



AN OVERVIEW ON BLOOD PURIFIER

Sabia Chauhan*

Department of Pharmacology, CT Institute of Pharmaceutical Sciences, Shahpur, Jalandhar, Punjab, India

*Corresponding Author Email: sabiachauhan09@gmail.com

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ABSTRACT

Blood is a connective tissue which protects us from different problems. Without blood body cannot functions at all and blood doesn't purify itself. When blood does not purifies itself that times kidney, liver and lymphatic system work together that they help's to purifiers the blood. Causes which are included in blood impurities are modern life style, junk food, alcohol etc. If the blood becomes impure it causes different problems e.g. acne, rashes, allergic etc. There is not any proper synthetic medication for blood impurities. Only herbal formulations are used for the blood purifier. In this review article we discussed about the market formulations and the different plants which are used in them with their different activities which are helpful in purifies the blood and also protects from other problems.

Keywords: Blood, Blood purifier, Market formulations

INTRODUCTION

Blood in our body keeps us alive. It is a liquid connective tissue that consists of cells surrounded by a liquid extracellular matrix. The extracellular matrix is called blood plasma, and it suspends various cells and cell fragments. Blood is a specialized bodily fluid in animals that deliver necessary substances such as nutrients, hormones and oxygen to the cells and transport metabolic waste. It also removes waste and toxins from our system in order to keep healthy. It protects us from illness, infection and helps to heal cuts, scrapes and wounds. It is slightly alkaline pH ranging from 7.35 to 7.45¹. While the blood in the body does have a way of purifying itself, that time it needs a little extra help. The kidney, liver and lymphatic system work together to rid the unwanted toxins and impurities from the body system, but sometimes it is too much, and the toxins start to build up which can affect the blood and muscle tissues in a negative way. When liver does not work properly then digestion become poor and the blood making procedure becomes impaired and the blood get impure².

Blood Purifier

When our blood gets impure it firstly effect on the skin. Skin care is part of healthy lifestyle. Skin covers outer body, from dust, pollution, seasonal changes etc. Mild and chronic diseases affecting our skin due to bad habits in our life style. Skin diseases are caused by environmental factors like the presence of bacteria or viruses. Genetic factors also contribute to the development of a numbers of problems. Skin diseases are relatively minor, as they do not any pain or discomfort. Skin disease could be quite serious and perhaps even life threatening. Skin diseases can be mainly of four types: bacterial, viral, fungal, congenital skin diseases³. When blood impure due to bad circulation of blood it causes diseases like acne, pustules and rashes, complications produced from allergies, weak immune system, headache, jaundice, wrinkles on faces, spinning of head, hair loss, weakening eyesight, clamping of joints etc are the general symptoms of blood impurity⁴.

Causes of Blood Impurities

Modern life style has influenced our daily routine to a greater extent bringing in furious changes in our dietary habits and lifestyle in its wake as a result. On the other hand, the rising pollution in the environment has influenced us immensely not only from outside but from our inside within too. The bacteria spread in the environment, gases, polluted water, insomnia, junk foods, late night watching TV, keeping awake, skipping breakfast, incomplete sleep, junk foods, improper breathing, bedrooms not properly ventilated, and lack of exercise, drinking impure water and other harmful drinks, such as: tea, coffee, liquor, soft and drinks, worry, fear, anger, unhappiness etc has tightened its vice grips over the purity of our blood. These entire poisonous elements are entering inside our body giving invitations to several diseases^{4,5}.

Benefits of Blood Purifier

There are not any synthetic medication used for blood purifier that are helpful to purify the blood and helpful for different problems that caused by blood impurities. There are different drugs for the every problem which are related to blood impurities e.g. acne: clindamycin, erythromycin, tetracycline etc, immunomodulators: cyclosporine, tacrolimus etc, for Inflammation: ketoprofen, ibuprofen etc. If these medications are given to a person it effect on the disease but only one disease is cure by that and these medications also shows the side effects. Blood purifier we can use the herbal medications which are helpful to solve these problems with less side effects in herbal medications we use Poly herbal formulation. Blood purifier is helpful in increased the bowel movement at the beginning which is a temporary phase. It takes two or three days, which is recommended because it is very supportive to the blood cleaning process. Either takes small doses in the beginning and increases after two or three days or starts the recommended dose and clear the bowel movement. It activates the sluggish liver and kidney to makes it healthy and more active. With purification of our system our skin gets more healthy, lustrous, smooth and silky with natural glow. A healthy skin is less prone to diseases and infections⁴.

Herbal Market Formulations as Blood Purifier

Ancient time's plants have been exemplary source of medicine. Ayurveda and other Indian literature mention use of plants in the treatment of various human ailments. Researchers conducted on herbs mentioned in the ancient text or used traditionally for Gynaecological ailments have shown remarkable results. Herbal extracts in amycordial are enriched sources of several, micronutrients, bioflavonoid, glucosides, tannins, phytoconstituents. That help restore hormonal balance, tone endometrium, improve capillary permeability improve fertility restore menstrual cycle, relief from various infections even prevent from recurrent conditions. These herbs also help maintain normal physiology and nutritional status of a woman. Different herbal plants which are used in Poly herbal formations that they give their best result with their combinations. There are different market formulation which are helpful in purifying the blood e.g. safi from hamdard, active blood purifier from dabar, raktamrut syrup from bellan pharmaceutical, musaffeen syrup from qarshi, blood purifier syrup from kismat medicare private limited, surakta from baidyanath, purodil from aimli pharmaceuticals etc. In this review we discuss different herbal plants which are useful in blood purifying and cleaning and which are common in different market formulations.

Neem (*Azadirachta indica*) Family: Meliaceae

It is one of the most important detoxicants in Ayurvedic medicine and is used widely for its antiseptic properties. *Azadirachta indica* has been revalidated for a pronounced anti-microbial action against a wide range of Gram +ve and Gram -ve bacteria⁶. *Azadirachta indica* significantly attenuates the stress induced suppression of humoral immune response. *Azadirachta indica* enhances the humoral anti-body response to the antigen, and hence boosts the immune system. *Azadirachta indica* suppresses inflammatory mediators in acne pathogenesis⁷.

Yashtimadhu (*Glycyrrhiza glabra*) Family: Fabaceae

It is the second most prescribed herb in China followed by Ginseng. *Glycyrrhiza glabra* shows remarkable anti-bacterial activity against *Propionibacterium acnes*, resulting in negligible induction of resistance. Flavonoids Glabridin and Glabrene isolated from Yashtimadhu were found to exhibit anti-methicillin resistant *S. aureus* activity. Phytoconstituent of *Glycyrrhiza glabra* effectively decreases one of the most potent classes of inflammatory mediators⁸. Immunomodulatory activity of Yashtimadhu helps in recovery of decreased cellular immunocompetence⁹.

Guduchi (*Tinospora cordifolia*) Family: Menispermaceae

Guduchi plant is used as a medicine to improve the immune system and body's resistance against infections. It has a significant action as an immunomodulator. *Tinospora cordifolia* also showed a good protective effect on the mast cells, jaundice, fever and skin diseases, antiallergic etc properties¹⁰. Antioxidant activity of extract from roots shows that it is an effective natural antioxidant hence prevents radical damage in the body¹¹.

Manjitha (*Rubia cordifolia*) Family: Rubiaceae

It has a long history of use in Ayurvedic medicine. It is a bitter-sweet, cooling herb that reduces inflammation and has anti-bacterial effects. It stimulates the circulation and resolves skin disorders¹². Inhibition of *Propionibacterium*

acnes-induced mediators of inflammation by *Rubia cordifolia* is observed. *Rubia cordifolia*, show statistically significant anti-inflammatory activity by suppressing the capacity of *Propionibacterium acnes* induced inflammation¹³.

Haridra (*Curcuma longa*) Family: Zingiberaceae

The primary active principle in *Curcuma longa*, have been claimed to represent a potential antioxidant and anti-inflammatory agent with phytonutrient and bioprotective properties. Free radicals have been shown to exert deleterious effects on skin and are thought to be involved in ageing¹⁴. Curcumin the spice principle of turmeric (*Curcuma longa*) is a natural yellow orange dye and a good inhibitor of lipid oxidation. Studies demonstrates that *Curcuma longa* pre-treatment has a conducive effect on the irradiated wound and is a substantial therapeutic strategy in initiating and supporting the cascade of tissue repair processes in irradiated wounds¹⁵.

Sariva (*Hemidesmus indicus*) Family: Asclepiadaceae

The drug has long enjoyed a reputation as a tonic, alterative and blood purifier. *Hemidesmus indicus* is a well known drug in Ayurveda system of medicine¹⁶. The extract of *Hemidesmus indicus* root barks, has anti-oxidant properties. The free radical scavenging property may be one of the mechanisms by which this drug is effective in several free radical mediated disease conditions. Moreover it also possesses anti-inflammatory activity¹⁷.

Chopchini (*Smilax china*) Family: Smilacaceae

Chopchini works as Blood cleanser, immunomodulator (selectively reduces over active immune cells), anti-mutagenic (cellular protector), detoxifier and tonic (tones, balances, strengthens overall body functions). The extract from *Smilax china* root has been used as medicinal remedy and reported to retain antimicrobial and anti mutagenic activities. *Smilax china* possesses free radical scavenging activity and protective property of cell's viability, suggesting that the medicinal component of the root of *Smilax china* extracts also contain antioxidant activity¹⁸.

Kalmegh (*Andrographis paniculata*) Family: Acanthaceae

Kalmegh is a blood purifier. It is used as a cure for torpid liver and jaundice. It is a major constituent of the Ayurvedic preparation for skin disorders Hepato-protective and hepato-corrective components improve the process of detoxification and hence prevent the skin disorders¹⁹. Kalmegh has a profound anti-microbial effect, by showing potent, anti-bacterial (against *S. aureus*), anti-viral, anthelmintic (against *Ascaris lumbricoides*), ant malarial activity²⁰. Kalmegh possess significant anti-passive cutaneous anaphylaxis, thus proves to be a potent anti-allergic, also enhances immunity by exerting immunomodulatory effect. Moreover Kalmegh has protective effects on heart by showing, anti-atherosclerotic activity, anti-hyperglycaemic, and antihypertensive effects²¹.

Khadir (*Acacia catechu*) Family: Fabaceae

Khadir extract is used as an immunomodulatory, purify blood, anodyne, astringent, bactericide, refrigerant, detergent, stimulant, styptic, masticatory, expectorant and antiphogistic. Khadir has astringent cooling and digestive properties. Khadir is also used in allergic conditions, colic, diarrhoea and dysentery, boils, in skin afflictions, bed sores, stomatitis, hepatoprotective, antifungal, hypoglycemic activity. To

inhibit growth of micro-organisms, as an anthelmintic, antipyretic, anti-inflammatory, in bronchitis, ulcers, psoriasis, anaemia and gum troubles and has been also used to treat leprosy²².

Tulsi (*Ocimum sanctum*) Family: Labiatae

Tulsi extract is used in management of all skin diseases, anti-stress/adatogenic, antioxidant, immunomodulators²³. The linolenic acid present in tulsi has the capacity to block both the cyclooxygenase and lipoxigenase pathways of arachidonate metabolism which could be responsible for the anti inflammation activity of the oil and hence helpful to decrease the inflammation with acne²⁴.

Bakuchi (*Psoralea corylifolia*) Family: Leguminosae

Bakuchi is used in treatment of variety on skin problems, such as leukoderma, skin rashes, infections and others. Roots, stems, leaves, seeds and blooms are used for skin problems. Every part of plant shows different activity²⁵.

Chitra (*Berberis aristata*) Family: Berberidaceae

Chitra extract used as an inflammation, wound healing, skin disease, blood purifier, diarrhoea, jaundice and affection of eyes. Pharmacological studies on the plant show antioxidant, antibacterial, antifungal, antipyretic, anti-inflammatory, hepatoprotective, Plant fruit is edible and it is rich in vit-C²⁶.

Aloe Vera (*Aloe barbadensis*) Family: Liliaceae

In Ayurveda, a traditional system of medicine, aloe vera is commonly used in sunburn, minor cuts, insect bites and used as wound healing, anti-inflammatory, antiviral, antitumor, laxative and in the treatment of frostbite and psoriasis. The whole plant as well as its specific parts (leaves, roots), plant extracts and its active constituent mucopolysaccharides (long chain sugars) have been widely used as antiseptic, anti-inflammatory, anti-viral, antitumor and immunomodulators²⁷. Indian system of medicine in India and its use for hepatic ailments is also documented²⁸.

CONCLUSION

Herbal blood purifiers have not single activity they have multiple activity due to poly herbal formulation with lesser side effects. There are different herbal formulations in market which shows the activity of blood purifier mainly and these formulations contain common plants which we discuss in review. These formulation's not shows only blood purifier property but also have other properties like antibacterial, antifungal, immunomodulators, affection's of eyes etc. These formulations have greater effect then their side effects. There is not any specific blood purifier in synthetic medication.

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