



## Assessment of Complications Caused by the Prescription-Free Consumption of Herbal Medicine with the Purpose of Weight Gain: A Case Report

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### Abstract

In recent years, the common belief that herbal medications cause no side effects, have led to an increase in the consumption of these medications without prescription. Ginseng is one of the most commonly used herbs in the world and is a native of Eastern Asian countries such as China and Korea. It is also known to have several medicinal purposes. However, unreasonable use of this herb can bear consequences. In the current article, 28-year-old woman has consumed 4 capsules each day, which contained Ginseng roots, Alfalfa (*Medicago sativa*) extract, and Ziziphora (*Ziziphora capitata*) extract without a prescription to gain weight, which has resulted in serious side effects - including hepatotoxicity, psychologic, and gynecologic disorders. However, these symptoms were controlled with Chicory roots, Purslane and Jujube oxymel. PM focuses on the cooperation between food categories, nutritional instructions, food modulators, and medications. Regardless of their several therapeutic effects, medical herbs have been known to cause quite serious side effects if consumed unsystematically and without the surveillance of a doctor

**Keywords:** Ginseng; Hepatotoxicity; Drug abuse; Persian medicine; Case report

### Introduction

In recent years, people have been paying more attention to herbal medicine, along with the assumption that such medications bring zero or

very few serious side effects. Furthermore, ease of trade between societies has transported some herbs -which there may not be enough information about- into various countries, making them

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available to the public. It is obvious that regardless of their medicinal properties these herbs may cause side effects if consumed carelessly and without consulting a doctor or considering background diseases [1,2].

In this case report, the side effects caused by a natural combination containing Ginseng that has been consumed without prescription or the surveillance of a doctor have been assessed.

### Case Presentation

The patient is a 28-year-old married woman without children who started taking unknown herbal medicine to gain weight since July 22nd, 2019. She took 4 capsules each day (2 at noon and 2 at night), which contained Ginseng roots, Alfalfa (*Medicago sativa*) extract, and Ziziphora (*Ziziphora capitata*) extract. This resulted in her gaining 3 kg in a short period.

Since August 12<sup>th</sup>, she began experiencing fatigue followed by fever, chills, excessive sweating, and general soreness of the body - which increased gradually. Therefore, she stopped taking the medications and visited an internal physician on her first admit.

She later experienced a lack of appetite, severe constipation, increased pain, and movement limitation in her joints to the point in which she had difficulty performing daily tasks. She also complained about the disruption of her monthly periods, occasional nocturia, and insomnia. Her breasts had become large and painful and a few degrees of skin changes were spotted, including an increase of pigmentation on the hands and chest and a lack of pigmentation on the back of the neck.

During her second admit with a gastroenterologist on September 29<sup>th</sup>, 2019, her test results indicated a severe increase of liver enzymes which brought up the possibility of rheumatism or side effects of herbal medicine. Therefore, an immunosuppressive treatment including 50mg of Azathioprine and 50mg of Prednisolone every day was prescribed.

During her third admit on March 10<sup>th</sup>, her clinical symptoms had weakened, her liver enzymes were reduced and she was generally feeling well enough to stop her medications.

During her fourth admit on June 20<sup>th</sup>, 2019, she mentioned that due to terrible family problems she had divorced her husband and was under a lot of psychological pressure in the past few months. Not only did she complain about optical illusions and sleep disorders, but she also mentioned that she had not been following her nutritional instructions. Besides, the Para-clinical test results indicated another increase in liver enzymes. Therefore, the same doses of Azathioprine and Prednisolone were prescribed for 3 months.

On her first visit to the PM clinic, her test results indicated a decrease in liver enzymes. During the time in which the patient took her medications disorderly, she was still experiencing sleep disorders, psychological and mental reactions. However, she was afraid the symptoms might intensify once again and wanted to continue the treatment with PM techniques. Therefore, she was advised to taper the medications and follow the nutritional instructions - including the consumption of a soup containing oat, carrots, coriander, and parsley every night. She was also

prescribed to take 3 capsules a day - containing chicory roots and purslane - rice bran twice a day, and jujube oxymel one glass per day.

During her second admission to the PM clinic on January 4<sup>th</sup> 2020, her test results were completely normal, constipation was cured, and the patient was feeling generally better. She was discharged while prescribed with the continued consumption of herbal liver nutrition capsules. She had no problems during another admit on February 4<sup>th</sup> 2020, and the following admissions up until November 2020 (table 1).

## Discussion

The capsules taken by the patient contained the extract of ginseng roots. Ginseng is one of the most consumed Herbs in the world and has been known to have many therapeutic effects and uses. It is a native of China and has so many energizing and healing properties that it has been referred to as a panacea in eastern medical references. Chemically, Ginseng contains steroid glycosides including Panakilon and a Saponin called Panaxoside or Panaxin. It also has positive effects on the memory, immune system, and cardiovascular system. It can control flashing in menopause and sexual problems in both sexes, and also increase blood pressure [3,4].

The leaves and fruits of this plant are not very commonly used. However, the roots can be used for medical purposes. In addition, the time of harvest and techniques of production strictly matter since they determine the type of Ginseng (Red or White). The permissible daily dosage is 1-2 g of Ginseng roots [5]. Even though it has been taken to and harvested in various parts

of the world such as Russia, India, Europe, and America, the Chinese and Korean types have proven to be more effective and have fewer side effects than the American and Indian types [6]. One of the most serious side effects of this drug is Ginseng Abuse Syndrome, which can appear due to the consumption of high doses or sudden disruption of the drug. It can cause insomnia, malaise, muscle hypertonia, hepatotoxicity, nausea, vomiting - or other gastrointestinal symptoms - period disorders, breast enlargement, pain and occasional edema, headache, coagulation disorders, and increase of blood pressure [5].

Alfalfa extract was another ingredient in these capsules. Alfalfa, known for thousands of years, is an herb full of minerals that can improve growth and cause distention. However, no other side effects have been reported on it [7].

The third ingredient in the capsules was the extract of Ziziphora from the order of Lamiales, which can be quite similar to thyme. It has no serious side effects and is often used as a condiment [8].

Given the patient's condition and the description of her illness, Ginseng Abuse Syndrome was diagnosed. Symptoms of Hepatotoxicity were explained to the patient and the treatment began.

The herbal capsules prescribed to the patient to improve her liver condition contained chicory (*Cichorium intybus*) roots and purslane (*Portulaca oleraceae*), which not only cured the damage to the liver but also returned the periods to natural condition after a year - due to the connection between the liver and the uterus.

PM resources suggest that chicory has multiple effects including stagnation opening, liver improvement, humor modulation, blood purification, and gastritis control. More recent studies have shown it to be antimicrobial, anti-diabetes, and protective of the liver [9,10].

Purslane is anti-oxidant, anti-inflammation, and analgesic. It is not only beneficial in healing wounds but can also control hemorrhoids and the excessive heat of the liver. Furthermore, it is diuretic and can reduce the heat of yellow bile humor and blood [9,11].

PM especially focuses on the treatment of constipation, in which rice bran can be effective [9]; just like it was in this case.

Jujube oxymel consists of vinegar, honey, and jujube (*Ziziphus jujuba*) extract, which is penetrable in tissues. It can also open liver stagnation and activate its enzymes [12].

Jujube purifies the blood and reduces thirst, liver and kidney pain, inflammation, and hepatotoxicity. Moreover, It can produce normal sanguine humor, dilute humors of high consistency, absorb, and drive out those of low consistency [9,13].

One cannot generally assume that herbal medications cause no side effects. Regardless of their many effective therapeutic properties, these herbs may cause side effects if consumed unsystematically. Therefore, it is better to consult

**Table 1.** Variation of liver enzymes in this case.

Date of admit	AST (IU/L)	ALT (IU/L)	Alkaline Phosphatase (IU/L)
29 Sep 2019	1015	875	233
20 June 2019	242	359	240
20 Nov 2019	47	60	160
4 Jan 2020	22	15	36

a doctor before submitting to any diet with the purpose of weight gain or loss. PM always emphasizes the use of food modulators to reduce the possible side effects of nourishments and medications [14,15].

### Conflict of Interest

None.

### Acknowledgments

None.

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