Analysis of Medicinal Composition and Pharmacological Action of Chinese Medicine Honeysuckle

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Abstract: Objective: To analyze and study the medicinal components and pharmacological effects of traditional Chinese medicine honeysuckle, and to provide important clinical value for future clinical treatment. Methods: Actively review relevant literature reports and medical works related to honeysuckle, and carry out scientific statistics and summary on its medicinal components and clinical pharmacological effects. Results: The main medicinal ingredients were volatile oil, triterpenoid soap and organic acid and acid compounds; it has many pharmacological effects, such as antibacterial, anti-inflammatory, liver-protecting, anti-viral, hemostasis and so on. Conclusion: The traditional Chinese medicine honeysuckle has a very high medicinal value in clinical practice, and can be actively promoted and used in the clinical treatment of Chinese and Western medicine.

1. Introduction
Honeysuckle is a kind of traditional Chinese medicine plant. It is common in clinical practice and has many functions, such as hemostasis, detoxification and heat dissipation. It is also known as double flower, honeysuckle flower and silver flower. It has the reputation of “National Treasure One Flower”. Its vines and flowers can be used as medicines, and the most obvious effect is flower [1]. At present, many kinds of medicines on the market have the components of honeysuckle, and have been widely used, such as Yinhuang injection. Because honeysuckle has a variety of medicinal ingredients, it can exert a variety of pharmacological effects. This is a kind of water-protective ecological plant, which is a heat-clearing and detoxifying medicine. It is sweet and cold, and it is warm and hot, sore throat and skin. Infection, anti-inflammatory coagulation and other diseases have a significant effect, which contributes to the enhancement of immunity in the body, but it is not suitable for those with spleen and stomach deficiency and qi deficiency. Honeysuckle is widely distributed in China, such as Shandong, Guangxi, Hunan, Guangdong, Henan, Anhui, Sichuan, Shaanxi, Jiangxi, Guizhou, etc. This is a kind of plant with medicinal economy and water conservation ecology. It has a wide range of applications and is widely used in many fields such as ornamental gardening, health food and cosmetics. At present, honeysuckle has become a valuable medicinal material in China, and the honeysuckle ingredient is present in various clinical preparations. The medicinal components and pharmacological effects are summarized and analyzed.

2. Materials and Methods
2.1 Basic Information
The traditional representative medical books, Chinese medicine medical clicks, theoretical research, medical journals and articles about Chinese medicine honeysuckle.
2.2 Research Method
Scientific statistics and analysis of the biological research of honeysuckle, its quality research, herbal research, medicinal ingredients and pharmacological effects, etc., focusing on the exploration of medicinal ingredients and pharmacological effects.

3. Result
The medicinal components of honeysuckle mainly include four kinds, namely flavonoids, volatile oils, triterpenoid soap compounds and organic acids. The pharmacological effects are mainly reflected in antipyretic, anti-inflammatory, antibacterial, anti-viral, hemostasis, etc. See Table 1 for details.

| Medicinal Ingredients | Pharmacological Action                |
|-----------------------|--------------------------------------|
| Flavonoids            | Anti-inflammatory, Antibacterial      |
| Volatile Oil          | Heat Dissipation                     |
| Triterpenoid Soap     | Liver and Gallbladder                |
| Organic Acid Compound | Hemostasis, Antibacterial, Antiviral, Disinfection |

4. Discussion

4.1 Medicinal Ingredients
Honeysuckle flower buds contain a variety of substances, the highest content of which are organic acids (6%), mainly chlorogenic acid, linoleic acid, tannic acid, etc.; followed by flavonoids (3.55%), including glucosides, quercetin, hyperoside, etc.; followed by volatile oil (0.6%), the measured ingredients include more than 30 kinds, such as terpineol, eugenol, fragrant alkene, methyl benzoate, Acacia alcohol and so on.

4.1.1 Flavonoids
Japanese scholars have extracted honeysuckle and luteolin from honeysuckle, and Chinese scholars have extracted four compounds. There are many extraction methods, such as solvent, water, alcohol, and ultra-high pressure extraction. Water and alcohol extraction are affected by various factors, such as temperature, reflux time and solvent extraction, and ultrahigh pressure extraction. The extraction rate is relatively high. According to the research, luteolin can effectively inhibit a variety of bacteria and viruses, such as staphylococcus aureus, escherichia coli, poliovirus, etc., and can hinder the growth of Leishmania donovani. Hypericin has a significant local analgesic effect, which is significant compared to aspirin and does not cause high dependence. This is a novel analgesic drug ingredient [2].

4.1.2 Volatile Oil
One of the most important medicinal ingredients in honeysuckle is volatile oil, which is used in the synthesis of flavors or fragrances and has the effect of evacuating wind and heat. The volatile oil is mostly distributed in the branches, vines, branches and flowers. Because of its low boiling point and lipophilicity, the relative molecular weight is not large. For this reason, steam distillation or carbon dioxide extraction can be used for extraction. It is worth mentioning that during the extraction process. The temperature needs to be effectively controlled to ensure the extraction rate. In addition, the extraction content varies greatly depending on the flowering period and location. At present, the main components proposed by the GC/MS include linolenic acid, tetradecanoic acid and hexadecanoic acid. Nowadays, the volatile oil components isolated from honeysuckle mainly include linoleic acid, palmitic acid, linolenic acid and the like. Terpenoids are the core medicinal components of volatile oils, mainly including sesquiterpenes and monoterpenes. For fresh, already dried honeysuckle, there are significant differences in the content of volatile oil components, the former being mainly aromatic alcohols and the latter being palmitic acid. The antibacterial effect of linalool and citronellol is equivalent, which is 5 times that of phenol, and is mostly used for the treatment of acne. Some
scholars collected, dried and pulverized honeysuckle, and then used steam distillation to complete the collection of volatile oil. Using GC-MS to analyze its chemical composition, it was found that 29 compounds were detected in the volatile oil of honeysuckle leaves. Most of the organic acids and organic acid fats indicate that the potential value of honeysuckle volatile oil is huge.

4.1.3 Triterpenoid Soap
There are 6 glycosyl groups contained in these compounds, and the researchers have refined and isolated 3 kinds of them. Among them, the saponin β has a significant liver-protecting effect. Some scholars have isolated six compounds (AF) from the honeysuckle flower buds, and scientifically unsubscribed them according to chemical degradation and spectral data. F is a new class of compounds named Xin Changchun. Saponin F. The determination of the triterpenoids of licorice can be carried out by reversed-phase high performance liquid chromatography, and it can be seen that in the conditions of 0.15 to 2.25 μg (r = 0.9999) and 0.11 to 1.65 μg (r = 0.9991), the honeysuckle A and the honeysuckle bitterness Glycosides have a good linear relationship, and the average recovery rate is 99.9%, 98.3%, but there is a big difference in the content of the two kinds of honeysuckle in different regions [3].

4.1.4 Trace Element
A variety of inorganic trace elements required in the human body are present in honeysuckle, such as iron, zinc, calcium, lithium, cobalt, titanium, and the like.

4.1.5 Organic Acid Compound
Honeysuckle has been found to contain various organic acid compounds such as isochlorogenic acid, palmitic acid, caffeic acid, protocatechuic acid, and chlorogenic acid. Among them, chlorogenic acid has the highest content of components, which is one of the key biologically active substances, and has various functions such as antibacterial. Hepatoprotective, anti-viral, lowering blood pressure, lowering blood fat, etc.; it can be extracted by various methods, such as enzymatic hydrolysis, ultrasonic extraction, water extraction, etc., wherein the highest concentration is ultrasonic extraction, followed by enzymatic hydrolysis. The most difficult operation is the water extraction method. Isochlorogenic acid has been found to be a mixture of seven isomers. In addition, on the basis of mild improvement in cardiac function, protocatechuic acid contributes to the effective prolongation of myocardial hypoxia tolerance, and the blood pressure reduction induced by hypoxia can be significantly reduced, thereby contributing to slow down the heart rate.

4.2 Honeysuckle Pharmacology

4.2.1 Cooling and Anti-inflammatory
Radiation and anti-inflammatory is the most significant effect of many pharmacological effects of honeysuckle. Studies have found that the medicinal ingredients extracted from honeysuckle can effectively alleviate foot edema, especially for foot edema caused by xylene, egg white, carrageenan, etc., the effect is very significant. At the same time, honeysuckle is also used in the treatment of acute inflammation in clinical practice. Compared with dermatitis and dexamethasone, the clinical effects are significantly different. In addition, honeysuckle helps to promote the probability that mouse peritoneal macrophages phagocytose giant red blood cells, and has a high value in the treatment of infectious diseases.

4.2.2 Stanch Bleeding
The hemostatic effect of the honeysuckle suspension and the charcoal decoction itself is very significant, especially the suspension; while the chlorogenic acid and caffeic acid in the medicinal ingredients also have a hemostatic effect.
4.2.3 Antiviral
The antiviral effect is mainly reflected in the chlorogenic acid in the Chinese medicine honeysuckle. The in vitro pharmacodynamic test conducted by the clinic found that the antiviral effect can be fully exerted by chlorogenic acid in patients with respiratory diseases, especially for the Sarkozy B group type 3 virus and the anti-inclusion virus. Compared with the virion and Shuanghuanglian acne, the antiviral effect of honeysuckle is more significant [4].

4.2.4 Bacteriostatic
The antibacterial and antibacterial effects are mainly exerted by the chlorogenic acid component of honeysuckle, especially for typhoid bacillus, cholera, staphylococcus aureus, klebsiella, hemolytic streptococcus, and the like. At the same time, for a variety of bacteria such as mycobacterium tuberculosis, pneumococcal, pseudomonas aeruginosa, and meningococcus, chlorogenic acid can exert a strong inhibitory effect, and the combination of forsythia can greatly enhance the efficacy. As a traditional Chinese medicine antibiotic, honeysuckle is present in a variety of heat-clearing and detoxifying drugs.

4.2.5 Anti-Oxidation
The antioxidant effect is achieved mainly by means of flavonoids in honeysuckle. Honeysuckle water extract can directly remove hydrogen peroxide in vitro, which can help the neutrophil synthesis and lysosomal enzyme release ability of scalded mice to be significantly reduced, and the antioxidant effect is very obvious. The study found that the anti-oxidation effect of the honeysuckle alcohol extract on the five kinds of oils and fats is very good.

4.2.6 Hepatoprotective Effect
The triterpenoid saponin component in honeysuckle can fully exert the function of protecting liver and gallbladder. The total saponins contained can exert a strong antagonistic effect on CGL4, and are dedicated to the effective relief of pathological liver diseases and the significant reduction of liver necrosis. At the same time, the role of liver and gallbladder can be reflected in chlorogenic acid and caffeic acid. In addition to good liver and gallbladder effect, phytophthora can also effectively reduce fat and lose weight.

As a drug plant, honeysuckle has a high clinical use rate, and there are many kinds of medicinal ingredients, such as stepless elements, volatile oil, triterpenoids, flavonoids and organic acid compounds, etc. Sweet, cold and so on, pharmacological effects are mainly in many aspects, such as hemostasis, liver and gallbladder, anti-inflammatory, antibacterial, widely used in the treatment of a variety of diseases and significant effects, such as tumors, respiratory infections full The use of honeysuckle can achieve the desired therapeutic effect. Nowadays, honeysuckle preparations are available in various kinds, and are used in various modern Chinese and Western medicine preparations, such as Shuanghuanglian injection, Wei C Yinqiao tablets and Yinhuang tablets, Yinhuang injection, Yinhuang containing tablets, etc. Honeysuckle ingredients. Nowadays, with the deepening of modern pharmaceutical research, the medicinal value of honeysuckle has been widely used in research and clinical practice in many fields, such as antibacterial, anti-inflammatory and anti-viral, so it has clinical a very broad application prospect, for this reason, it is necessary to increase the emphasis on clinical treatment and theoretical research in the future, and is committed to continuously improve the relevant research system of Chinese medicine honeysuckle [5].

5. Conclusion
In summary, honeysuckle is a perennial semi-evergreen dry flower bud or flower with initial opening. The flower season is mostly summer, and the aroma is relatively light. It has great use in Chinese and Western medicine preparations, such as Yinqiaosan, double. The preparation of Coptis injection, as an ancient Chinese medicine, is one of the valuable medicines formulated by the State Council [6]. It has a variety of medicinal ingredients, and its pharmacological effects are described in detail in "Shen
Nong's Herbal Classic": sweet and cold, with multiple effects, in redness and heat pain, exogenous wind heat, warm disease and other diseases at first. It is widely used in treatment. With the deepening of clinical research, it is believed that honeysuckle will fully play its role in more fields, such as antibacterial and disinfection.

References:
[1] Yu Yongjun. Analysis of active ingredients and pharmacological effects of Chinese medicine honeysuckle [J]. Inner Mongolia Traditional Chinese Medicine, 2017, 36 (14): 131+150.
[2] Dai Jiangrui. Medicinal composition and clinical pharmacology analysis of traditional Chinese medicine honeysuckle [J]. Journal of Clinical Medicine and Literature, 2017, 4 (58): 11352-11353.
[3] Laboratory Research; Studies from F.H. Ge and Colleagues Yield New Information about Laboratory Research (Homogenate-assisted high-pressure disruption extraction for determination of phenolic acids in Lonicerae Japonicae Flos)[J]. Science Letter,2018.
[4] Li Weidong, Hao Yibo. Study on the medicinal components of honeysuckle and pharmacological effects of traditional Chinese medicine[J].China Practical Medicine,2016,11(24):269-270.
[5] Yang Wang,Qunxian Deng,Haiyan Wang,Yaqian Sun,Lamei Wang. Analysis of bioactive substances and antioxidant activity in leaves and flower buds of Flos Lonicerae[J]. IOP Conference Series: Earth and Environmental Science,2019,237(5).
[6] Huang Xiuying. Medicinal composition and clinical pharmacology analysis of Chinese medicine honeysuckle[J]. Strait Pharmaceutical Journal, 2015, 27(11): 27-28.