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Role of coconut oil in regulating autoimmune disorders

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Abstract

A disorder due to the improper functioning of the immune system where the immune system attacks the body's own cells is known as an autoimmune disorder. The symptoms vary from time to time and changes according to the overall conditions of the body. Fatty oils from coconut oil, specifically lauric acid is considered to be involved in various metabolic and regulatory functions of various autoimmune disorders. In this article, we have focused on the basic fundamentals of using coconut oil in preventing the symptoms of autoimmune diseases.

Keywords: Lauric Acid, Autoimmune Disorder

1. Introduction

Coconut oil has been the most favoured oil for cooking all around the world, specifically in Asian and Polynesian societies from a very long time for its valuable medicinal properties. In one of the articles published on coconut research centre website, says that coconut oil is rich in necessary vitamins, amino acids, and medium chain fatty acids which are needed by the human body at regular intervals ^[1]. Even though coconut oil is rich in saturated fatty acids, but these saturated fats once ingested are converted into useful form which is rich in antiviral, antimicrobial and antifungal properties. Medium chain fatty acid, like lauric acid is the main active ingredient available in large amounts in coconut oil. Their metabolism is quite different from long chain fatty acids as they are directly transported into the liver instead of the stomach hence considered an instant energy source. Apart from that it helps in improving the sugar level, digestion and most importantly in regulating autoimmune disorders.

When the human immune system tends to attack the body's own cells due to malfunctioning it is known as an autoimmune disorder. During this disorder our own immune system is not able to figure out the difference between good tissue and bad tissue and in this confusion it also attacks and destroys the healthy body tissues. There are 80+ autoimmune disorders ^[2]. Autoimmune problems leads to a complex set of symptoms like unhealthy body tissues, abnormal body growth, and improper metabolic functions etc. There is a possibility that it can affect more than one organ. Some common disorders include Addison's Disease, Celiac Disease, Graves' Disease, Hashimoto's, and Type 1 Diabetes etc.

There are so many autoimmune diseases which need urgent action in the field of research. Celiac disease, one of the autoimmune disorders in which the person becomes sensitive to gluten and is advised not to consume wheat (major source of gluten). Coconut oil extracted from the white fleshy part of the coconut provides a good 117 calories in one tablespoon of oil and is generally used by celiac patients for the preparation of all meals. Inflammation is one of the symptoms generally faced by celiac patients. Coconut oil is considered the best natural healing therapy used to inhibit inflammation and also provides energy to the body ^[3]. Antibodies that attack the thyroid gland increasing the hormone production lead to the autoimmune disorder known as Graves' disease. The Thyroid hormone is responsible for the regulation of mood, weight and other physiochemical activities responsible for maintaining energy levels. Dysfunctioning of the thyroid gland will lead to various complications in the human body ^[4]. Most important fatty acid i.e., lauric acid which is an essential component of human diet is mostly found in coconut oil. It has strong anti-bacterial and anti-viral properties. According to a study conducted by researchers at McGill University, coconut oil is considered to be a natural energy booster. And moreover with balanced diet and regular exercise one can control Graves's disorder symptoms and help in regulating the human metabolism positively. Manuel A De Pablo, a researcher was working on dietary lipid and its role in manipulating the immune system. He published an article in 2000 in *Immunology and Cell Biology* which claims that fatty acid metabolism plays a very important role and requires more intense research for better understanding of autoimmune disorders. Literature study concludes that there is a strong

correlation between the type of lipid consumed and several immune responses such as lymphocyte distribution, cytokine regulation, phagocytosis and many others. It is being considered that regulation of the immune system with respect to lipid metabolism of the diet should be studied in relation to membrane functions, gene expressions and other metabolic processes etc ^[5].

Crohn's disorder is related to the digestive system and also comes under the list of, one of the many autoimmune diseases. It results in inflammation and can spread from the mouth to the anus, but it is usually associated with part of small intestine i.e. ileum. In severe cases it can lead to diarrhoea. In 2009 an article was published regarding the use of coconut oil in treating Crohn's disease. They fed a group of mice with sunflower oil, whereas another set of mice was fed with a coconut oil diet. The study showed that the mice consuming coconut oil had less digestive problems and inflammation issues. The major principle behind this is that coconut oil is rich in lauric acid, which has rich antimicrobial properties ^[6].

Traditional Method of using coconut oil

Sometimes factors like stress, reaction with other drugs, alcohol addiction etc., leads to most contagious skin disease known as Psoriasis. There are many natural remedies for psoriasis like sunlight, baking soda, petroleum jelly and coconut oil. Coconut oil treatment is considered as the best option and can be used in many ways. For example, regular users and physicians advised to consume two tablespoons of coconut oil every day and can also be consumed by mixing in smoothies or coffee. Another simple way is to apply coconut oil directly to the affected area ^[7]. Another disorder having similar symptoms as psoriasis is Eczema. Sometimes it is very difficult to differentiate between eczema and psoriasis. The rashes and symptoms appearing in elbow and knees signify psoriasis whereas symptoms occurring in the inside of the arms and back of the knees are Eczema. Coconut oil has been proved beneficial for eczema also. Use of natural moisturizer such as organic coconut oil is found to be really good for this disorder. If used along with a balanced diet and regular exercise. It also helps keep you stress free.

Conclusion

Coconut oil is rich in saturated fats, which on cooking does not release free radicals like unsaturated fats. Therefore, it has been proved to contain the best composition of fats as required by the human body. The sticky nature of oil makes the virus suffocated leading to ultimate death. Autoimmune diseases are so complex and progressive. And it requires more intensive research at a fundamental level like daily diet and lifestyle. Some researchers are taking a step ahead by working on coconut oil and its role in various autoimmune diseases. Coconut oil has been used from decades for cooking and other daily activities. Research conducted in many institutes have shown promising results and promotes the use of coconut oil.

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