

Water Cress in Traditional Medicine of Iran and Modern

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Keywords: Hydrophytes, Water Cress, traditional medicine, Medicinal herbs.

I. INTRODUCTION

Water Cress with the scientific name of *Nasturtium officinale* R. Br. is a species of the family of wallflower or mustard (Brassicaceae). The height of this hydrophyte is 10-60 cm and its leaves are dark green and its flowers are clustered and white. It has creeping stem from which small white toots come out and it usually grows by streams and swamps. It can be seen in most parts of Iran and its flowering season is from May to July. This plant grows in wild in many parts of Asia and Europe. It has a lot of Fe, Ca, folic acid, and a little of the vitamins C and A. The absorbable Fe in it is more than the Fe in spinach, then it can be effective to cure anemia. Also its Ca is more than milk and its vitamin C is more than orange (1).

II. MATERIAL AND METHOD

It is a library study with narrative-review method using traditional medicine books and searching database.

First traditional medicine source were studied and then the modern scientists' findings about medicinal properties and

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main ingredients of water Cress were mentioned.

III. FINDINGS

A. Botany:

Watercress (other names: Kalashak, Bolaq oti, Nasturtium, Garden cress, Water cress)

Botany: It is a plant from Wall flower family with the height of 10-50cm, little dark green leaves, little clustered flowers, and the little, white roots coming out from creeping stem which grows near streams and swamps (1). It flowering season is from April to July and its usable segment is the leaves (2).

B. The Effective ingredients:

Studies show that there are Beta-carotene erucic acid, routine fiber, ascorbic acid, Ethyl-phenyl isothiocyanates, alanine, glycine, methionine, niacin, pantothenic acid, glutens and riboflavin in the leaves and flowers of this plant which causes its anti-cancer property (2). Water cress contains a noticeable Fe, Ca, folic acid and little vitamins A and C. The absorbable Fe of this plant is more than spinach and so it can be used to cure anemia. Also its Ca is more than the Ca of milk and its vitamin C is more than the vitamin C of orange (1).

C. Traditional Medicine sources:

From the ancient times people were familiar with water Cress and attributed various therapeutic properties to it. It was many people's favorite because of its medicinal properties and spicy and savory flavor. Xenophon s the Greek commander and historian told his soldier to eat watercress to strengthen them. Also, in his book about Cyrus the Great he wrote that watercress was one of the main foods of Persians in their training centers. He wrote about the Persian children: "Their main food contains bread and Water cress which they bring from their homes. They have a cup in which they drink water from river." He wrote about teenagers: Teenagers' other food, except what was mentioned, was just the meat of hunted animals or Bolaq oti (water Cress)"(4). The Greeks and Anglo-Saxons used watercress to cure baldness. Gerard prescribed this plant to treat young girls' white jaundice. Francis Bacon thought it has a magical property to restore the youthfulness of old women. The Irish believed that it was a precious plant which was eaten by wise people. Hippocrates prescribed it as mucus and Dioscoride thought it was diuretic. The raw water Cress or its essence is a strong anti-scurvy. A short-term

consumption of this plant can cure the side effects of the lack of vitamin C. It is thought that this plant is a blood purifier, strengthener, diuretic, appetizer, stomach tonic, calming the nerve pain, parietic and paraciticide. The mentioned properties as specially applied in common People's medicine. This plant is helpful to treat diabetes and can be used as an expectorant. It can decrease the sugar in diabetic's urine and control eczema and baldness.

D. Modern Sources:

A lot of studies show water Cress is an anti-cancer plant. In 2010 a survey in south Hampton University demonstrated that only short while after consuming about 80 gr watercress, the amount of anti-cancer molecules in blood increased and prevented the growth of breast cancer cells, In this way, it prevents the treat cancer growth and recurrence and also it helps to cure the people how suffer this disease (6). A published paper in the journal of "cancer Epidemiology" in 1995 Showed a decrease in the lung cancer progression in smokers by regular daily consumption of 57 gr of water cress (7).

Another survey in Ulster University which was published in "American Journal of clinical Nutrition" in 2007 declared that the daily consumption of 85 gr of this plant during 8 weeks decreases 23 percent of white cells damage caused by cancer. The positive effect of watercress in smokers is more remarkable them others probably it is because of the lack of antioxidants in their bodies (8).

E. Side Effects:

Since overusing this plant controls cytochrome enzyme of 45 P, it may disrupt some medicine metabolisms.

F. Discussion and Results:

In traditional medicine water Cress has several uses. It can be used as a very sputum, blood purifier, strengthener, diuretic, appetizer, stomach tonic, calming nerve pains, pyretic, paraciticide.

From the effective substances in water Cress we can name Beta-carotene, Erucic acid, fiber routine, ascorbic acid, phenol ethyl phenyl isothiocyanates, Alkyne, Glycine, methionine, Niacin, pantothenic, serine acid, riboflavin and tyrosine (2). However, commenting on the medicinal properties of water Cress needs further laboratory and clinical researches accompanied with effectiveness and safety analysis.

The conclusion of this investigation says that the texts of traditional medicine of Iran have particular instructions and orders about herbal plans such as watercress. By implementing these about herbal plants such as water Cress. By implementing these orders and instructions with modern science and researches on this subject we can be economical in economy, society and emotion.



Fig. 1 Water cress

RESOURCES

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