

RESEARCH REGARDING THE USAGE OF THE CAPSAICIN-CORN FLOUR-ETHYLIC ALCOHOL IN THE NATURIST TREATMENTS

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Abstract

This paper presents a modality of usage of pepper as aliment, but also as ingredient for the obtaining of preparations successfully used in the naturist medicine, for the control or improvement of certain diseases. We took into study a preparation obtained from pepper tincture mixed with a base represented by a natural cream and corn flour. This product was experimented on four persons of different ages which had chronic cold. The obtained results were satisfying and, after these applications were made, an improvement in the health status was noticed (the cold was curing), followed by complete cure, without the usage of the chemical-based medicine. The preparation of this cream is easy to be made, without the requirement of high costs and immediate results, this cream being an ecological plant-based product obtained in the laboratory.

Key words: capsaicin, cream base, naturist medicine, tincture, vitamins

INTRODUCTION

Pepper takes part of the family *Capsicum* and is known as *Capsicum annum*. The pepper is known for its chemical composition of pepper fruits which reached the physiological maturity [4,6]. As known from the literature, the pepper has a high content of vitamin C (higher than the citrus fruits), but also of other vitamins: B1, B2, E1 and is rich in water, sugars, cellulose fibers, proteins, lipids, beta-carotene, oxalic acid [1,3]. The capsaicin is found in a percent of 90% in the pepper seeds and just 10% in the pepper pulp.

It helps to the stimulation of our metabolism, through the action on vein structure. Pepper is one of the most adequate remedies for high blood pressure, cleans arteries and has contribution in decrease of bad cholesterol or triglycerides [5,6].

Given that the cardiovascular diseases are the first cause of death on globe, the proprieties of pepper are particularly important. Pepper is beneficial both for stomach and gastrointestinal tract, because stimulates the

peristaltic movement, helps to eliminate feces and contributes at the reconstruction of stomach tissue, easing the heal of stomach injuries and intestinal ulcers.

When pepper is consumed, it triggers a heat sensation in the whole body and for this reason it was recommended in case of frostbites. Sharply and spicy, pepper is added in different type of tasty food from all over the world [2, 7].

Because of the high content in capsaicin, which is found in various forms or preparations, especially in the naturist medicine, it has the properties of stopping the vomiting, fighting the fever and dysentery, but the most important role is had by the creams and ointments used in the improvement and combat of rheumatic diseases and colds. Nowadays, capsaicin is found in many pharmaceutical products in various concentrations, from 0.025% to 8% in creams and patches [7].

As established in various studies, the alcohol used as remedy in some naturist treatments is indicated and even benefice in fighting colds,

applied in various compresses, because of the high content in ethanol, and, due to this fact, it stimulates the blood circulation and causes sweating, the organism getting rid of the toxins and viruses which attack it.

An important role in the cure of rheumatic diseases is detained by corn flour. It is known that corn beans are rich in vitamins A, B, C and E, but also many minerals. This is the reason for which the corn flour is used as medicine, in the form of polenta, or grinded, administered internally or externally. It has detoxifying, anti-inflammatory, hepatic, calming and digestive effects and it helps to the improvement of rheumatic pains, keeping the therapeutic qualities of corn beans.

MATERIALS AND METHODS

Studies and research were made by the authors in 2014, on four persons of different ages, whose were applied the preparation on different places affected by cold. Also, numerous local populations of pepper were harvested from a private household, from village of Dobrotești, Dolj County, and the bird fat was taken from the same owner, with the exception of the ethylic alcohol, which was bought from the drug store.

Different determinations were made with the purpose of the establishment of pepper composition: the content of vitamin C, carotene, acidity and protein.

Determination of vitamin C and acidity in the laboratory

The vitamin C from the pepper is destroyed fast by boiling. In 100 g of pepper are found 80-300 mg of vitamin C on the average, the necessary daily dose of vitamin C being 100 mg.

The method for vitamin C

5 g of fresh substance from the sample plant are powdered and washed with 50 ml of hydrochloric acid 2%, in large glasses of 250ml by filtration. 10 ml of extract are taken 5 ml IK 1%; 5 ml HCl 2%; 30 ml of distilled water; 2-3 drops of starch. It is titrated with potassium iodide 0.001 n and a slightly blue color results. The results of titration are multiplied by a coefficient of 8.8. The result is expressed in mg of ascorbic acid/100g of

fresh substance (mg %).

The method for acidity

5 g of fresh substance of sample plant are powdered and washed with 25-25 ml distilled water and then the composition (solution) is moved in 50 ml balloons.

This solution is boiled for 30 minutes at 80°C and brought to mark (50 ml). It is filtered. Other balloons or glasses are prepared, 10 ml of extract and 2-3 drops of phenolphthalein are poured and this solution is titrated with NaOH 0.1 n, resulting an accentuated pink color.

The coefficient of malic acid is 0.0067 and the titration result is multiplied by 0.67=% malic acid.

The determination of carotene and protein

To determine the carotene content from the pepper the chlorophyllian pigments method was used. 5g from the fresh substance from the sample plant to be analyzed are weighed and powdered very well and 25-30 ml of ethylic alcohol are poured over the powder in small glasses of 50 ml. In the next day the solution is brought at mark (50 ml) also using alcohol.

The readings are made at the photometer and the results are introduced in the formula. The protein content is obtained after the nitrogen from the plant is determined.

RESULTS AND DISCUSSIONS

These results obtained by biochemical determinations are necessary materials which will represent the study object for obtaining pharmaceutical products which have components obtained from pepper as active substance, knowing that the replacement of chemical-obtained products with naturist products is tried with success.

The preparation of the material for the cream preparation and the natural drying of peppers Before the establishment of the experimental program which will be made, pepper fruits originated from various local populations and reached to the full ripening are examined if they are healthy, if they have impurities (leaves, soil particles), certain anatomical parts and colour, taste and smell are compared with those which correspond with the pure

plant product.

Table 1. The determination of vitamin C and acidity at the 10 local pepper populations

| No. | Local populations | Vitamin C | Acidity |
|-----|-------------------|-----------|---------|
| 1 | | 270.30 | 0.37 |
| 2 | Local | 216.69 | 0.28 |
| 3 | populations | 218.41 | 0.39 |
| 4 | from Dobrotesti | 269.52 | 0.35 |
| 5 | Village, Dolj | 262.79 | 0.42 |
| 6 | County | 293.43 | 0.30 |

Source: Own calculation.

Table 2. The determination of carotene and protein at the 10 local pepper populations

| No. | Local populations | Carotene | Protein |
|-----|-------------------|----------|---------|
| 1 | Local | 5.723 | 15.24 |
| 2 | populations | 4.257 | 15.07 |
| 3 | from | 4.948 | 14.68 |
| 4 | Dobrotesti | 4.591 | 15.43 |
| 5 | Village, Dolj | 5.642 | 14.35 |
| 6 | County | 5.650 | 12.79 |

Source: Own calculation.

Then, the fruits are grinded in order to be dried. The fruits are then deposited in clean trays in thin layers for 14 days for a uniform dry.

The preparation of capsaicin tincture

After dry, the obtained material is transferred in a glass recipient. Over this, we poured ethylic alcohol of 96°C until the preparation is covered, followed by recipient closing with a run stopper for 14 days.

During this period, the recipient is stirred every day, being deposited in a place protected from light and heat. After maceration, the resulted liquid is filtered using filtering paper, resulting a reddish brown liquid.

The ethylic alcohol, taken into combination with the pepper, especially with the capsaicin from the composition of the pepper, accelerates the effects on the human organism which is affected by cold.

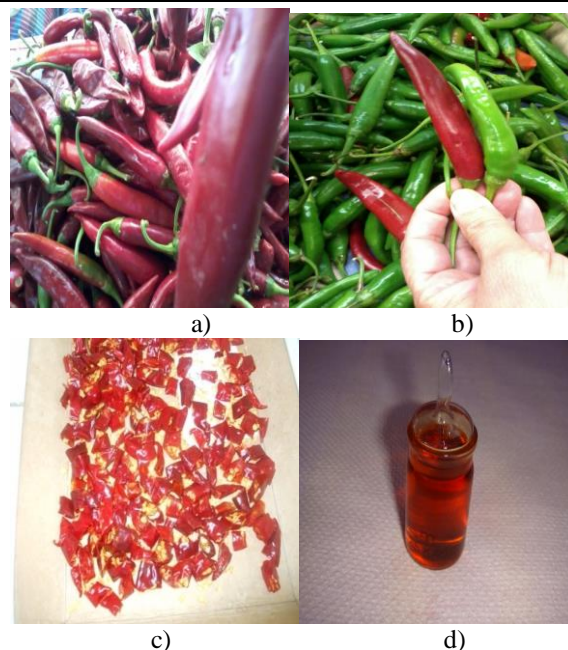


Fig. 1. The preparation of pepper tincture: a) pepper harvest; b) the choice of the peppers reached at the physiological maturity; c) pepper grind and dry; d) the obtained pepper tincture

Source: Own determination.

The quantities of material necessary for obtaining 300 g of rheumatic cream 250 g of this paste are taken. We pour 25 ml of tincture on it and 50 g of a cream base obtained from bird fat, made by melting until a soft paste is obtained.

The obtained composition is mixed well and it is spread on the painful or cold surface using a spatula. A thin and uniform layer of composition is applied on the skin and the next step is the packing in thermos-insulating foil for 30 minutes.

Then, the foil is removed, followed by the rests from the composition, and the treated skin is gently cleaned, followed by the appliance of a calming cream, if there is necessary.

After the presented steps are followed, in all cases it was observed that this cream successfully manages to neutralize the cold, by slight or strong skin reddening in the affected place.

If it is necessary, this naturist remedy is repeated, but only for maximum two days, in order to avoid sensible skin injuries.



Fig. 2. Results obtained after the appliance of the natural cream against the cold
Source: Own determination.

CONCLUSIONS

The elaboration of conclusions was the base of the research made by the authors starting from 2010 by the publication of several papers in this domain, by the publication of a book that was the base of a research contract, regarding the importance of the pepper consumption for the human organism because of their composition, but also for its promotion on the naturist medicine.

Treatment with capsaicin first time must be applied with caution, because each individual has a different reaction at a new therapeutic product, or may be allergic given the allergenic potential of capsaicin.

To obtain rapid effects for rheumatic pains, after applying the cream on the affected place applying a thermal insulator, and after a short time the place is heated and pains disappear.

Treatments with obtained cream is shown to be made of 1 times per day for 4 weeks

After using the cream, hands should be washed with soap and water, because as contact with eyes and lips are affected by burning (hot).

Use protective gloves for cream application for people with high sensitivity, with injuries, cuts and recent manicure done, or those that suffer from diabetes.

This capsaicin-based cream is forbidden to be applied on open wounds, eczema, high skin sensitivity.

The establishment of the capsaicin quantity existent in this product is important to be established, because it has a negative effect in case of certain skin diseases, certain degrees of sensibility of the human organism and especially age.

These creams made in house are cheap, can be prepared easily and quickly, have a period of six months use if they are kept properly and they are 100% natural, and the results obtained in the treatment of rheumatic diseases is high.

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