 115 families with children aged 0-7 years suffering from asthma, diabetes and epilepsy. One third of the sick children had received alternative treatment. The majority had consulted chiropractors. A tendency was observed towards less satisfaction with medical treatment, information and general guidance concerning the illness among families who sought alternative treatment."⁶⁰

While not directly related to glucose balance another study discussed the relationship between chiropractic care of the secondary affects of diabetes. They concluded that "it is possible that joint and/or myofascial dysfunction may play a role in the susceptibility to diabetic polyneuropathy and that treatment of these dysfunctional conditions may bring about improvement in the neuropathy."⁶¹

Co-treatment of diabetes with acupuncture has been suggested due to Lade who found that, "research done in the United States by the Institute of Traditional Chinese Medicine on diabetes says 'In general, better results are obtained with acupuncture and with Chinese herbs when it is started earlier in the chronic process rather than later, when many complications may have developed'." Their research investigated the affect of acupuncture and with Chinese herbs on the diabetic patient and found that of those studied "one in four individuals could stop all their insulin".⁶²

Dietary concerns are indicated with the chiropractic treatment of diabetes since "Ample evidence exists that relates improper dietary intake to a number of diseases such as arteriosclerosis, hypertension, coronary heart disease, stroke, diabetes and some types of cancer. It is therefore imperative that patients receiving chiropractic treatment be assessed for their nutritional status as well as educated about the impact of nutrition on health, in order to remain healthy and thereby perhaps prevent diseases from occurring."⁶³ Vitamin intake has also been

shown to help with conditions such as diabetes mellitus and particularly Vitamin C has been found helpful.⁶⁴

While there might be various individualized forms of therapy or dietary modification that might aid the diabetic patient, what is needed is a wholistic approach, which does not compartmentalize the patient into a "condition." Diabetes mellitus has multiple possible origins. DeJarnette discussed the relationship of a vertebral subluxation to its ultimate affect on the nervous system. "The subluxation of external effects is not the subluxation of internal effects. The subluxation that produces a brachial neuritis will not be the subluxation associated with a coronary occlusion, although both can involve the same vertebra. When we accept the effects of nerve stimulus upon motor centers in the musculoskeletal system, we can then accept the vertebral subluxation as being the effect of muscular contractions as often as it is the cause of the stimulus producing the muscular contractions."⁶⁵

Whole body dynamics, which can evaluate the musculoskeletal, endocrinological, and neurological viscerosomatic and somatovisceral interrelationships need to be incorporated into any chiropractic analysis and treatment of a patient presenting with diabetes mellitus. Aside from manipulative therapies, co-treatment with allied health care providers can be essential particularly with patients who have advanced pathology. A dietary evaluation that involves laboratory analysis which can perform a vitamin/mineral assay, check essential fatty acids, glucose balance and a comprehensive stool analysis will be essential. This will allow you to have insight about the patient's deficiencies, what pathways are blocked, which foods to recommend, and what the status is of their gastrointestinal system for digestion and absorption.

Case History

A 48-year-old male presented at my office with recent blood and urine studies that indicated early onset diabetes mellitus confirmed by his allopathic physician. Prior periods of fatigue and suspected hypotension, after the laboratory studies, were at the time associated with blood sugar levels. Chiropractic treatment was commenced to determine whether alternative care might be effective in the treatment of his condition and prevent the need for injectable insulin utilization. The patient was concurrently referred to an acupuncturist for co treatment and dietary evaluation.

Intervention

The patient received chiropractic care for treatment of imbalance associated with T6 (pancreatic) and T9 (adrenal) visceral and vertebral interrelationships using sacro occipital technique - occipital fiber analysis⁶¹ and bloodless surgery or chiropractic manipulative reflex technique (CMRT) procedures^{7,13,23,62}. Aside from acupuncture, the oriental medical doctor (OMD) also recommended increased exercise, increase protein intake and specific nutritional supplementation based on his specific needs, which included B complex, Vitamin C, omega 3 oils (flax seed), and glandular supplementations for the pancreas and adrenal glands.

Results

Following one month of care, his chiropractic indicators of subluxation or imbalance had begun to subside along with determination that his blood and urine sugar levels were balanced. The patient had his progress monitored by his allopathic physician and OMD who determined that he would not need insulin at this time, nor apparently in the near future if his condition maintained itself.

Discussion

Sacro occipital technique (SOT) treatment does not look to treat any condition such as diabetes mellitus, but on the other hand investigates and evaluates the patient's presenting symptoms and body distortions. One such diagnostic method particular to SOT is called occipital fiber analysis. "DeJarnette correlated the development of nodules within suboccipital fibers with specific segmental levels of spinal dysfunction. These fibers appear to be near the aponeurosis of the cervical musculature where it attaches to the occiput. He further hypothesizes that these nodules may result from prolonged golgi tendon organ stimulation and various reflex mechanisms resulting from cervical, thoracic and lumbar subluxations"⁶⁶

Also associated with the occipital fiber analysis and treatment are specific treatments for the viscera. SOT has been able to determine how to affect the visceral component of the viscerosomatic reflex arc using methods of treatment called bloodless surgery or CMRT.⁶⁷ When a reflex persists between the occipital fiber and the vertebra, it is evaluated to determine whether there is a neurological input from the organ. There has been a corroborative study, which found a relationship between visceral disease and vertebral deformities at the same sympathetic segments.⁶⁸ If the organ is determined to be involved (laboratory tests, palpation, etc.) then CMRT is employed. Usually CMRT is sufficient to help control the persistent vertebral subluxation occipital fiber reflex, however when it does not then nutritional intervention is usually needed.

With SOT, the patient is analyzed and determined to be in a particular category of whole body distortion. There are three major categories in SOT with a myriad of treatments within each one.⁶⁹ Usually, as the specific SOT indicators subside so will the patient's symptomatology. When this does not occur usually this determines the need for a referral and greater diagnostic intervention.⁷⁰

Conclusion

Diabetes is a far-reaching pathological condition with serious sequelae. It is not clear if chiropractic and allied care which might help balance glucose levels will prevent the side effects associated with diabetes or whether glucose levels are directly responsible for those conditions of nephropathy, retinopathy, neuropathy and accelerated atherosclerosis. If chiropractic care can offer assistance in treatment of 5% of the diabetic conditions commonly presented to health care providers this alone could offer significant life style enhancement for those patients positively influenced. Aside from the lack of need for daily insulin injections, the possibility of decreased secondary affects make attempts at conservative chiropractic care efficacious.

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Figure 1. Occipital fibers are found between the occipital mastoid suture and the inion and broken down into 7 vertical discrete fibers, and three horizontal lines. These lines and fibers are associated with visual and auditory postural ascending righting mechanisms modulated by the upper cervical and suboccipital musculature.



Figure 2. Once the occipital fibers are palpated from lateral to medial and swelling of a fiber with sensitivity is a positive indicator of a possible chronic vertebral subluxation. This patient presented with swelling of the 4th occipital fiber from the superior 1st line to the next inferior 2nd line.

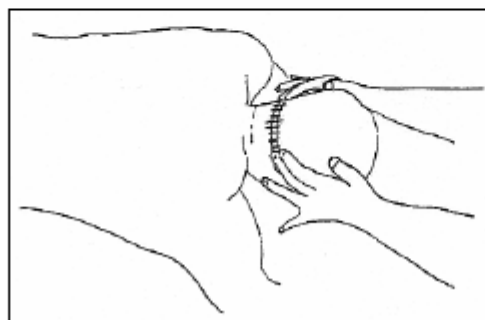


Figure 3. Once the most sensitive fiber is determined by palpation and patient's report, then the related vertebra in the reflex arc is palpated to discover if there is a relationship. One part of the treatment involves transverse friction massage to the active occipital while contacting the sensitive aspect of the specific vertebra awaiting warmth at that contact.



Figure 4. DeJarnette described specific referred pain points on the body with patients presenting with the pancreas occipital fiber – vertebra relationship. As the patient's referred pain point resolved improvement of their somatovisceral/viscerosomatic dysfunction has been found clinically.

