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AROMATHERAPY WITH ESSENTIAL OILS TREATING CHRONIC FATIGUE SYNDROME

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The article analyzes possibility of aromatherapy methods used for treatment of chronic fatigue syndrome. It was found out the best mode is to use essential oils of Rosemary, Lavender, Geranium, Sandalwood and Bitter orange and their combinations. Methods of aromatherapy is safe and effective for treating of chronic fatigue syndrome and can be recommended for a wide range of patients.

Key words: *aromatherapy; chronic fatigue syndrome*

Introduction

Today chronic fatigue syndrome is a pathology that has become increasingly common. Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) is a complex, multifaceted disorder characterized by extreme fatigue and a host of other symptoms that can be worsen after physical or mental activity, but do not improve after rest. According to medical statistics Estimates of the number of people with the condition vary from 7 to 3,000 per 100,000 adults [1, 4]. About one million Americans and a quarter of a million people in the UK have CFS [6, 7].

Determined that many people – particularly children and young people – improve over time. This fatigue is not the kind of tired feeling that goes away after rest. Instead, it lasts for a long time and limits your ability to do ordinary daily activities. The main symptom of CFS is severe fatigue that lasts for 6 months or more.

In addition to extreme fatigue, people with ME/CFS may also experience: Widespread muscle and joint pain; Sore throat; Tender lymph nodes in the neck or armpit; Headaches; Sleep problems; Difficulty with short-term memory or concentration [5].

CFS attacks often occur after undergoing viral diseases, but the causes of CFS had still not clear. Treatment of CFS requires a comprehensive approach, including socio-hygienic, psychological, clinical, diagnostic and therapeutic approaches. The pathogenesis of CFS is unknown.

Some authors attach importance to various viruses, the non-specific activation of immune reactions and mental factors. The majority of the disease indicates a connection with environmentally adverse conditions, and the fact that it is a "disease of the middle class", giving thus an important role social factors. The problem is the treatment of CFS. The only proposed pathogenetic treatment - intravenous administration of drugs IgG, is now abandoned, since a large number of complications (phlebitis in 55% of cases).

One of options that promises more effective treatment of CFS can be application of aromatherapy.

The objective was to study the effect of essential oils on patients diagnosed with chronic fatigue syndrome.

Materials and methods

Study of the essential oils effect involved 17 patients with a diagnosis of chronic fatigue syndrome.

We used aromatherapy with such essential oils as rosemary, geranium, lavender, sandalwood and bitter orange.

Rosemary (*Rosmarinus officinalis*) has been used medicinally to improve memory, relieve muscle pain and spasm, stimulate hair growth, support the circulatory and nervous systems [9].

Geranium macrorrhizum is a species of hardy flowering herbaceous perennial plant belonging to Geranium genus, Geraniaceae family. The plant is used for medical purposes in the traditional herbal medicine since it possesses high antimicrobial properties. A major component of essential oil is the sesquiterpene ketone germacrone. The essential oil of Geranium (*Pelargonium*) has a good effect on cardiovascular system, reduces blood sugar and regulates blood clotting. After prolonged use it eliminates the vascular spasms, headache, migraine, normalizes blood pressure [3].

Lavender (*Lavandula officinalis*) plant is grown mainly for the production of essential oil of lavender. This has antiseptic and anti-inflammatory properties. These extracts are also used as fragrances for bath products. Lavender oil with a high percentage of linalool and linalyl acetate, in the form of capsules, was generally well tolerated. It showed meaningful efficacy in alleviating anxiety and related sleep disturbances [8].

Sandalwood is the name of a class of woods from trees in the *Santalum* genus. Up to 90% of sandalwood oil is a component santalol, besides him there are: teresantalol santal, santalon and santenon. Sandalwood oil has clearly expressed antiseptic, antibacterial and anti-inflammatory properties. It is an equally help with the outer skin infections and diseases of the respiratory and digestive systems. Sandalwood oil relaxes and soothes, brings man calm in stressful situations, eliminates the whining, while giving strength and toning the body, helping to cure headaches and to cope with insomnia [2].

A few drops of rosemary oil or lavender oil applied to the handkerchief, with the feeling of mental and / or physical fatigue. To lighten the mood, depression, it is recommended to inhale the smell of a mixture of oil deposited on the handkerchief. Flower essences are intended to facilitate mental disorders and stress relief to the emotional sphere. Keep in mind that aromatherapy during pregnancy can be carried out only under the strict supervision of the attending physician.

Bitter orange essential oil is obtained out of fruits citrus (*Citrus aurantium*). Major Constituents of Bitter orange essential oil are Limonene, B-Myrcene, Linalool, Bergapten [10].

The average age of the patients was $42 \pm 3,8$ year. There were 13 women and 4 men.

Essential oils used both in monotherapy or in combination. Using combinations without base oil mixture was prepared in a clean container made of dark glass. The resulting mixture of essential oils was used by applying a few drops on the medium (paper napkin, a cotton pad). Mono aromatherapy with essential oil is used by applying a few drops on the media (paper napkin, a cotton pad).

Recipe aromatherapy compositions.

Composition № 1.

Lavender essential oil – 20 drops

Geranium essential oil – 20 drops

Sandalwood essential oil – 20 drops
Apply 6 drops of the exposure.

Composition № 2.
Lavender essential oil – 20 drops
Geranium essential oil – 20 drops
Apply 4 drops of the exposure.

Composition № 3.
Lavender essential oil – 20 drops
Rosemary essential oil – 40 drops
Apply 6 drops of the exposure.

Each of the participants in the experiment chose the essential oil with the most pleasant smell to it.

Exposure inhalation of the essential oil was 20 minutes for 14 days.

Distribution of patients by preference are shown in Table 1.

Table 1

Distribution of patients by preference

№	Essential oil or combination of essential oils	The number of people in the group
1	Lavender essential oil	4
2	Rosemary essential oil	1
3	Bitter orange essential oil	4
4	Composition № 1	2
5	Composition № 2	2
6	Composition № 3	3

It should be noted that independent choice of flavor in patient largest groups were those who preferred lavender essential oil (23,5%) or bitter orange (23,5%). Rosemary essential oil was chosen by one subject.

At the end of 14-days course the severity of major symptoms of chronic fatigue syndrome was rated once again

It found that the maximum effectiveness was demonstrated in case of composition № 3 (*Lavender essential oil, Rosemary essential oil* in relation to 1:2). In addition, patients reported an improvement of the reaction and increased efficiency.

Also, it should be noted that the application of aromatherapy compositions lasting positive effect was faster, patients reported high positive dynamics 3-5 day later. While, provided a positive impact mono aromatherapy essential oils recorded a 7-9 day.

Thus, we are analyzing the results of the study it can be concluded that aromatherapy of use is an effective and safe method for the treatment of chronic fatigue syndrome.

Conclusions

The use of essential oils can be very effective and safe treatment for chronic fatigue syndrome. It was found that the best can be the use of essential oils of rosemary, lavender, geranium, sandalwood and bitter orange essential oil.

Particularly effective method would be to use aromatherapy with essential oils compositions, such as: Lavender – Geranium – Sandalwood; Lavender – Geranium; Lavender –Rosemary.

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Цубанова Н., Севастьянова Т., Цубанова Э., Лукиенко О. Ароматерапия с использованием эфирных масел при лечении синдрома хронической усталости // Труды Гос. Никит. ботан. сада. – 2015. – Т. 141. – С. 127-130.

В статье проанализированы возможности применения методов ароматерапии при лечении синдрома хронической усталости. Установлено, что оптимальным может быть применение эфирных масел розмарина, лаванды, герани, сандала апельсина горького а также их комбинаций. Применение методов ароматерапии при синдроме хронической усталости является безопасным, эффективным и может быть рекомендовано для широкого круга пациентов.

Ключевые слова: ароматерапия; синдром хронической усталости