Balneotherapy and fatty liver disease

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ABSTRACT

Alcoholic and non-alcoholic fatty liver disease has been a common phenomenon in humans and animals, especially due to factors such as sedentary life, malnutrition and stress. As a matter of fact, the problem of fatty liver has turned into a global threat. Alcoholic liver fat is not seen in animals, but non-alcoholic fat is a common occurrence. Although the drugs developed for liver oil have been widely used, the side effects of these drugs are excessive and the failure to provide a permanent treatment has led to the search for alternative treatments. Drinking hot springs is a natural way to accelerate metabolism and burn fat. The sulfur, bicarbonate and other compounds it contains allow for the acceleration of metabolic activity and the increased capacity to reduce total body fat. However, this is a new subject, a field that is in vogue for scientific research. Scientific presentation of the positive effects of thermal springs on liver oiling will enable this problem, which is common in both animals and humans, to be eliminated by natural and domestic resources.

Key words: Balneotherapy, fatty liver disease, animals, humans.

INTRODUCTION

The term fatty liver, fatty liver syndrome or hepatic steatosis is a term that refers to fat accumulation in excess of liver capacity. Taking into account the constructive factors and occurrences, alcohol-free fatty liver disease and alcoholic fatty liver disease is also called alcoholic steatohepatitis. Alcoholic fatty liver disease is caused by heavy alcohol consumption, while non-alcoholic fatty liver is a common condition in humans and animals and usually has a multifactorial etiology. The most common etiologic factors are:

1) Type 2 diabetes and prediabetes;
2) Obesity;
3) Race predisposition;
4) Elevated cholesterol and triglycerides;
5) Hypertension;
6) Corticosteroids and some cancer drugs;
7) Certain metabolic disorders, including the metabolic syndrome leading to negative energy balance;
8) Fast weight loss;
9) Certain infections such as hepatitis C;
10) Exposure to certain toxins (especially in the poultry sector) (Vernon et al., 2011; Brunt and Tinakos, 2010; Bobe et al., 2004; Gaal et al., 1983).

Non-alcoholic fatty liver disease is considered to be a component of the metabolic syndrome associated with stress, unbalanced diet and obesity, which is the case of periodic metabolic fat mobilization in animals and humans (Federico et al., 2006; Efimenko et al., 2015).

While many drugs are being used in the treatment of the disease and others are being investigated, the side effects of these drugs and the necessity of additional treatment have resulted in the development of new alternative treatments (Brunt and Tinakos, 2010; Bobe et al., 2004; Federico et al., 2006). For example, in a study, 40 patients with diabetes who developed fatty liver syndrome were given a drink-style balneotherapy. As a result of this study, positive results were obtained regarding liver enzymes, intrahepatic hemodynamic parameters, lipid peroxidation homeostasis and hormonal balance status. It has been determined that the drinking of hot springs in these patients can not only...
compensate lipid levels, but also have important healing effects on diabetes. As a matter of fact, it has been determined that drinking with these waters cause a significant decrease in the level of insulin resistance as well as, regulation of leptin and adiponectin levels. At the end of the study, it was concluded that thermal waters stabilize liver, carbohydrate and lipid metabolism and prevent progression of pathological process and should be part of combined therapies (Fedorova et al., 2012).

In another study with SPA waters, Eberhardt (1977) noted that patients with liver disease may benefit from balneotherapy cures, but that patients should be admitted to the hospital for these courses so that their indications can be metered by measurement, and that they should be kept under observation during recovery.

In the diagnosis of the disease, measurement is still the most effective method for differential diagnosis of fatty liver disease, besides having many useful parameters that give important clues on liver biopsy and histopathological examination of the obtained material (Hoff and Cote, 1996; Gaal et al., 1983; Haudum et al., 2011). For this reason, our current work will also benefit from this method in order to determine the effects of unspecified hot spring waters on liver oiling.

As noted in the relevant chapters, fatty liver syndrome is an important metabolic problem in animals as well as, in humans. Although many drugs are tried and tested in human and veterinary medicine, it is difficult to discuss about complete success in treatment. In humans, despite the use of invasive methods, this metabolic syndrome is still widespread and continues to progress to the point where it threatens humanity. Scientific presentation of the effects of thermal waters as a non-invasive method, either as a complementary treatment with or without conventional treatments, will provide benefits that will lead to extremely important developments in terms of human and animal health as well as, the region and country (Elıtok, 2011). As a matter of fact, there is no scientific work on this issue in our region or our country. It is clear that this work is very important in this respect and that it will help in the elimination of the literature deficiency which will be a reference in this area.

REFERENCES


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