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## Review Article

# Raktasaaf home grown ayurvedic medication as blood purifier

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### ABSTRACT

Blood is a connective tissue that defends us against a range of infections. The body cannot survive without blood, yet blood does not purify itself. When the blood does not purify itself, the kidneys, liver, and lymphatic system work together to assist in the purification of the blood. Modern living, bad food, drink, and other factors all contribute to blood pollutants. When blood gets impure, it produces a variety of issues such as acne, rashes, allergic reactions, and so on. It is beneficial in purifying the blood while also protecting it from other issues. For blood contaminants, there is no suitable synthetic treatment. The blood purifier is only made with herbal formulas. In this review article, we reviewed market formulations and the various plants that are utilized in them, as well as their various actions that aid in blood purification and protection from other issues.

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## 1. Introduction

Our bodies are kept alive by the blood that circulates through them. It is a type of liquid connective tissue made up of cells encased in a liquid extracellular matrix. Blood plasma is the extracellular matrix that holds cells and cell fragments in suspension. In animals, blood is a specialized physiological fluid that transports metabolic waste and transports vital substances such as nutrition, hormones, and oxygen to the cells. In order to maintain our health, it also removes waste and pollutants from our bodies. It helps heal cuts, scrapes, and wounds and protects us from illness and infection. pH ranges from 7.35 to 7.45,<sup>1</sup> making it mildly alkaline.

While the body's blood has a method of cleansing itself, it needs a little more assistance at this time. The kidneys, liver, and lymphatic system all work together to remove undesired toxins and pollutants from the body, but

occasionally this isn't enough, and toxins build up, causing harmful effects on the blood and muscle tissues. When the liver isn't functioning properly, digestion suffers, the blood-forming process is hampered, and the blood becomes contaminated.<sup>2</sup>

### 1.1. Blood purifier

When our blood becomes tainted, it first affects our skin. Skin care is an important aspect of living a healthy lifestyle. The skin protects the body from dust, pollutants, and seasonal changes, among other things. Skin illnesses, both mild and chronic, are caused by unhealthy behaviors in our daily lives. Environmental factors such as the presence of bacteria or viruses cause skin disorders. Genetic factors can have a role in the emergence of a variety of issues. Skin illnesses are mild since they do not cause pain or discomfort. Skin illness can be extremely dangerous, even life-threatening. Bacterial, viral, fungal, and congenital skin

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illnesses are the four main forms of skin diseases.<sup>3</sup> When blood becomes polluted owing to poor circulation, it causes ailments such as acne, pustules, and rashes, as well as complications from allergies, a weakened immune system, headaches, jaundice, wrinkles on the face, spinning of the head, hair loss, failing eyesight, and joint tightness.<sup>4</sup>

### 1.2. Causes of blood impurities

As a result, modern living has had a greater influence on our daily routine, leading to quick changes in our eating habits and lifestyle. Increased environmental contamination, on the other hand, has had a huge impact on individuals, not just from the outside but also from within. Bacteria in the environment, gases, polluted water, insomnia, junk foods, late-night TV watching, staying awake, skipping breakfast, inadequate sleep, junk foods, improper breathing, poorly ventilated bedrooms, lack of exercise, drinking impure water and other harmful drinks, such as tea, coffee, liquor, soft drinks, worry, fear, anger, and unhappiness have tightened their vice grips on our blood purity.<sup>4,5</sup>

### 1.3. Benefits of blood purifier

There are no synthetic medications used for blood purifiers that are effective in purifying the blood and treating various illnesses caused by blood pollutants. There are several medications for different problems associated to blood impurities, such as acne: clindamycin, erythromycin, tetracycline, and immunomodulators: cyclosporine, tacrolimus, and inflammation: ketoprofen, ibuprofen, and so on. When these treatments are administered to a person, they have an effect on the condition, but they only cure one disease, and they also have adverse effects. We can use herbal medications to help cure these problems with less adverse effects in herbal medications. We employ Poly herbal formulation in herbal medications. At first, a blood purifier can aid with increased bowel movement, which is a transient phase. It takes two or three days, and it is highly suggested because it aids in the blood cleansing process. Either starts with tiny doses and gradually increases after two or three days, or starts with the suggested amount and wait for the bowel movement to clear. It stimulates the liver and kidneys, making them healthier and more active. Our skin becomes more healthy, glossy, smooth, and silky with a natural shine as our system is cleansed. Skin that is healthy is less susceptible to diseases and infections.<sup>4</sup>

### 1.4. Herbal market formulation as blood purifier

Plants have long been a reliable source of medicine. Plants are mentioned in Ayurveda and other Indian literature as being used to treat a variety of human diseases.

Herbs referenced in ancient texts or historically used for gynecological disorders have yielded astonishing benefits, according to research. Amy cordial's herbal extracts are high in micronutrients, bioflavonoids, glucosides, tannins, and phytoconstituents. That helps to restore hormonal balance, tone endometrium, enhance capillary permeability, improve fertility, restore menstrual cycle, and avoid repeated infections. These herbs also aid in a woman's regular physiology and nutritional state. Different herbal plants are used in Poly herbal formations to achieve the finest results possible.

Various market formulations that aid in blood purification include safi from Hamdard, active blood purifier from Dabar, raktamrut syrup from Bellan Pharmaceuticals, musaffeen syrup from Qarshi, blood purifier syrup from Kismat medicare private limited, surakta from Baidyanath, purodil from Aimli Pharmaceuticals, and so on. In this research, we look at a variety of herbal plants that are good for blood purification and cleaning and are commonly found in various market formulations.<sup>5</sup>

#### 1.4.1. *Neem (Azadirachta indica) family: Meliaceae*

It's one of the most significant detoxicants in Ayurvedic treatment, and its antibacterial characteristics make it popular. The antimicrobial activity of *Azadirachta indica* has been revalidated against a wide spectrum of Gram +ve and Gram -ve bacteria.<sup>6</sup> Stress-induced inhibition of humoral immune response is considerably reduced by *Azadirachta indica*. *Azadirachta indica* improves the immune system by increasing the humoral anti-body response to the antigen. In acne pathogenesis, *Azadirachta indica* inhibits inflammatory mediators.<sup>7</sup>

#### 1.4.2. *Yashtimadhu (Glycyrrhiza glabra) family: Fabaceae*

In China, it is the second most commonly recommended herb, behind Ginseng. *Glycyrrhiza glabra* has excellent antibacterial efficacy against *Propionibacterium acnes*, with little resistance development. Glabridin and Glabrene, two flavonoids isolated from *Yashtimadhu*, were discovered to have anti-methicillin-resistant *S. aureus* action. *Glycyrrhiza glabra* Phytoconstituent substantially reduces one of the most potent families of inflammatory mediators.<sup>8</sup> *Yashtimadhu* immunomodulatory effect aids in the recovery of cellular immunocompetence.<sup>9</sup>

#### 1.4.3. *Guduchi (Tinospora cordifolia) family: Menispermaceae*

The *Guduchi* plant is used as a medication to boost the immune system and strengthen the body's resistance to illnesses. As an immunomodulator, it has a significant effect. *Tinospora cordifolia* also has antiallergic,

antimicrobial, and other qualities that protect mast cells, jaundice, fever, and skin diseases.<sup>10</sup> Antioxidant activity of root extract reveals that it is a powerful natural antioxidant that protects the organism from free radical damage.<sup>11</sup>

#### 1.4.4. *Manjitha (Rubia cordifolia) family: Rubiaceae*

It's been used in Ayurvedic treatment for thousands of years. It is a cooling, bitter-sweet plant that relieves inflammation and has antibacterial properties. It improves circulation and treats skin problems.<sup>12</sup> *Rubia cordifolia* inhibits *Propionibacterium acnes*-induced inflammatory mediators. *Rubia cordifolia* suppresses the capacity of *Propionibacterium acnes*-induced inflammation,<sup>13</sup> demonstrating statistically significant anti-inflammatory effects.

#### 1.4.5. *Haridra (Curcuma longa) family: Zingiberaceae*

*Curcuma longa*'s major active principle has been proposed as a possible antioxidant and anti-inflammatory agent with phytonutrient and bioprotective characteristics. Free radicals have been proven to have negative effects on skin and are thought to have a role in the aging process.<sup>14</sup> Curcumin, the spice component of turmeric (*Curcuma longa*), is a natural yellow orange color and a potent lipid oxidation inhibitor. *Curcuma longa* pretreatment is a significant therapeutic technique in initiating and sustaining the cascade of tissue regeneration processes in irradiated wounds, according to studies.<sup>15</sup>

#### 1.4.6. *Sariva (Hemidesmus indicus) family:*

##### *Asclepiadaceae*

The substance has a lengthy history of use as a blood purifier, tonic, and alterative. In the Ayurvedic medicine system, *Hemidesmus indicus* is a well-known drug.<sup>16</sup> *Hemidesmus indicus* root bark extract possesses antioxidant effects. One of the ways by which this medicine is useful in numerous free radical mediated illness situations is its ability to scavenge free radicals. Furthermore, it has anti-inflammatory properties.<sup>17</sup>

#### 1.4.7. *Chopchini (Smilax china) family: Smilacaceae*

Chopchini is a blood cleanser, immunomodulator (reduces overactive immune cells selectively), anti-mutagenic (cellular protector), detoxifier, and tonic (tones, balances, strengthens overall body functions). *Smilax china* root extract has been utilized as a therapeutic therapy, with antibacterial and anti-mutagenic properties described. *Smilax china* has free radical scavenging activity and cell viability-protecting properties, implying that the therapeutic

component of *Smilax china* root extracts has antioxidant activity.<sup>18</sup>

#### 1.4.8. *Kalmegh (Andrographis paniculata) family:*

##### *Acanthaceae*

Kalmegh purifies the blood. It's used to treat jaundice and torpid liver. It's a key ingredient in an Ayurvedic treatment for skin problems. Components that are hepato-protective and hepato-corrective promote the detoxification process and thus help to prevent skin disorders.<sup>19</sup> Kalmegh has a strong antimicrobial impact, including antibacterial (against *S. aureus*), antiviral, anthelmintic (against *Ascaris lumbricoides*), and antimalarial properties.<sup>20</sup> Kalmegh has a considerable anti-passive cutaneous anaphylaxis action, making it a powerful anti-allergic. It also boosts immunity by acting as an immunomodulator. Kalmegh also protects the heart by having anti-atherosclerotic, anti-hyperglycaemic, and antihypertensive properties.<sup>21</sup>

#### 1.4.9. *Khadir (Acacia catechu) family: Fabaceae*

Khadir extract is utilized as an immunomodulator, blood purifier, bactericide, refrigerant, detergent, stimulant, stypitic, masticatory, expectorant, and antiphogistic. Khadir is astringent, cooling, and digestible. Khadir is also utilized for allergic diseases, colic, diarrhoea, and dysentery, boils, skin afflictions, bed sores, and stomatitis, as well as hepatoprotective, antifungal, and hypoglycemic properties. As an anthelmintic, anti-pyretic, and anti-inflammatory, it has been used to treat bronchitis, ulcers, psoriasis, anemia, and gum problems, and it has even been used to cure leprosy.<sup>22</sup>

#### 1.4.10. *Tulsi (Ocimum sanctum) family: Labiatae*

Tulsi extract is used to treat a variety of skin conditions, as well as being anti-stress/adaptogenic, antioxidant, and immunomodulator.<sup>23</sup> Tulsi contains linolenic acid, which has the ability to block both the cyclooxygenase and lipoxygenase pathways of arachidonate metabolism, which may be responsible for the oil's anti-inflammatory properties and hence useful in reducing acne inflammation.<sup>24</sup>

#### 1.4.11. *Bakuchi (Psoralea corylifolia) family:*

##### *Leguminosae*

Bakuchi is used to treat a wide range of skin conditions, including leukoderma, rashes, infections, and more. Skin problems are treated with roots, stems, leaves, seeds, and blossoms. Every section of the plant is active in a different way.<sup>25</sup>

#### 1.4.12. Chitra (*Berberis aristata*) Family: *Berberidaceae*

Chitra extract is used to treat inflammation, wound healing, skin diseases, blood purification, diarrhoea, jaundice, and eye irritation. The plant's pharmacological properties include antioxidant, antibacterial, antifungal, anti-pyretic, anti-inflammatory, and hepatoprotective properties. The plant's fruit is edible and high in vitamin C.<sup>26</sup>

#### 1.4.13. Aloe Vera (*Aloe barbadensis*) family: *Liliaceae*

Sunburn, minor cuts, bug bites, wound healing, anti-inflammatory, antiviral, anticancer, laxative, and treatment of frostbite and psoriasis are all popular uses of aloe vera in Ayurveda, an ancient school of medicine. Plant extracts and active ingredient mucopolysaccharides (long chain sugars) have all been employed as antiseptics, anti-inflammatory, antiviral, anticancer, and immunomodulators.<sup>27</sup> It is also stated that the Indian system of medicine is used to treat hepatic disorders in India.<sup>28</sup>

## 2. Conclusion

Herbal blood purifiers (Raktasaaf) have no single therapeutics activity but have multiple therapeutics activity due to poly herbal formulation with lesser side effects. There are different herbal drugs formulations in market which have similar activity of blood purifier and Raktasaaf contain common plants which we discuss in review. Raktasaaf formulations' not shows only blood purifier property but also have other properties like antibacterial, antifungal, immunomodulators etc. Raktasaaf have greater therapeutics effect then their side effects.

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The authors declare that there is no conflict of interest.

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None.

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