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EFFECTS OF AXILLEINE ALKALOIDS ON HUMAN HEALTH IN ORDINARY ACHILLEA MILLEFOLIUML

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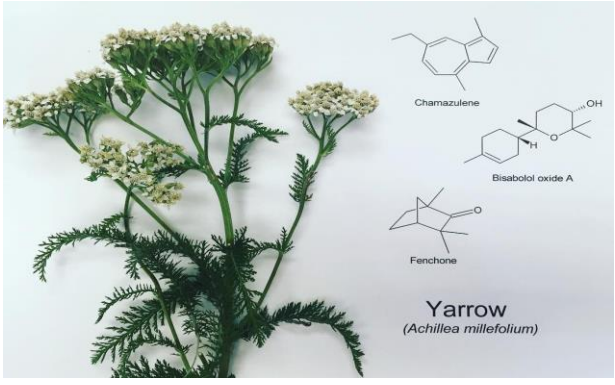
Annotation
This article provides detailed information on the physiological characteristics, chemical composition, amount and function of biologically active substances found in the common dye plant, which is a medicinal plant, and their role in human health.

Keywords: Achillea Millefolium, chemical composition, pyrrolizidine alkaloids, gastritis, drugs, duodenal reflex, antidotes, healing properties, achilleine

Introduction

Mankind has long been in need of medicinal plants, and these needs are still relevant today. Chemical composition of ordinary dye contains biologically and chemically active substances such as carotene, vitamins K and C, alkaloids of achillein and betonicin, up to 0.8% of essential oil, matricarin isomer, millefin lactone, 0.31% of choline, asparagine, tar, astringent, bitter (proxamazulene-achilleine) and other substances. The essential oil contains 1-4% of chamazulene (the main part is formed from proxamazulene during the extraction of essential oil), thyme, camphor, borneol, carioffillen, up to 10% of sineol, formic, acetic and valeric acids. The medicinal properties of the common dye are largely due to the alkaloid achilleine.

It is used in the treatment of diseases of the axillary gastrointestinal tract (gastric ulcer and gastritis and inflammation of the mucous membranes), as an appetite suppressant and anticoagulant (intestinal, uterine and hemorrhoidal bleeding) and in bleeding from the nose, gums and wounds used to stop. Achilles belongs to the group of pyrrolizidine alkaloids.



Pyrrolizidine alkaloids (PA) are a group of naturally occurring alkaloids based on the structure of pyrrolizidine. Pyrrolizidine alkaloids are produced by plants as a protective mechanism against insect

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bites. More than 660 PA and PA N-oxides have been identified in more than 6,000 plants, about half of which exhibit hepatotoxicity. They are most common in plants of the families Boraginaceae, **Asteraceae,** Orchidaceae and Fabaceae. Less common in convulsions and poaceae, and in at least one species of lamiaceae. It is estimated that 3% of flowering plants in the world contain the alkaloids pyrrolizidine. Honey may contain the alkaloids pyrrolizidine, To date, there is no international regulation of PA in food, unlike herbs and drugs.

Unsaturated pyrrolizidine alkaloids are hepatotoxic, meaning they damage the liver. The disease associated with PA consumption is called pyrrolizidine alkaloidosis.

Gastritis (Greek: gaster - stomach, stomach) - inflammation of the gastric mucosa; often accompanied by gastric secretion and impaired motility. In humans, malnutrition, alcoholism, regular consumption of bitter and salty foods, food poisoning, unintentional use of various drugs, allergies, Helicobacter pylori and others are the causes. Depending on the course of the disease, there are acute and chronic gastritis.

When gastritis is caused by a weakening of the protective function of cells at the level of the duodenal reflex or the immune system in the body, achilleine has a positive effect on it.

The duodenal reflex is the incorrect entry of bile from the duodenum into the stomach. As a result, the walls of the stomach become inflamed, and the chemical composition of gastric juice changes. The pathology first occurs in the antral part of the stomach and then completely affects the organ.

Weakening of the protective function of cells indicates that their normal functioning is disrupted. These, in turn, lead to a number of negative pathological processes, changing the pH balance of gastric juice and inflammation of its walls. As a result, internal poisoning occurs, and the stomach begins to react negatively to the salinity of the juice it produces.

Achilleine tendon can be affected by gastritis as follows: Detoxifiers (antidotes), antidotes (Greek antidoton - antidote) - chemicals that detoxify toxins that enter the body in various ways. When a sick person is given a tincture of dye, the poison that enters the body is removed or neutralized before it is absorbed into the blood. For example, in gastritis, due to intoxication of the stomach in an acidic environment, achilleine neutralizes it by creating an alkaline environment.

Vitamin K in dandelion is the name of a group of lipophilic (fat-soluble) and hydrophobic vitamins required for the synthesis of proteins that maintain a normal level of blood coagulation. It is chemically a derivative of 2-methyle-1,4-naphthoquinone. It plays an important role in muscle and connective tissue metabolism, as well as in the healthy functioning of the kidneys. In all of these cases, the vitamin is involved in the absorption of calcium and the interaction of calcium D.

Achilleine is an alkaloid of pyrrolizidine, a hemostatic component of dandruff. This is a subcategory of alkaloid chemicals that have a common basic structure. Achilles is found in the upper parts of the plant. Despite its remarkable healing abilities, achilleine is poorly studied. However, since similar chemicals often have similar functions, it is possible to draw some conclusions about achilleine by looking at other pyrrolizidine alkaloids. From an environmental point of view, these alkaloids are commonly used by plants as a toxin to prevent the consumption of herbivores. Many animal poisonings have occurred as a result of consuming plants that contain such chemicals. Sheep, goats, and small mammals have a

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much higher resistance to pyrrolizidine alkaloids than other livestock. Many plants and chemicals can be toxic and medicinal depending on their dose. Yarrow is more of a medicine for people than a poison. For centuries, it has grown alongside humans as a healer, and this legacy can continue in the distant future.

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