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Influential Impact of Diabetes and Hyperlipoidemia Patients before and after Moderate Table Tennis Exercise

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Abstract: The purpose of this paper is to select 50 patients with diabetes and hyperlipoidemia randomly, and divide the patients into two groups of exercise group and control group to explore whether the appropriate table tennis exercise have a positive impact on the patients' quality of life, who has diabetes complicated with hyperlipoidemia, at the same time, can it promote the health of the patient and the establishment of a good mentality, and whether it can achieve the purpose of curing diabetes. The method is to select testers as the inclusion criteria according to the same ratio of gender: Select fifty patients with diabetes and hyperlipoidemia and divide them into experimental group and control group (25 cases in each group, the sex ratio of each group was 1:1).Among them, the exercise group's diabetes patients with hyperlipoidemia use long-term appropriate table tennis exercise in the case of established daily routine. The control group still completed daily physiological activities according to the established schedule. Get current condition data of patients after long sampling and statistics. After that, evaluated the control group and the exercise group separately through psychological and physiological indicators. Analyze and get data by adopting relevant medical indicators, cooperating for a period of time after the end of the experiment, study the health data and exercise time data of random interviews between experimental and control groups, record and save all data. Finally, divide the observation data of the exercise group and the control group in this experiment into laboratory data and clinical data. Statistics and analysis it by using SPSS21.0 statistical special software. Among them, the different data has statistical significance ($P<0.05$). Therefore, the conclusions indicate that moderate table tennis exercise can not only regulate blood sugar balance in patients with diabetes and hyperlipoidemia,at the same time, it can also have a good effect on patients with high blood lipids. And table tennis is a comprehensive physical and mental exercise, It has a good auxiliary treatment effect for diabetic patients with hyperlipoidemia, it is one of the effective means of rehabilitation for the patient. Table tennis plays an important role in improving the quality of life and national physical fitness of patients with diabetes and hyperlipoidemia.

1. Introduction

Diabetes and hyperlipoidemia are among the top 10 diseases that are now increasingly dangerous for humans. Its mortality rate is second only to cardiovascular and cerebrovascular diseases and cancer, and its incidence ranks first among the three major diseases [1-3]. In particular, diabetes is a "rich disease." With the rapid development of China's economy, more and more people are recruited for diabetes. First, diabetes is mainly high blood sugar, and about 50% of patients have polydipsia, polyuria, polyphagia and weight loss (commonly known as three or more). Due to impaired islet function, diabetic patients have insufficient insulin secretion and low insulin sensitivity. Uncontrollable blood sugar, when blood sugar is significantly elevated, acute complications such as diabetic ketoacidosis and hyperosmolar coma can occur, and in the long run, it can cause vascular and nervous system diseases, which will affect the heart, brain, Many organs such as the kidneys, eyes, nerves and skin cause damage [3]. The most terrifying thing is that diabetes is an irreversible disease, which means that diabetes has not been cured so far and can only be alleviated. hyperlipoidemia is also a dangerous metabolic disease that deposits on the walls of blood vessels and gradually forms small plaques, which we usually call atherosclerosis [4]. These plaques enlarge and become larger, gradually clogging blood vessels, slowing blood flow, and severe blood flow interruption [5]. If this happens in the heart, it can lead to coronary heart disease; if it is in the brain, there will be a stroke; if the fundus is obstructed, it will cause vision loss or even blindness; if it occurs in the kidney, it will lead to renal arteriosclerosis and renal failure. In the lower limbs, there will be limb ulcers, necrosis and so on. In addition, hyperlipoidemia can also cause high blood pressure, gallstones, pancreatitis, hepatitis, resulting in male sexual dysfunction, Alzheimer's disease and other diseases, and even induced cancer. It can be seen that hyperglycemia (diabetes) and hyperlipoidemia are very serious diseases, and if left uncontrolled, the consequences are unimaginable. Especially when diabetes is associated with hyperlipoidemia, its harm is even greater.

Currently, patients with diabetes and hyperlipoidemia usually use drugs, and exercise and diet “trinity” treatment is currently the main treatment for diabetes with hyperlipoidemia. Of course, proper exercise can play a good role in the treatment of such diseases, and has been recognized by domestic and foreign society [6]. However, to date, table tennis has not reported interventional treatment for diabetes with hyperlipoidemia. It has the advantages of moderate exercise intensity, strong interest, and comprehensive exercise. Table tennis has low requirements for venue equipment and is also a “national ball”. For patients with diabetes and hyperlipoidemia, high permeability is Very suitable exercise. Among them, exercise therapy is a method of exercise biology, which is divided into biomechanics and related neurodevelopmental directions, which can effectively improve the physical and functional effects of the body and other aspects. Treatments with strength and response as the main factors are mainly used in medicine [7-8]. In ancient times, there were some books describing the treatment of diabetes through exercise. Sui Dynasty wrote in "The Sources of Diseases": Diabetes patients "You should first take 120 steps, then you should take thousands of steps and then eat it."

We all know that patients with diabetes and hyperlipoidemia can promote fat consumption, increase insulin sensitivity, and promote blood sugar and blood lipid consumption. In addition, exercise therapy has a good effect in improving cardiopulmonary function and improving patient immunity. For some patients with diabetes and hyperlipoidemia, moderate exercise can also increase their interest in life and enhance their confidence and fun. At present, from the current research point of view, appropriate exercise amount of exercise therapy can not only effectively treat diabetes and control the development of blood lipids, but the overall educational research is not perfect [9-10]. Many patients have learned that exercise therapy is not a systematic,

decentralized, one-sided exercise knowledge that is difficult to fully promote in practice. Therefore, it is of great significance to study the application of table tennis in the treatment of patients with diabetes mellitus complicated with hyperlipoidemia.

This article is based on a special technical structure, flexible physical requirements and strong entertainment and competitiveness. It is of great significance to improve the quality of life of patients with diabetes mellitus complicated with hyperlipoidemia. On this basis, the study conducted a table tennis exercise intervention for patients with diabetes mellitus complicated with hyperlipoidemia, and the patients were followed up. Provides more effective, simple and easy-to-develop exercise habits for people with diabetes and hyperlipoidemia.

2. Proposed method

2.1. Diabetes with Hyperlipoidemia Patients

Table tennis therapy can reduce the likelihood of obesity leading to diabetes and hyperlipoidemia. through continuous appropriate exercise and increase the activity of enzymes in fat cells. Accelerate the decomposition and consumption of fat, reduce the occurrence of obesity, strengthen exercise, and achieve the desired effect. Forty patients with obese diabetes were divided into intensive exercise intervention group, medium intensity aerobic exercise group and control group. After the exercise group is currently using a lower intensity walk for a period of time, the exercise group will receive enhanced FPG (8.20±0.4) mmol/L before intervention (7.10±0.2) mmol/L, HbA1c from the intervention. 7.6%±0.2% fell to 6.8% ± 0.1%, triacylglycerol decreased from (4.83 ± 0.7) mmol / L (2.7±0.5)mmol/L, while the control group of FPG from the intervention before (8.20 ± 0.5) Mmmol/L decreased to (7.90±0.4)mmol/L after intervention, and HbA1c decreased from 7.5%±0.3% to 7.3%±0.2%, but triacylglycerol did not change much [(4.73±0.3) mmol/L ratio (4.5±0.5)mmol/L, the motivation to strengthen the movement can not only lower blood sugar, but also improve blood lipids, play a role in weight loss, and the effect of low-intensity exercise is more significant.

Complications caused by diabetes include: 1 microvascular disease; 2 macrovascular disease; 3 neurological complications; 4 diabetic foot; 5 other infections. Diabetes-caused complications can be prevented and controlled through standardized exercise therapy. Divided 85 patients with diabetes into 40 groups of patients who could get up (group A) and underwent treadmill exercise. 45 patients could not get out of bed (group B). In the bed, the passive limbs were rotated, and the duration of the two groups was the same. The results showed that the blood homocysteine (Hcy) of group A decreased from (1.5±0.3) μmol/L after exercise (1.1). ±0.2)μmol/L, blood uric acid (UA) decreased from (287.6±36.5)μmol/L to (232.6±25.7)μmol/L, serum cystatin C (CysC) decreased from (1.8±0.5)mg/L At (1.2±0.3) mg/L, the systolic blood pressure decreased from (150±6.1) mmHg to (135±5.5) mmHg, and the difference was statistically significant before and after intervention ($P<0.05$); Hcy from group B (1.6±0.5) Mmol/L decreased to (1.3±0.3)μmol/L, UA decreased from (296.6±39.1)μmol/L to (245.6±28.5)μmol/L, and CysC decreased from (1.9±0.5)mg/L (1.3± 0.3) mg/L, and the difference in systolic blood pressure was not statistically significant. CysC is a low molecular weight, basic non-glycosylated protein that is an endogenous marker that reflects changes in glomerular filtration rate. A decrease in systolic blood pressure indicates that exercise can regulate the motor center in the human brain, reduce sympathetic excitability, enhance excitability of the vagus nerve, change tension, and lower blood pressure.

2.2. Table Tennis Intervention Program

Table tennis is a good exercise for agile speed. Table tennis has the characteristics of small

spherical shape, fast ball speed, many changes and strong technical features. In table tennis, table tennis can fly at an average speed of 20 m / s. Usually, the opponent's fastball can reach the target card in about 0.15 seconds. In such a short period of time, athletes must not only make quick and decisive action decisions, but also use the corresponding technology to counterattack. This requires athletes to have the special qualities of judgment, quick start, fast footwork, fast shooting, fast action and fast tactical decision making. This shows that table tennis is a sport that is very conducive to speed, strength and quick response.

Table tennis embodies freedom, happiness and equal ping pong, which means that everyone can participate, regardless of men, women and children. Deep, shallow and high status, low and belief differences can separate their happiness. It makes people aware of the equal opportunity and freedom of participation, which gives people a deep understanding of the comfort and freedom of table tennis. Once connected, people will be attracted by their unpredictability and boring. It will make everyone like it, and those who own it will experience something rich and loved. Table tennis is conducive to the spirit of struggle. In short, table tennis has a broad mass base and has become an important project for people to carry out "lifelong sports" and university lifelong physical education. Loved by people, it will become the most popular sport for people to exercise and love. In order to enhance the physique of the people, improve the quality of the entire Chinese nation, revitalize the spirit and create new achievements.

(1) Mental indicators

After taking blood on an empty stomach in the morning, the patient sent the blood to the inspection center of the People's Hospital of the city for testing. The test instrument is the Healife automatic biochemical analyzer. Prior to the experimental intervention, the patient's blood collection was monitored uniformly and the patient's blood collection was monitored uniformly after 16 weeks of intervention.

(2) Specific exercise prescription

In order to eliminate possible risk hazards during exercise, 30 subjects in the experimental group underwent a comprehensive physical condition test prior to exercise intervention. The specific exercise prescriptions are as follows: According to the actual situation of the subject and the purpose of the experiment, a table tennis sport with fitness effects and easy to develop exercise habits is selected. A walking exercise is performed for a period of time before table tennis; during the walking exercise, the subject's heart rate is maintained between 120/min and 140/min, and the subject's heart rate changes are regularly monitored during exercise. In table tennis practice, exercise intensity can be controlled according to your own needs or technical characteristics; each exercise lasts about 1.5 hours, that is, 30 minutes of walking exercise and 1 hour of table tennis practice. The specific exercise time is 9:00-10:30 am or 15:00-16:30 pm;

Note: First, the patient should be fully prepared before the start of exercise to avoid muscle damage during exercise; secondly, all patients should wear sports shoes or buy the same style of sports shoes during exercise; third, choose indoors Table tennis, carpets are carpeted, and walks on a playground with a plastic track; fourth, during the entire exercise, there are dedicated medical staff to supervise and respond to emergencies.

2.3. Patient Treatment

Decreased apolipoprotein A-I (apoA-I) and apolipoprotein A-II (apoA-II), resulting in decreased HDL-C levels, HDL clears cholesterol in the arterial wall and its anti-oxidation through reverse cholesterol transport mechanism The role of action inhibits the binding of LDL to endothelial cell receptors. Glycosylated LDL and SLDL in diabetic patients are more susceptible to oxidation than native LDL compared to non-diabetic patients. They stay longer in the blood. Diabetic patients have

atherosclerosis or moderate calcification in the aorta and middle arteries, and the degree of atherosclerotic lesions is heavier. The basement membrane is significantly thickened, the vessel wall is thickened, the glass is degenerated, hardened, and blood pressure is elevated. Some vessel walls undergo fibrotic degeneration and steatosis, and the permeability of the vessel wall is enhanced, and some vessel walls may have thrombosis or stenosis. Causes blood supply disorders, causing ischemia, dysfunction and pathology of the corresponding tissue or organ. Therefore, in the treatment of diabetes, it is important to regulate blood lipids and prevent and treat vascular lesions. In treatment, lowering LDL-C is the primary goal, and lowering and maintaining normal blood lipids is the ultimate goal.

Treatment programs:

(1) General treatment: regulate diet, strictly control diabetes diet, control calorie intake, try to eat low-fat, low-cholesterol foods, strengthen physical exercise, and overcome bad habits such as smoking.

(2) HMG-COA reductase inhibitors: These drugs have a good effect on lowering plasma total cholesterol (TC) and LDL-C, and VLDL-C, apoB and plasma triglycerides are also reduced. In the study of the atorvastatin diabetes cooperative study "CARDS", HDL-C increased slightly, involving 50 diabetic patients between the ages of 40 and 75 years. The total number of deaths decreased by 27%, close to statistical significance, the drug of choice for diabetic hyperlipoidemia, in the application process, should pay attention to the occurrence of adverse reactions, such as myalgia, weakness, creatine kinase (CPK) and other symptoms, such as skeletal muscle dissolution. Try to avoid combinations of erythromycin, cyclosporin and other drugs that aggravate skeletal muscle solubilization.

(3) phenoxy acid drugs: this class of drugs mainly reduced TG, VLDL-C and IDL-C (intermediate density lipoprotein), can significantly reduce plasma glycerol triglyceride-rich VLDL-C, and slightly elevated HDL-C, but the role of LDL-C is uncertain. For example, gemfibrozil may increase plasma LDL-C in patients with hypertriglyceridemia, or LDL-C can reach therapeutic goals after treatment with other steroids. TG>200mg/dl (2.26mmol/L) can be combined with other terpenoids.

(4) Niacin: It is a kind of broad-spectrum lipid-regulating drug. The high dose can decrease the concentration of VLDL-C and TG. After 5-7 days, the LDL-C can also be decreased, while HDL-C is elevated, but it can also cause elevated blood sugar, increased uric acid and abnormal liver function. Whether it is suitable for diabetic patients is controversial.

3. Experiments

3.1. Experimental Data Set

Choose 50 patients with diabetes and hyperlipoidemia.. The patients participating in this experiment met the following criteria: (1) Voluntary principle: All the testers selected were required to sign the experiment in the resource, follow the specific table tennis exercise intervention plan, and must be able to join the experiment and control; (2) High blood sugar levels: Fasting blood glucose in all subjects must be stable at 7.0 mmol/L or higher, with a course of 1 to 15 years, and admission age is 55 years and older. Participants are required to be under 68 years of age and have not had major illnesses for a period of time, especially without long-term diabetes and hyperlipoidemia. Complications; (3) have certain athletic ability: all subjects are under study before A complete physical examination program, especially diabetes and hyperlipoidemia. complications, must be performed to ensure that the participants are able to achieve a certain amount of exercise intensity. (4) The tester must have certain cultural level requirements and be able to complete the corresponding physical activities according to specific requirements. (5) There is no major change

in the family, emotional stability, diet control (such as low salt, low fat, low sugar diet) Or oral hypoglycemic agents that do not take insulin, the tester will divide the subjects according to the age and sex of the tester into the same proportion, and can accurately divide into the experimental group that can participate in the exercise. = 30) and control group (n = 20). The age of the experimental group was 60.5±3.3 years, and the age of the control group was 61.2±4.6 years old.

3.2. Experimental Environment

All data was statistically processed using the SPSS 21.0 statistical package and Microsoft Excel 2013 software. The results were average ± standard deviation {(x(s)}, and the significance test was the Independent-Samplet test. The significant level was P <0.05, extremely significant level was P < 0.01.

3.3. Experimental Steps

Patient: A small amount of meals at night: bring enough water. Each exercise includes: a variety of preparations before exercise and a variety of contact and gymnastics warm-up exercises, as well as simple table tennis warm-up exercises. The total exercise time is ≥90min, in which the average exercise time takes 120 minutes, and the longest exercise time is 180 minutes (generally, 7:30~8:00, 10:30). Organizer preparation equipment: table tennis equipment + medical first aid kit.

The venue was selected as the fitness room of the community health service center, the table tennis club and the middle school table tennis teaching room under the jurisdiction of the three administrative villages. Sports Group: Drug use: Based on three observations and monitoring of actual indicators: gradually reduce the amount of drug used, and finally remove the drug until it is cured. Sports safety tips: pay attention to observation during exercise. Patient physique: changes in body temperature, pulse, heart rate and blood pressure, and adjustment of exercise intensity. (In the initial phase of the exercise group, observe the department's first aid kit).

Control group: The drug is used normally, and can be used according to the condition. (The control group did not object to other body movements). The exercise group: 50 patients (28 males and 22 females) with an average age of (56.6±3.6) years; control group: 50 patients (30 males and 20 females) with an average age of (55.8±3.1) years. There was no significant difference in the clinical manifestations and age of the patients in the two groups according to the age and physical health indicators of the patients in the same proportion (P>0.05).

The observational laboratory data and clinical data of exercise group and control group were calculated by SPSS21.0 statistical software. The difference was statistically significant at P<0.05.

4. Discussion

4.1. Intervention Process of Diabetes Patients with Hyperlipoidemia

The intervention lasted for 6 months, and the vast majority of patients finally achieved satisfactory results, and the intervention was satisfactory. Not only does the basic exercise requirement achieve the intended purpose, but the exercise effect also has a significant improvement. Patient compliance did not start well. Individual liberalism was rampant, and the condition was stable. Later, through gradual exercise, serious experience, self-discipline and bad behavior, individuals need to quit smoking, limit alcohol, check other bad hobbies, such as gambling, playing mahjong, Playing computer, mobile games and other bad habits. After this period of nephritis can basically establish a relatively reasonable and healthy living environment and lifestyle, the testers have good confidence, hobbies and pursuits for table tennis exercise. Ensuring

the quality of the intervention process is a key and prerequisite for completing the experiment. The patient's physical exercise from 1 to 6 months was gradually adjusted to a virtuous circle.

The changes of blood glucose, blood lipids, various clinical indexes and physiological indexes before and after exercise test were statistically significant (P<0.05). The effect of table tennis was satisfactory, and may eventually deviate from the dependence of various drugs. As show in table 1, figure 1, figure 2.

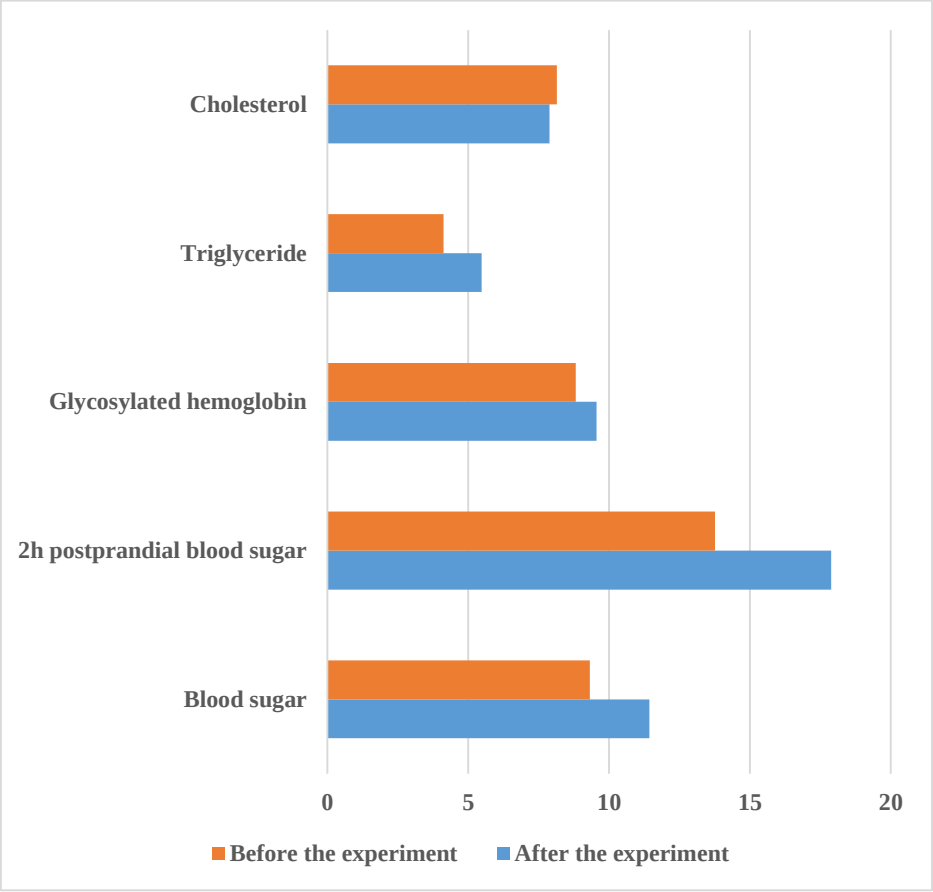

Figure 1. Comparison of the experimental group before and after the experiment

Table 1. Changes before and after the two groups of experiments

Test Indicators	Control group (n = 50)		Exercise group (n = 50)	
	Before the experiment	After the experiment	Before the experiment	After the experiment
Blood sugar	11.43±1.96	9.32±2.06	11.39±1.93	6.28±1.84
2h postprandial blood sugar	16.18±3.26	12.56±2.62	15.61±3.08	8.72±2.84
Glycosylated hemoglobin	8.13±2.26	7.82±2.42	8.24±1.96	6.18±2.04
Triglyceride	3.42±1.41	3.12±1.12	3.38±1.22	1.41±1.27
Cholesterol	6.47±1.18	6.15±1.21	6.31±1.26	1.41±1.27

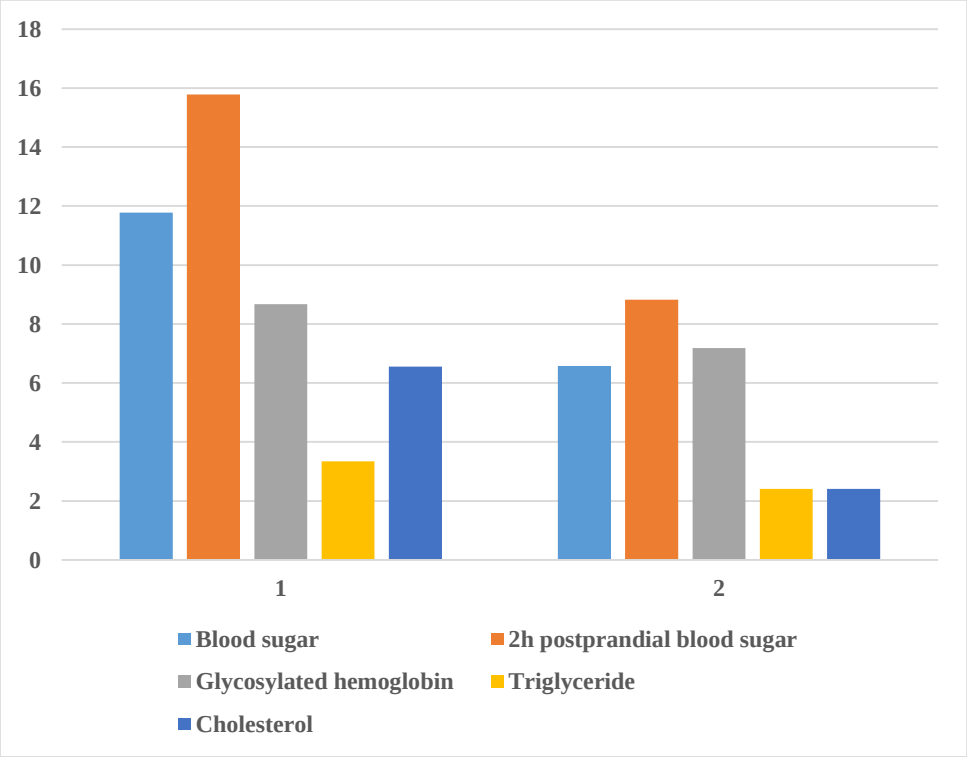

Figure 2. Comparison of the control group before and after the experiment

As shown in the statistical results in Figure 2, the microscopic index was significantly restored, and the difference was statistically significant (P\u003c0.05). Physiological and clinical indicators also showed significant changes, and the difference was statistically significant (P\u003c0.05). Table tennis has achieved its intended purpose, and mild diabetes is not really a terrible disease. What is really terrible is that there is no attitude and determination to exercise seriously. Attitude determines fate. The fasting blood glucose concentration of normal people is 3.9~6.0 mmol/L. The blood sugar of the human body is regulated by a pair of contradictory hormones: insulin and glucagon regulation. After the onset of diabetes, the body, especially the muscles, cannot use glucose effectively. Glucose uptake has been demonstrated to be achieved by two pathways, insulin, insulin receptor substrate activation pathway (IRS) and phosphatidylinositol 3-kinase (pi-3k). It is a channel activated by motion. AMP-activated protein kinase (AMPK), which achieves transmembrane transport of glucose by activating glucose carriers on the sarcolemma, shows that exercise plays an important role in affecting glucose metabolism. The increase in activity level will eventually enhance the expression of sarcolemmal GLUL-4 and promote translocation to increase the transmembrane transport of glucose, thereby increasing the body's utilization and consumption of glucose, reducing blood sugar levels, although exercise can improve the body's blood sugar levels. Utilization, the impact of exercise patterns on body glucose metabolism is an area of positive thinking in preventive medicine.

4.2. Table Tennis Exercise Process in Patients with Diabetes Mellitus Complicated with Hyperlipoidemia

Both groups of patients were treated with conventional hypoglycemic western medicine for daily exercise, low-fat, low-fat diet; the control group was given simvastatin dispersible tablets 20 mg once daily before bedtime, orally. Organized a two-day table tennis study, basic knowledge and

mastery of sports and technical skills, experiments. Each exercise lasts for 70 minutes and lasts for 4 months. Heart rate over 60 years old = 170-age; under 60 years old, heart rate is 180 years old. Keep a normal life. Observed fasting blood glucose FPG after 3 months, 2hPG after 2h, serum total cholesterol TC, triglyceride TG, high-density lipoprotein cholesterol, LDL-C level, evaluation criteria [8]: significant, TC decreased to normal or growth is greater than or equal to 20%, TG decreased to normal or decreased is greater than or equal to 40%, LDL-C decreased to normal or growth is greater than or equal to 20%, HDL-C rose to normal or is greater than or equal to 0.157mmolL-1; effective, TC decreased by 10%~20%, TG Decreased by 20%~40%, LDL-C decreased by 10%~20%, HDL-C increased by 0.130~0.157mmolL-1; invalid, did not reach effective standard; deterioration, TC increased ≥10%, TG growth is greater than or equal to 10%, HDL -C growth is greater than or equal to 0.130 mmol L-1, and LDL-C exceeded the normal limit.

After a long period of table tennis exercise, the experimental group showed that the main indicators of the disease, FPG, 2hPG, TC, TG, etc., had a good change after exercise. Compared with the control group, the changes were significant. P <0.05 and P<0.01. As show in Table 2, Figure 3 and Figure 4 for details.

Table 2. Test results of various indicators of experimental group and control group

Test Indicators	Control group (n = 30)		Exercise group (n = 30)	
	Before the experiment	After the experiment	Before the experiment	After the experiment
FPG	11.56±2.01	8.63±1.96	11.95±1.93	6.35±1.84
2hPG	17.63±3.50	11.56±2.64	16.61±3.08	8.52±2.84
TC	7.13±3.26	3.82±2.42	7.24±1.96	6.18±2.04
TG	4.42±1.41	2.12±1.12	3.38±1.22	1.41±1.27

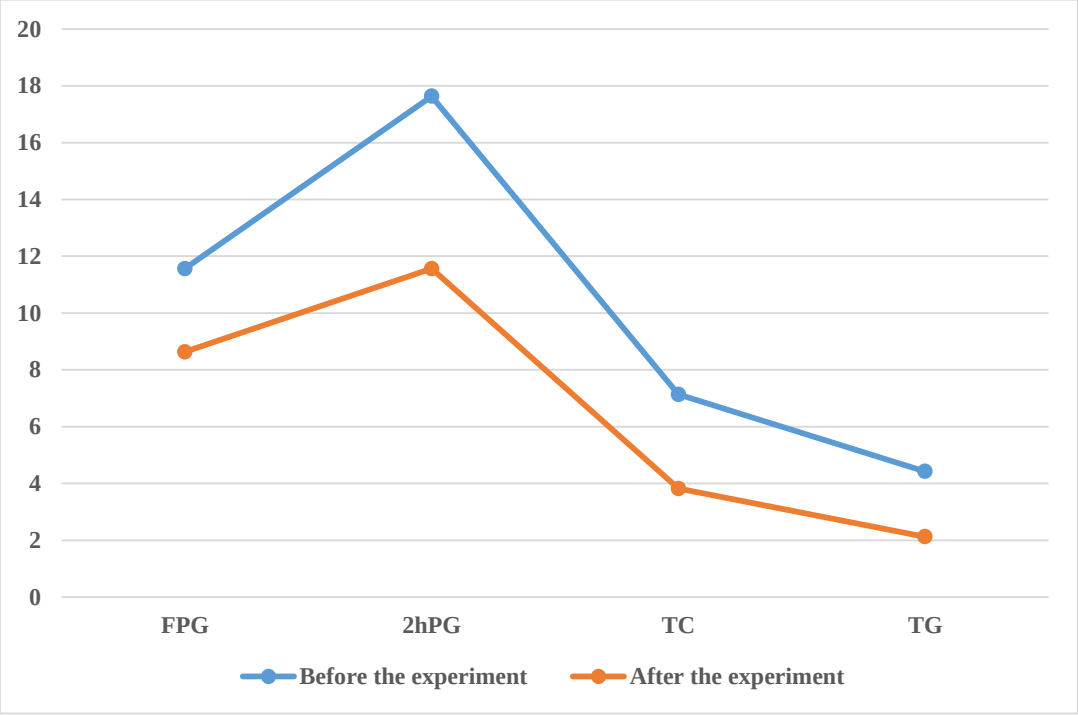

Figure 3. Results of the indicators in the control group

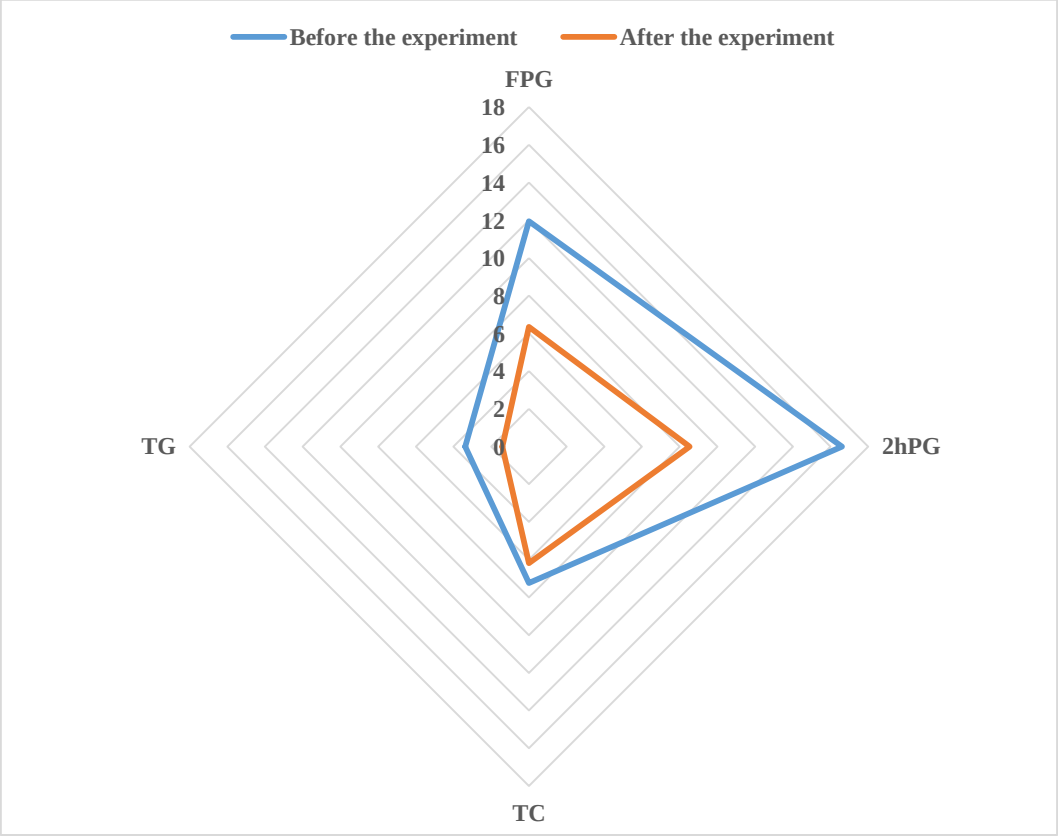

Figure 4. Results of the various indicators of the sports group

5. Conclusion

Regular table tennis can help treat patients with diabetes and hyperlipoidemia and effectively improve blood pressure and blood lipids. Hypertension and hyperlipoidemia should adhere to regular and effective swimming exercises and develop good exercise habits. Aerobic exercise can change blood pressure and blood lipid levels, and has a significant effect on lowering high blood pressure and high blood fat. Exercise intensity should be moderate, not too large or too small, too much to cause the subject to cause physical discomfort and fatigue. Xiaowen has no effect on blood pressure and lipid lowering, and must be adjusted according to the physical condition of each subject. Medium strength. The progressive and long-lasting table tennis in the global bio-psycho-social medicine model has become the best rehabilitation sports medicine prescription for the treatment of mild adult secondary diabetes. It is also one of the other methods of rehabilitation and anti-diabetes that other diabetic patients can learn and refer to. The fitness and psychological value of table tennis based on lifelong physical exercise can be seen in the prevention and treatment of various types of chronic diseases of diabetes. In the future, its stimulation and related effects on the endocrine system, cardiovascular microcirculatory system, respiratory system and nervous system are subject to further analysis and research by medical and health workers. This article throws bricks and jade, how to scientifically cooperate with the integration of Chinese and Western medicine, eliminate various sub-health states in the process of table tennis, and convey the positive energy to maintain good health. In order to create the beautiful dreams of human youth forever, we need the unremitting efforts of future medical workers. Strive to realize the eternal health and freedom of mankind and contribute their knowledge and strength.

This study confirms that table tennis and exercise are very good behavioral medicine

prescriptions for diabetic patients, with mild symptoms in both macro and micro aspects. After a period of time and a certain period of exercise, the glucose metabolism of diabetes can be significantly regulated, and the by-products of the exercise itself, the pleasure of body and mind, and mental health are also greatly satisfied. The positive energy of the body and the various hormones and hormones secreted by the pituitary gland play an important role. Its movement can cause excitatory inhibition and neurohumoral regulation of the central nervous system and the nervous system around the body and mind. Restore the body's clinical symptoms and test indicators are normal. The body mass index returned to normal. The body enters the orbit of a virtuous cycle. A truly lasting battle will eventually lead to the healing of patients and the elimination of hypoglycemic drugs.

This article is based on a special technical structure, flexible physical requirements and strong entertainment and competitiveness. It is of great significance to improve the quality of life of patients with diabetes mellitus complicated with hyperlipoidemia. And it is easy for athletes to quickly enter the sporting state (table tennis). On this basis, the study conducted a table tennis exercise intervention for patients with diabetes mellitus complicated with hyperlipoidemia, and the patients were followed up. Provides more effective, simple and easy-to-develop exercise habits for people with diabetes and hyperlipoidemia. Table tennis has a significant improvement in the initial intervention of patients with diabetes mellitus complicated with hyperlipoidemia. This method is feasible and reliable.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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