

Discovery of distinction of aetiopathogenesis of diabetes of type I. An alternative rehabilitating therapy.

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Since 1921 the method of replacement insulin therapy, offered by F. Banting, a Nobel Prize laureate, and Ch. Best, remains the main remedy for diabetes of type 1. Since the beginning of eighties of the XX century the search of new ways of treatment has been conducted:

1. Creation of an artificial endocrine pancreas
2. Transplantation of a donor pancreas
3. Transplantation of cultures of the insulin-producing beta cells allocated in the special way from a pancreas of the donor.

Problem of treatment of diabetes of type I by endocrinologists wasn't set and will not be set.

In general these ways of treatment of diabetes of type I, as well as the replacement insulin therapy, can be referred, in our opinion, to hormonal "prosthetics" by insulin. Transplantations of beta cells and a pancreas is the most difficult task which hasn't been solved yet because of a common problem of incompatibility of tissues, and the artificial pancreas is still under development.

Meanwhile diabetes becomes one of the growing threats to health of people. The number of patients with diabetes in the world is already about 382 million, and each 12-15 years this number doubles. 15% of all patients are patients with diabetes of type I.

The actual direction is creation of rehabilitation therapy allowing restoring or improving insulin-producing function of beta cells of islets of Langerhans in order to refuse from replacement insulin therapy or at least to reduce insulin doses, which are introduced into an organism. The solution of such task is possible only on the way of profound comprehension of etiology and pathogenesis of diabetes of type I.

Up to 1982 these questions were covered in literature insufficiently. It was considered that the cause of illness consists in genetic functional weakness of cells of islets of Langerhans of pancreas and in the increased load on the pancreas, for example, manifestation of a nervous strain, intoxication and excessive food. We have paid attention to the fact that these representations contradicted known scientific facts, namely they didn't consider frequent connection of developing of a disease with any virulent disease. Spontaneous short-term remissions of a disease arising sometimes at the beginning of the course of diabetes of type I, couldn't be explained as well. It is a so-called "honeymoon" causing recovery illusion in patients.

In 1978-1981 it has been revealed by us that among 80 patients, who caught severe acute diabetes type I for the first time, 72 had an acute respiratory viral disease before diabetes. This observation has led us to a conclusion that local viruses-caused hidden damage of islets of Langerhans is the main reason for emergence of insulin neediness at diabetes of type I. This damage has primary and chronic inflammatory character and is called "insulitis". We have offered a two-stage way of restoration of insulin-producing function of beta cells for treatment of diabetes of type I at short terms of disease: first stage: full compensation of diabetes by diet No. 9 and insulin; second stage: prescription of anti-inflammatory immunosuppressive therapy.

Patent No. 2000782. A priority from 20/5/1982, registered on

15/10/1993. "Way of treatment of patients with diabetes of type I of the initial stage".

Invention formula. The way of treatment of patients with diabetes of type I including injections of insulin and a diet, differing in the fact that for the purpose of reduction of terms of treatment by restoration of insulin-producing function, anti-inflammatory drugs are prescribed additionally against the background of full compensation.

Copyright certificate No. 1152595. A priority from 25/8/1982. "Way of treatment of patients with diabetes of type I".

Invention formula. The way of treatment of patients with diabetes of the initial stage by introduction of insulin and a diet differing in the fact that for the purpose of reduction of terms of treatment and prevention of development of insulin resistance, a sodium salicylate electrophoresis on the area of projection of pancreas with a current of 8-15 mA and lasting 15-20 min is carried out additionally against the background of full compensation.

During development of this way of treatment of diabetes of type I of the initial stage (for acceleration of efficiency of treatment) we, with a priority from 28/6/1984, have proposed a new technical solution: "Way of restoration of insulin-producing function of a pancreas of young patients, who caught diabetes for the first time", the application No. 3756387/13(084723).

Formula of invention application: the way of restoration of insulin-producing function of a pancreas of young patients, who caught diabetes for the first time, including a completely compensating insulin dose, diet No. 9, and differing in the fact that for the purpose of restoration of insulin-producing function of a pancreas, phonophoresis of hydrocortone is applied to the area of pancreas.

The positive solution of examination on the application wasn't received, motivation of refusal: hydrocortisone is the antagonist of insulin, i.e. the expert panel didn't understand the mechanism of medical anti-inflammatory impact on inflammation in islets of Langerhans following from special aspects of etiology and pathogenesis of a disease. Only in 1987 a scientific message, which partially affected the essence of our application for an invention, was published – Secchi A., "Medical abstract magazine", section 20 No. 10, 1987, art. No. 1271 which has applied prednisolone after compensation of diabetes by insulin – it helped to achieve the remission of disease with insulin cancellation, keeping compensation of diabetes.

Application of two-stage treatment of diabetes of type I at different terms among 25 patients (12 of them had a disease duration up to 1 year and 13 – up to 2-5 years from a disease manifestation), has shown that the maximum effect of treatment allowing changing the heavy course of a disease to a light one, reaching compensation only by diet No. 9 and refusing from the replacement insulin therapy, is observed when the disease lasts up to 1 year.

In the subsequent full cancellation of the replacement therapy keeping compensation of diabetes type I during treatment is not possible only by means of diet No. 9: when the disease lasts from 1 to 2 years, the dose of insulin can be reduced to 2/3; when the disease lasts from 2 to 3 years – no more than 1/3 from the initial

dose that is the evidence of gradually developing irreversible changes in insulin-producing function of B-cells. When the disease lasts more than 3 years, the effect of treatment is noted only in 2 patients (duration of observation is 1-2 month). In case of one patient, who has been having diabetes of type I for 8 years – medical specialists managed to reduce the compensating insulin dose from 80 to 12 units a day, preserving compensation.

Our research has shown that existence of a recurrence of a disease after successful two-stage treatment of diabetes of type I of the initial stage isn't the basis for refusal from application of a repeated course of the two-stage treatment including diet No. 9, full compensation by insulin against the background of which anti-inflammatory therapy is applied: it is possible to achieve repeated remission of disease only by diet No. 9 without insulin injection.

In the process of abovementioned research we have found the regularity, which was unknown earlier: anti-inflammatory therapy was capable of elimination of inflammation in B-cells only after achievement of full compensation by insulin injections – it led to restoration of insulin-producing function of B-cells.

Diabetes of type I in the initial stage is kind of a "model" combining the inflammation focus (in islets of Langerhans) and insulin insufficiency, with which an opportunity to find out regularity, unknown earlier, was identified: anti-inflammatory drugs in the conditions of insulin neediness aren't effective, and in the conditions of insulin sufficiency (full compensation) they have a positive anti-inflammatory effect (eliminate inflammations in islets of Langerhans, which is evidenced by restoration of insulin-producing function of B-cells). This regularity, identified by us for the first time, is of great importance in the field of therapy of internal diseases of especially collagenoses, it has found reflection in the following invention: patent No. 2104000 "Way of treatment of inflammatory processes", priority from 30/6/1994.

The optimum period to start the second stage of treatment is 1-2 months after full compensation by a diet and insulin of diabetes of type I. The children's B-cells die especially quickly in case of establishment of diabetes of type I.

The virus-challenged autoimmune nature of a disease demands a long immunosuppressive therapy (the principle is similar to preventive therapy of rheumatism).

A two-stage treatment of patients having diabetes of type I with use of nonsteroid anti-inflammatory drugs, offered by us, is applied in 16 medical institutions (in 14 regional and clinical hospitals, 1 medical unit, 1 CDH) to 221 patients. Age of sick differs from 5 to 40 years, disease duration is up to 5 years. The positive effect is noted in 181 patients (82%), lack of effect – in 40 patients (18%). Working with 20 patients, the doctors managed to cancel the replacement insulin therapy and transfer to treatment with only diet No. 9, with preservation of compensation. In case of other 12 patients – to cancel insulin and transfer to treatment by a diet with Adebit or Maninil. In 96 patients the doctors managed to lower the compensating dose by 60-90% from the initial one. In 53 patients – to lower a dose by 30%.

Data from a number of scientific publications of Russian and foreign authors, published after our priority, confirm essence of our research.

Received experimental data with a priority of 20/05/1982 can be interpreted as follows:

1. Establishes: a new regularity – at the heart of etiology and pathogenesis of diabetes of type I lies a primary and chronic virus-challenged inflammation of islets of Langerhans, which neutralizes insulin-producing function of B-cells.
2. Shows: B-cells don't die with developing of a disease at once, i.e. the damage of B-cells, breaking production of insulin at disease terms up to 1 year (sometimes longer) from manifestation, is of

reversible nature.

3. Proves expediency of application of immune-oppressive and anti-inflammatory therapy at initial stages of disease under an indispensable condition – full compensation by injections of insulin and diet No. 9.

4. Reasons expediency of application immune-oppressive and anti-inflammatory therapy to patients with diabetes of type I when having recurrence of the disease and also for prevention of emergence of recurrence.

5. Gives reasons to use immune-oppressive and anti-inflammatory therapy at treatment of diabetes of type I at the stage before clinical manifestation.

6. Allows a new approach to consideration of etiology of pathogenesis, prevention and treatment of this disease.

7. Shows characteristics, unknown earlier – efficiency of anti-inflammatory and immune-oppressive drugs in the conditions of insulin security and lack of effect at insulin neediness (in particular for neutralization of "insulinitis" in islets of Langerhans).

In addition after restoration of function of B-cells a short course of laevomycetin having an antiviral effect is prescribed. Viruses (poison) have qualities of biological toxin.

Viral diseases are private manifestation of life of uniform virus system.

A virus system has an inherent algorithm of impact on a person (and an animal): viruses encroach on B-cells of islets of Langerhans, interrupt the production of insulin and insulin reception, and mediated carbohydrate, proteins, fat and mineral metabolism, rheology of blood, lymph, spinal fluid, bile and immunity, availability of oxygen for tissues and, first of all, the brain, the quality of thinking decreases at the same time. Thus, the virus system at a minimum of its efforts reaches a maximum of entropy effect on an organism. In the subsequent viruses develop in other bodies and tissues. Viruses are adapted to oxygen starvation.

Viruses exist only intracellularly – in cells "tanks" – conveyors (plasmodium), which help them move and breed in an organism.

Viruses, breaking immunity, contribute to the development of other types of infections.

The virus system carries out a specific goal-setting to interrupt human life, to breed in a corpse and to close the immortal circle of biological rotation in the nature with the help of water.

The revealed regularities, inherent in diabetes and virus system, have allowed scientists to create a new medicine, which is able to destroy viruses for the purpose of treatment and prevention of diabetes of type I. The offered means consists of Siofor + Delagil + acetylsalicylic acid (Patents for invention No. 2391971).

Children very often have diabetes of type I.

When talking about children with short terms of diabetes of type I (about one ½), the application of this medicine at the second stage of treatment, taking into account age doses, causes an expressed clinical rehabilitation of general well-being, functions of pancreas, insulin security. Rehabilitation process is followed by paradoxical temperature increase up to 38-39 °C, which the patient doesn't feel, hyperglycemia and saccharorrhoea which isn't reacting to insulin injections, availability of green bile in stool.

This clinical picture is explained by disintegration at the expense of the restored insulin security and immunity, infectious biomass, containing virus and a lot of glucose which isn't digested and is rejected by cells of body tissues – it is brought out of an organism.

Conclusion

A new regularity of emergence and development of diabetes of type I is identified. It consists in the fact that at an initial stage there is a primary and chronic virus-challenged inflammation of islets of Langerhans of a hidden and often reversible nature, which delayed up to 1 year – concerning manifestations of insulin

insufficiency, leading to degenerate changes in B-cells with irreversible loss of their function.

The virus-containing biomass causing diabetes of type I contains glucose which isn't digested and is rejected by cells of body tissues – it is brought out of an organism.

Literature

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Opening of a role of a "slow" viral infection and violations of insulin system in an aetiopathogenesis of unphysiologic aging of a person and related atherosclerosis, cancer of various localization, schizophrenia, inflammatory processes; prevention and treatment of aging with use of biguanides (metformin).

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Physiological aging of the person allows the person to live 115 and sometimes more years.

Since 1982 in the USSR, and then in Russia we have been carrying out scientific work on definition of an aetiopathogenesis of unphysiologic aging of the person, creation of means and ways of its prevention and treatment and also related diseases: atherosclerosis, cancer of various localization, inflammatory processes, violation of higher nervous activity (schizophrenia, Alzheimer's disease), sight, premature death.

The most important problem of aging of a human body is emergence and progressing of violations of lipid exchange, namely increase of cholesterol, V-cholesterol, triglycerides concentration in blood and decrease of level of d-cholesterol.

As a result of these violations, deterioration of rheology of blood, lymph, spinal fluid and bile develops. Violation of fabric blood supply, hypoxia of fabrics, formation of blood clots, violation of rhythm and conductivity of heart can lead up to death of brain blood circulation and higher nervous activity, intelligence and immunity.

As a result of violations of lipid exchange a chronic disease – atherosclerosis – develops and progresses. It is expressed by atherosclerotic damages of arteries with cholesterol plaques on their inner shell, luminal occlusion, blood rheology; in the result of hemoconcentration promotes appearance of such diseases as myocardial infarction, apoplectic attacks, blood-clotting, premature death; violation of higher nervous activity of a brain.

The efficiency of prevention and treatment of atherosclerosis, cancer of various localization (cancer cells are adapted to hypoxia) a myocardial infarction, an apoplectic attack, blood-clotting, violations of higher nervous activity, schizophrenia, Alzheimer's disease, sight, inflammatory processes, which aren't responding to successful treatment at traditional therapy, depends on the solution of a problem of rehabilitation of lipid exchange with normalization of indicators of cholesterol, d-cholesterol, V-cholesterol and triglycerides.

Approach to the solution of an objective was served by our opening in 1982 of an aetiopathogenesis of diabetes of type I: