

Microscopic Analyzing of the Herbal Teas Sold In Pharmacy for Losing Weight

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Abstract

Objective: To find out the Microscopic analyzing of the herbal teas sold in pharmacy for losing weight. Eastern Mediterranean University. **Methodology:** Herbs and related products are commonly used by people who also seek conventional health care. Herbal tea is considered as having a share of the global beverage market, a highly competitive field. In this study, the aim was microscopically analyzing of herbal teas sold in pharmacy for losing weight to identify the labeled ingredients present in teas. In this project two different herbal slimming tea one from Cyprus-Famagusta and another one from Turkey-Istanbul were provide from pharmacies. Eight ingredients of Cyprus tea were determined through microscopic analyzing method and nine ingredients of Turkish tea also recognized with the same method in this experiment. **Result:** The examined Istanbul herbal form tea and Cyprus form herbal tea contain the expected ingredients in contrary to American herbal supplements like; GNC, Walmart, Walgreens... which they did not contain what they claim – instead cheap fillers like wheat and soy powder. In the first one called Istanbul tea contains; *Camellia sinensis*, *Ilex paraguariensis*, *Calluna vulgaris*, *Foeniculum vulgare*, *Zea mays*, *Hibiscus sabdariffa*, *Rosmarinus officinalis*, *Cassia angustifolia*. The second, Cyprus tea have three same species *Foeniculum vulgare*, *Zea mays* and *Cassia angustifolia* the others remaining ingredients are; *Rosa canina* (Rosehip), *Urtica dioica* (Nettle), *Coriandrum sativum* (Coriander), *Rubus idaeus* (Raspberry leaves), *Juniperus communis* (Juniper fruit), cherry stems. **Conclusion:** According to this study done in Microscopy Laboratory, Faculty of Pharmacy of Eastern Mediterranean University, herbals teas of our interest has correct content as it was expected. Cyprus tea compare to Istanbul tea has higher amount of each ingredient per tea bags also Cyprus tea was more expensive due to more ingredients it contains. According to this study it indicates the safety assessment of Turkish Pharmaceutical and herbal products in the market which it is reliable unlike some worldwide pharmaceutical companies. Both teas contain clear, non-toxic ingredients which have different beneficial effect on obesity and health for whom they purchase and consume. Both teas contain other parts of plants which does not mentioned on their labels. Some tiny unknown parts found during analyzing in tea bags of sample 1 & 2 that could not be identified, which it was not mentioned about their presents on the boxes.

Keywords: Microscopic Analyze, Herbal Teas, Istanbul Tea, Cyprus Tea, Losing Weight

INTRODUCTION

The market opportunity of herbal tea industry has attracted more and more enterprises. Meanwhile, because of its long history of development, herbal tea has evolved into various varieties with regional characteristics. Therefore, before entering into industrialized production, herbal tea has become diversified and taken on different features in different regions [1]. Herbal slimming teas are very similar in their composition to "fat-burning" pills and supplements. They use several mechanisms, which vary greatly from product to product [2].

Thermogenic stimulants are those that are believed to increase the metabolism, thereby burning calories. Caffeine is the most common of these stimulants. Lipolysis agents are herbs that are believed to cause the body to prioritize burning fat as fuel. Appetite suppressant herbs are intended to reduce the desire for food. Herbs that promote proper digestion are intended to improve nutrient absorption and thus reduce the overall quantity of food needed. Diuretics specifically target

water weight; they can therefore lead to a temporary appearance of being slimmer but do nothing to remove actual body fat [3]. Herbal teas are not regulated by the U.S. Food and Drug Administration, and the claims they make about

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weight loss may not be backed up by actual medical evidence. This is especially true for diuretics and laxatives, which can cause serious harm if used for an extended period [4,5].

The first question asked by people who decided to buy tea for weight loss: "What is best for weight loss tea?" Maximum efficiency for each person will be a quality drink. How can ordinary consumers to distinguish the normal product from a fake? Experts recommend carefully examine the composition of the mixture. If it includes the recipe stabilizers and flavorings, as well as other chemical substances, such a beverage may contribute to weight loss and will be, but it will certainly harm health. Try not to depend on promoting, offering the best thinning tea, which apparently for a brief timeframe alongside the disposal of abundance fat fix the skin and dispose of numerous illnesses. It is comprehended that wonders don't occur throughout everyday life. In the assessment of nutritionists, the best teas for weight reduction - which can be found in the drug store. They come surely understood huge organizations and have the best possible quality. Purchasing thinning tea in the drug store, it isn't important to concentrate on its worth. Cost great item need not be high.

When it will purchase it is necessary to carefully examine the packaging. It should contain all the necessary information, as well as the name and address of the manufacturer. Directly on the packaging should be an indication of the presence of the hygienic certificate, bearing the expiration date and the list of ingredients included in the collection. The results of the scientific studies clearly demonstrate that obesity is an enormous risk to public health. According to a study conducted by the World Health Organization, there are over four hundred million obese people in the world and slightly overweight individuals around one and a half million. Over the last twenty-five years, obesity rates are increasing in our country. Therefore, weight loss products around the world constitute a major commercial market. There is a growing interest in natural slimming products that are believed to be more reliable in human beings and lack of health risk because of the risks they are inherent in the various synthetic weight loss drugs available in the market. However, people can be deceived by the fact that State Institutions do not exercise sufficient supervision on the market of natural products. For products approved by the Ministry of Agriculture, examination of the difference between the content information on the package and the formulation content is necessary. In this study, two different sales herbal tea slimming preparations were investigated on the market. One of them was from Turkey-Istanbul named Pharma green (8 mixed Plant Stream). Other one is bought from Cyprus-Famagusta pharmacy named Hk Gunvit Naturalist (9 mixed plant Stream). The aim of this study is to examine the preparations which are sold in pharmacies and which are used for weight loss in terms of the formulation content and to observe the correctness of the preparations.

Teas are one of the basic commonly used drinks [6,7]. With a long history of development in the world, herbal tea originally existed as a form of effective folk medicine, demonstrating successful application of traditional medicine among the general public. As an effective folk medicine and a dietary supplement, herbal tea is able to clear heat, resolve toxin and eliminate dampness. As a result of various microscopic studies, it has been tried to prove that the written ingredients on the box of the herbal teas are inclusive in each tea bags and the main target is to is to prove teas are containing what they claim, Instead of cheap fillers like wheat and soy powder.

RESULT AND DISCUSSION

A. Fotovision Pack of Istanbul tea (front and Rear side)

On the front surface of the package is the name of the tea used for the name and the names of the plants in Turkish and Latin (Figure 1).



Figure 1: Turkish tea box

MATERIALS AND METHODS

1. Fotovision of each ingredients

Eight plants are said to be written on the package. Apart from these plants, the package also contains shell and trunk parts which are not written on the package and cannot be identified but in very small amount.

- 1.1 *Camellia sinensis*
- 1.2 *Ilex paraguariensis*
- 1.3 *Calluna vulgaris*
- 1.4 *Foeniculum vulgare*
- 1.5 *Zea mays*
- 1.6 *Hibiscus sabdariffa*
- 1.7 *Rosmarinus officinalis*
- 1.8 *Cassia angustifolia*

B. Fotovision Pack of Cyprus tea (front and rear side)

On the front surface of the package is the name of the tea used for the name and the names of the plants in Turkish and Latin (Figure 2).



Figure 2: Weight Control and Detox Package (Rear Side) of Cyprus tea

On the back surface of the package, it is mentioned that the plants are produced in Izmir, in Latin and Turkish names, usage instructions, storage conditions, production date, expiry date, a hundred grams plant in total

2. Fotovision of each ingredients

Nine plants are said to be written on the package.

On the back surface of the package, it is mentioned that the plants are produced in Istanbul, in Latin and Turkish names, usage instructions, storage conditions, production date, expiry date, a hundred grams plant in total.

- 2.1. *Cassia angustifolia* (Senna)
- 2.2 *Foeniculum vulgare* (Fennel)
- 2.3 *Rosa canina* (Rosehip)
- 2.4 *Urtica dioica* (Nettle)
- 2.5 *Coriandrum sativum* (Coriander)
- 2.6 *Rubus idaeus* (Raspberry leaves)
- 2.7 *Juniperus communis* (Juniper fruit)
- 2.8 Cherry stems
- 2.9 *Zea mays* (Corn tassel)

The efficacy and safety of any pharmaceutical product is determined by the compounds (desired and undesired) which it contains. The purpose of quality control is to ensure that each ingredients presents in product and is, as far as possible, free of impurities. As herbal tea products are mixtures which originate from planetary sources, great efforts are necessary to guarantee a constant and adequate quality. By cautiously choosing the plant material and an institutionalized assembling process the example and centralization of constituents of natural tea items ought to be kept as consistent as conceivable to convey the ideal outcomes. With the expanding utilization of home grown items, especially in the United States, the future overall naming practice for natural items ought to satisfactorily address quality perspectives [8].

Bought Herbal teas is produced using regular herbs deliberately handled to fulfill the guideline of home grown tea arrangement. No synthetic concoctions added to keep buyers sheltered and sound. This tea lessens weight by flushing out undesirable fats and poisons from the body. It also helps ease up digestion and constipation. So regular use of these products promotes not only slimmer and sexier body but also for a healthy digestive system. Herbal teas are not only known for its effectiveness but also for its cheaper price compare to other leading herbal products. This study is a thesis project carried out in the Faculty of Pharmacy experimentally. It was perfectly achieved the main goal which it was focused on identifying the written ingredients on herbal teas packages and obtain the correct information about the mentioned plants in the herbal products.

The examined Istanbul herbal form tea and Cyprus form herbal tea contain the expected ingredients in contrary to American herbal supplements like; GNC, Walmart, Walgreens... which they did not contain what they claim –

instead cheap fillers like wheat and soy powder. In the first one called Istanbul tea contains; *Camellia sinensis*, *Ilex paraguariensis*, *Calluna vulgaris*, *Foeniculum vulgare*, *Zea mays*, *Hibiscus sabdariffa*, *Rosmarinus officinalis*, *Cassia angustifolia*.

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CONCLUSION

Herbal Teas have been studied for their ingredient and microscopically analyzed to ensure the correctness of the information written on the packages, because in some cases labels may be incorrect, accidentally or intentionally. According to this study done in Microscopy Laboratory, Faculty of Pharmacy of Eastern Mediterranean University, herbals teas of our interest has correct content as it was expected. Cyprus tea compare to Istanbul tea has higher amount of each ingredient per tea bags also Cyprus tea was more expensive due to more ingredients it contains.

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