An Analysis of the Causes of Fatty Liver in College Students and Their Health Prescriptions

Sheng Mao, Dengfeng An[a,*]

Qujing Medical College, Qujing, Yunnan, 655000, China

[a] hhuo0010@163.com

*corresponding author

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Abstract: The purpose is to explore the factors that affect the degree of fatty liver disease in college students, and to provide scientific basis for the prevention and treatment of fatty liver. As a method, 271 students aged 45 years were analyzed by univariate and regression analysis. Results age, drinking, body mass index (BMI), blood glucose (FPG), blood lipid (TC, TG, HDL-C, LDL-C) showed significant influence on the degree of fatty liver ($P < 0.05$). The severity of fatty liver increased with age, but there was no significant difference between 30-40 years old and 40-45 years old ($P > 0.05$). Alcohol dependence can worsen fatty liver disease. The higher BMI, the more serious fatty liver. Conclusion four ages, drinking, BMI, glucose and lipid in blood have significant effects on the degree of fatty liver. Controlling the diet of obesity, low fat and low sugar and stopping drinking can reduce the severity of fatty liver.

1. Introduction

Fatty liver is caused by various reasons. Reversible common disease. Without early treatment, it can develop cirrhosis and liver cancer. Now it's getting attention[1]. In order to provide scientific basis for the prevention and treatment of fatty liver, we used sequential logistic regression model to analyze the possible factors that affect the degree of fatty liver disease.

1.1. Objects

271 45 year old college students who were hospitalized in our hospital from January 1 to December 31, 2015 were selected as the subjects[2]. The ultrasound was applied to the liver by Philips ultrasound system. It conforms to the ultrasonic diagnostic standard of fatty liver revised by the alcoholic liver disease group of liver branch of Chinese Medical Association in 2006.

1.2. Method

Investigation of medical history: a detailed investigation of the past medical history, current medical history, drug history and disposal history must be carried out, and a reexamination report must be made in combination with the medical records[3]. It is a smoking habit to ask whether smoking, drinking and smoking more than 20 cigarettes a day are smoking habits; alcohol excess standard: the high-risk standard value of alcoholic liver disease is 80g / D for more than 5 years. Hitachi eub-6500 color Doppler ultrasound diagnostic device is used to detect whether there is fatty liver in the liver, and the detection frequency is 3.5-5.0 MHz. Ultrasonic diagnosis criteria of fatty liver: slight or moderate enlargement, clear and smooth outline, sometimes blunt and round edge, increased echo in liver, high density in the first half (echo intensity of liver), echo in spleen and kidney)[4]. The change of cloud makes the echo change gradually, and the diagnosis of fatty liver by intrahepatic bile duct is not obvious. Height and weight are measured by the same person in the same clinic.

1.3. Statistical Methods

All the data were verified by Excel, and the database was established by SPSS 13.0. The

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measured data is expressed as X ± s[5]. The ratio was compared in χ 2 test. Using the sequential logistic regression model, analyze the fatty liver factors that affect the degree of change, and calculate the ratio (or). The inspection level is 0.05.

2. Results

563 summary of physical examination data. 413 cases were fatty liver, the overall incidence rate was 26.4%. Among them, there were 271 cases of fatty liver at 45 years old, the incidence rate was 17.3%. Among 271 college students with fatty liver, the average age was 33.6 years old, 33.1% were under 33 years old, 99 were 30-30 years old, 36.5% were 139. 183 (68.3%), 86 (38.3%) females, the ratio of male to female increased by BMI was normal, 1 / 3, obesity was 51 (36.1%) and 113 (18.4%)[7]. The living habits of smoking and drinking were 145 (52.3%), 165 (52.6%), 135 (49.9%) and 137 (50.6%). Among 271 college students with fatty liver, 49.8% (135), 33.9% (92) and 16.2% (44) were mild, moderate and severe fatty liver, respectively.

Table 1 Influence of blood biochemical indexes on fatty liver in young people

Fatty liver classification	FPG	FPG	FPG	FPG	FPG
light	6.01±1.71	6.23±1.42	1.84±0.67	1.10±0.26	3.40±0.59
moderate	7.36±1.47	6.71±1.23	1.86±0.45	0.94±0.22	3.67±0.58
heavy	9.61±2.53	7.62±1.51	2.80±0.93	0.89±0.23	3.92±0.68
F	65.952	10.333	41.198	20.156	13.412
P	0.000	0.000	0.000	0.000	0.000

2.1. Single Factor Analysis of Fatty Liver Disease Classification in College Students

General conditions will affect the fatty liver grade of college students. Age, gender, BMI, smoking, alcohol consumption and the history of diabetes have an important impact on the fatty liver level of college students[8]. The history of hypertension is a grade of fatty liver in college students. The effect was not statistically significant ($P > 0.05$).

2.2. Multivariate Sequential Logistic Regression Analysis of Fatty Liver Disease Grade in College Students

The classification of fatty liver disease (mild, moderate and severe) was regarded as dependent variable, and the important factors of univariate analysis were introduced into univariate logistic regression model. Results: the regression model has statistical appropriateness after fitness. Validity ($\chi 2 = 243.269$, $P < 0.05$); age, drinking, glucose in blood, and lipid in blood had significant effects on the classification of fatty liver ($P < 0.05$), gender, smoking, and diabetes experience. With regard to the influence of age on the classification of fatty liver diseases, compared with the population aged 40-45, the protective effect of fatty liver in the population aged 20-30 is 0.233[9]. It was 0.233 times in 40-45 year group. However, there was no significant difference between the 30-40-year-old group and the 40-45-year-old group ($P > 0.05$). The severity of fatty liver increased with drinking. With the increase of BM I, the severity of fatty liver disease increased, and BMI was normal. The classification of overweight fatty liver was 0.228 times and 0.312 times of BMI. In biochemical indexes, FPG, TC, TG and LDL-C are the risk factors of fatty liver, FPG, TC, TG and LDL-C are more dangerous than fatty liver. Or 2.529, 1.398, 3.290, 2.092, H - D - C is its protection factor.

3. Discussion

At present, fatty liver is one of the most important public health problems in the world and one of the main chronic liver diseases in China. The incidence is increasing. Please increase your attention. Fatty liver is not a special disease clinically, its pathological changes can be recovered[10]. It is usually divided into light, moderate and severe fatty liver according to fat and content. According to the literature, moderate fatty liver has obvious inflammation and necrosis of

hepatocytes. In the case of severe fatty liver, liver fibrosis is associated with the change of liver cirrhosis. Therefore, it is very important for the prevention and treatment of fatty liver to find out the important factors that affect the classification of fatty liver.

In this study, multivariate logistic regression analysis showed that age in blood, drinking alcohol, blood glucose and lipid had significant influence on the degree of fatty liver disease ($P < 0.05$). Among 271 college students with fatty liver, the proportion between 20-30-40 and 40-45 was 12.2%, 36.5% and 51.3% respectively. The incidence of fatty liver increased with the increase of age, and there was no significant difference between 30 and 30 years old. In 30 years, my body will be very heavy. BM often drinks alcohol and other bad habits. Moreover, drinking is for college students and fat. The main reason of high incidence of liver is that frequent drinking may cause fat deposition in liver. 80.8% of college students are fatty liver. High level fatty liver patients often eat high fat and high sugar food. A large amount of sugar will produce endogenous TG, TG increase and glucose metabolism abnormality. TG based neutral fat interacts through the liver. Diabetes mellitus and hypertension are important factors in the severity of fatty liver in college students, but these literatures are still worthy of vigilance. Fatty liver is a reversible disease that can be prevented and treated, especially for students. At the same time, fatty liver is the result of the accumulation of triglycerides in liver cells. Fatty liver is caused by a large number of free fatty acids entering the liver, which are oxidized, increase triglycerides, and reduce the synthesis of lipoproteins involved in the excretion of lipoproteins. Fatty liver is an independent primary disease and reflex of liver systemic diseases. In 271 cases, the detection rate was 84.31% in males and 15.69% in females. There are big differences between men and women. At all ages, men change their peak from the age of 36. The incidence was stable in all groups, lower than before 36 years old. After the age of 36, with the increase of age. Attention should be paid. The results show that people who are related to their living habits are related to smoking habits, excessive drinking, physical strength and diseases. From high to low, they show hepatitis B > fat > obesity > hyperglycemia. The statistical results show that hepatitis B is one of the most important factors of fatty liver in college students. There was significant difference between the two groups ($P < 0.01$). Compared with the control group, $P < 0.05$, the history of drinking too much and increasing blood lipid was also different. Compared with the control group, there was no significant difference in smoking, obesity and blood glucose ($P > 0.05$). Therefore, chronic hepatitis B, excessive drinking and hyperlipidemia are the important causes of fatty liver in college students. The infection rate of hepatitis B is relatively high, and chronic hepatitis B is not uncommon. Chronic hepatitis is secondary fatty liver, and its mechanism is unknown. Therefore, the inhibition of hepatitis B in college students is one of the important factors to reduce fatty liver. At the same time, hepatitis B patients should especially prevent excessive drinking due to the rise of blood lipids.

Finally, the correlation between fatty liver and body mass index, blood lipid and liver function was analyzed. As a result, obesity is closely related to the occurrence of fatty liver, which may cause abnormal blood lipid and liver function. The obese group is different from the non obese group. Fatty liver increases with the increase of obesity, and obese people are susceptible to fatty liver. Abdominal fat cells are very sensitive to stimulation, and a lot of fatty acids will be transferred to the liver, which may have. In addition, obesity is easy to cause the insensitivity of insulin receptor in vivo, and insulin resistance is the main reason of liver lipid over deposition. Therefore, fatty liver can easily cause serum cholesterol, triglyceride and normal range of liver function. The cholesterol, triglyceride and liver function of fatty liver group were higher than those of the control group.

4. Conclusion

Many literatures show that long-term fatty liver may develop into steatohepatitis, cirrhosis and even liver failure. If it can be detected early and processed quickly, it will not stop its further development, but may be hardened. Ultrasonic technology has the characteristics of high speed, economy, reliability, easy operation, damage resistance and strong repeatability. Therefore, the best method of condition monitoring should be popularized and used as routine examination of medical

test.

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