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Research Article

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Polyuria is the Cause of Diabetes Complications

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Abstract

Statement of the problem: *The blood plasma glucose-protein interactions model (the glycation theory) for the study of chronic diabetes complications has failed to find cure. Available data showing that polyuria reduced blood plasma concentrations of thiamine (a vasodilator) in diabetes mellitus patients to 25% of concentration level needed to sustain vasodilatation in the microcirculation of normal healthy persons have been used to propose a new theory.*

Theory: *Polyuria-induced vitamin deficiency in blood plasma causes vasoconstriction in the microcirculation; impairing the exchange of nutrients, gases and particles between blood and tissue causing tissue damage in organs with microcirculation everyday. Over time, the accumulated damage manifests as organ failure described as "diabetes complications".*

Hypothesis: *Supplementation with vasodilators to ensure 24-hour vasodilatation in the microcirculation will halt tissue damage to allow natural healing.*

Methodology and Findings: *A tablet containing niacin, thiamine and calcium-d-pentothenate was prepared and given to diabetes patients in open trial to ingest, one-a-day just before bed, over seven years. Cures reported included early-stage symptoms of chronic complications such as; ulcers, nephropathy, retinopathy and peripheral neuropathy. Continued use after the initial cure has prevented developments of new symptoms.*

Conclusion and Significance: *The multiple cures of chronic complications affecting all organs by the vitamin supplementation demonstrate the validity of the polyuria theory. This is a breakthrough in diabetes research. That the tablet contains, well-characterised substances with no known side effects, is additional bonus. Patients will not require hospital treatment or need supervision by trained medical personnel; thus reducing treatment costs. The therapy itself is not expensive to buy.People with diabetes will not anymore live with the threat of blindness, amputation, kidney failure, stroke and heart problems.*

Keywords: Cure and Prevention, Microcirculation, Vasodilators, Polyuria, Diabetes Complications, Vitamin B

Introduction

The original meaning of the Greek source of the word "Diabetes" [1] was "siphon", because people with the condition "pass water like a siphon". The "water" passed was either honey–flavoured or flavourless; hence the Latin words "**mellitus**" (from mel; honey) and "**Insipidus**" (flavourless, tasteless). It is now known that the "honey flavour" comes from high glucose concentration in the blood plasma that leaks into the urine from the kidney.

So "passing water like siphon" is the event; mellitus and insipidus are merely descriptions of the flavour of the water. "Passing water like siphon" is another way of saying "increased frequency in urination and volume of urine passed". This is the definition of polyuria.

Apart from nuisance value, polyuria has been ignored as having no further influence on the progress of the condition. These days, when the word "**diabetes**" is heard, it is immediately associated with **diabetes mellitus** – a condition associated with high glucose concentration in the blood plasma.

Subsequently, almost all research and clinical efforts are undertaken with this meaning and connotation in mind. It is no wonder that all micro and macro vascular complications associated with the condition are also claimed to be caused by high glucose concentration in the blood plasma. Elaborate theories have been propounded to support this view [2,3]. This may be the case in respect of short-term complications.

It is intended to demonstrate that the long-term chronic complications such as blindness, kidney failure, heart disease, stroke and skin sores that do not heal easily, etc; may have other explanations not

connected with blood plasma glucose at all.

Data from Thornalley et al.

In table 1 is displayed a summary of the essential findings of a study by Thornalley and his associates on the behaviour of thiamine in blood plasma of diabetes patients and healthy subjects in a 24-hour period. Information on factors such as, the racial mix of the experimental subjects; whether the subjects fasted or had regular 3 meals for the day; drank water or other liquids during the day; whether they were confined to bed or allowed to engage in their normal daily activities, etc; during the period, were lacking in the report [4].

In spite of this, the findings are significant because they demonstrate that polyuria reduces plasma concentration of water-soluble thiamine in diabetes patients to 25% of the concentration in non-diabetic, healthy persons at the end of 24 hours.

Even though Thornalley et. al; did not use the term "polyuria" in the analysis of their work, this summary clearly shows the effect of polyuria on the concentration of thiamine in the blood plasma of diabetes patients. In fact, the same group subsequently conducted a clinical trial to show the effect of thiamine on insipient kidney problems and interpreted their findings with the protein-glucose interaction (glycation) theory; completely ignoring the effect of polyuria [5].

Table 1: Summary ofThornalley's work

Category/Thiamine conc. nmol/l	Type 1 (26)	Type 2 (48)	Healthy persons (20)
Initial	100	100	100
After 24 hrs. (Mean) SD	15.4 (9.6)	16,3 (11.5)	64.1 (12.1)

Volume of urine	4 V	3V	V
Th. Urin. Clr.	24X	16X	X

These findings have been used to propose a new theory on diabetes complications. In fact, the theory challenges the prevailing paradigm that insists that diabetes complications are caused by high blood plasma glucose concentration [6].

New theory

If the ratio (15.8/64.1) of retention of thiamine in the blood plasma at the end of 24 hours in the experimental findings is applied to daily, diet-sourced, vitamin B – including vasodilators, niacin and thiamine – the following conclusions can be drawn.

- Polyuria reduces the total concentration of thiamine and niacin (vasodilators) to about ½ of the concentration needed by a healthy non-diabetic person to sustain full 24-hour vasodilatation in the microcirculation. (This assumes that niacin and thiamine act in synergy.)
- During the period of reduced concentration of the vasodilators, there isvasoconstriction in the microcirculation.
- The vasoconstriction impacts adversely on the exchange of gases, nutrients and particles between blood and tissue;
- This results in daily tissue damage.
- Over time, (5-40 years), the cumulative tissue damage results in organ dysfunction – the so-called diabetes complications.

Deductions from Theory

From the postulates of the theory, the following deductions can be made:

- Development of diabetes complications is independent of blood plasma glucose concentration.
- Diabetes complications develop only in organs with microcirculation, e.g. the eye; kidney, heart, brain (nervous system) and skin. This is also the clinical experience.
- All complications in these organs are initiated simultaneously in the patient at the onset of diabetes, but symptoms of DC do not manifest at the same time in all susceptible organs.
- Any therapy that cures/prevents any manifested symptom in any one organ, must cure/preventmanifested symptoms in all of the susceptible organs.
- Breaking or disrupting the chain of events outlined in the theorywill stop or prevent tissue damage.

Flowing from these deductions, the following hypothesis was enunciated.

Hypothesis

If a diabetes patient is given a daily supplementation of minimum concentration of vasodilator(s) to sustain full 24-hour vasodilatation in the microcirculation, tissue damage will stop and damage to organs allowed to heal naturally. This was tested.

Experiment

A tablet, **Fenomin** [5] containing nicotinamide, 15.0mg; thiamine hydrochloride, 12.5mg; calcium-d-pantothenate, 11.0mg, was prepared and, in an open trial, given to patients to ingest one a day, after meals but before bed.

As the tissue damage occurs daily, there was no end time for patients to stop using the therapy. The patients used the tablets till they saw or felt improvement in their condition. The self-reports made to researchers over a seven-year period by over 500 people, are shown in table 2.

The Results

Table 2: Shows some of the self-reports that the respondents gave

Method of blood control/ Complication type.	Non diabeti	T2 no control	T2 metformin	T2 Metf. + Gliclazide	T2 Metf. + insulin	T1 insulin
Swollen ankles/feet normalised	3	5	8	11	5	3
Improved Visual acuity	5	7	10	14	8	5
Feet/toes sore	3	7	15	12	6	12
Gum sore	1		2	2		
Scalp sore				1	1	
Leg sore	2	5	11	8	9	4
Warmed up Cold ands/feet			13	7	2	2
Severe itching in genital area stopped	6		12	7	5	4
Semen production restored			9	10		
Numbness in toes/fingers disappeared	9		12	11	7	
Burning foot syndrome	15	12	21	23	11	4

Table 2: Methods of blood plasma glucose control vs type of diabetes complication healed/cured.

Discussion

The method used to collect the data has been described as "Open Trial". In the trial, the patient identified the symptom that he/she thinks was caused by being a diabetic patient.

Questions have been raised as to the appropriateness of this trial method. It is claimed that it falls short of the gold standard of drug testing – "the placebo controlled double blind" clinical trial. In the Placebo Controlled Double-Blind Clinical Trial, the trial drug has only a probability of curing a particular disease. So there is need to compare with a placebo. Any cures, being stochastic events, are then statistically analysed to enable conclusions to be drawn.

In this Open Trial, the drug used derives from a theory based on empirical experimental evidence. Therefore, the expected outcomes have been theoretically predicted and only a "yes/no" answer is required to validate or negate the theory. "Yes" means validation; and "no" means negation of the theory; 100% cure is the only criterion that validates the theory. So the patients are best suited to observe their symptoms and report; no placebo is required. The results also require no statistical analysis and validation.

Diabetes complications have not been amenable to the traditional methods of treating diseases, so only a limited number of conditions have been identified as diabetes complications. In such a case, it can only be assumed that the patient knows best.

Allowing the patient to identify the symptom has brought out unexpected results. Whereas previously so-called "mildly diabetic" patients who controlled their blood glucose level by diet only were not supposed to suffer complications, it has been demonstrated otherwise in this study.

The first row shows the methods used by patients to control their blood glucose levels. The first column is the nature of complication the patients reportedly suffered from. The 2nd column is the special case where the patients were not even diabetic patients, but suffered symptoms similar to that of diabetic patients. When questioned, they all reported "urinating too much, including waking up more that three times in the night" and also that they came to know about Fenomin tablets through recommendation by friends who had been cured of symptoms similar to their own.

The table shows that the cure of early stage symptoms of diabetes complications by the therapy is independent of blood plasma glucose concentration. Also, the symptoms cured affect all the susceptible organs. No conclusions could be drawn about the brain and the heart as these organs do not show early symptoms of either stroke or heart failures.

The theory recommends that patients continue to use the tablets as long as the diabetic condition remained, however, a large number of patients stopped using the tablets as soon as their ailing condition improved/cured. Some, who stopped for sometime, came back on the tablets after 6-12 months when they felt recurrence of their symptoms or suspected new symptoms of diabetes complications affecting some other organ, manifested.

Some patients, including the author, have used the tablet regularly without break for the past seven/eight years and have not had any new symptoms or recurrence of the initial symptoms they had before using the tablets. They have not reported any side effects from the use of the tablets.

No effort has been made at this stage to explain the nature of the tissue damage or the mechanism of the healing processes. These will be the subjects for future studies.

Conclusion

These results have demonstrated direct connection between polyuria and longterm chronic diabetes complications. The hypothesis has been validated as the fenomin tablets have been demonstrated to facilitate cures of all early-stage symptoms of diabetes complications affecting all the susceptible organs. 100% cures were observed.

It has been demonstrated that diabetes insipidus, though less talked about, may also cause diabetes complications. This makes the current estimates of morbidities and mortalities due to diabetes very low.

Apart from the cures, the assumption that niacin and thiamine are the vasodilators that sustain the integrity of vasodilatation in the microcirculation has been validated. This may have implications for diseases of the brain, such as Alzheimer's or Parkinson's.

Recommendation

The cure and prevention of long-term chronic diabetes complications affecting the eye, kidney and the skin, by a single, cheap, easy to manufacture therapy, is significant. The ingredients are well characterised and known to have no side effects. This is a breakthrough in the search for cure and prevention of long-term chronic diabetes complications. The therapy can be used now to heal sores to prevent amputations, cure retinopathy to stop blindness, etc.

The new paradigm and its implications on the cure and prevention of long-term chronic diabetes complications warrant further investigations. The mechanisms of damage and the cure processes may be worthwhile, but the therapy can be used to treat patients now.

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