

Formulation of Sea Buckthorn Diabo Juice on Treatment of Diabetes

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Abstract:- Now days lot of diabetic medicine are available in market having chemical substance. They have lots of side effect but now days lot of anti diabetic medicines are available but sometimes they does not show effect on same patient. Their bodies does not stimulate B-pancreatic cells in bodies which are insulin production.

To overcome this problems by using anti diabetic herbal formulation. It is effective, safe to use It maintain blood sugar level , Regulate the blood flow, It has anti diabetic , antioxidant , anticancer, anti microbial and anti-inflammatory properties without any side effect.

Keywords:- Sea buckthorn, Medicinal research, Effective constituent, Safe to use ,Anti-diabetic, Regulate the blood flow.

I. INTRODUCTION

The fruits of sea buckthorn (*Hippophae rhamnoides L.*) have been used as a drug by traditional Tibetan and Mongolian medicine since ancient times. It has pharmacological effect of the blood circulation, the lungs, the stomach the spleen. Now days this fruit has more value.

This sea buckthorn diablo juice is prepared with certified organic sea buckthorn berries and also formulated with punarnava extract, karela extract, Jamun extract Bael extract, and Neem extract. It provides more than 190 bioactive compounds to our body along with fatty acids, omega 3, 6, 7 & 9. According to scientific studies karela

extract helps to pancreas to maintain healthy blood sugar level. jamun helps control the blood sugar level in our body. the herb punarnava in Ayurveda is very useful in rejuvenating the body and in sugar management. the bael extract poses Anti-hyperglycemic activity as evidenced by lowering blood glucose level in streptozotocin induced diabetic rats (STZ-S). The neem helps the regulate blood sugar level and Aloe Vera used as a preservative.

II. THE PRODUCT CONTAINS

- A. Sea buckthorn
- B. Punarnava extract
- C. Karela extract
- D. Jamun extract
- E. Bael extract
- F. Neem extract
- G. Aloe Vera

A. *Sea Buckthorn* :

Common name: Sea buck thorn
Scientific name: *Hippophae rhamnoides*
Clade :Tracheophytes
Clade :Angiosperms
Clade :Eudicots
Kingdom :Plantae
Division: Tracheophyta
Class :Dicotyledons
Order: Rosales
Family :Elaeagnaceae
Genus :*Hippophae*
Species. : *H. rhamnoides*



Fig 1

Sea buck thorn is commonly known as Hippophae rhamnoides. Sea buckthorn thrives in the harsh conditions and high altitude of the Himalayas. Sea buckthorn is a very beautiful, golden and orange berry, the roots of sea buckthorn trees go down 200 feet deep into the ground. It contains plenty of bioactive compounds along with essential lipids, folic acid, phenols, flavonoids, tannins and plethora of vital minerals. Sea buckthorn contains numerous essential fatty acids including omega 3, 6 & 9 rich source of omega 7 fatty acid. Rare and vital components from plant source. It contains lipid and water soluble vitamins like A, E, B1, B2, B6, C etc. along with several amino acids.

➤ *It has following properties:*

- Anti-diabetic
- Anti-hypertension
- Anti-oxidant

- Anti inflammation effect
- Inhibit cholesterol deposition
- Inhibit macrophages apoptosis.

B. Punarnava :

Common name: Punarnava
 Scientific name: Boerhavia diffusa
 Clade :Tracheophytes
 Clade: Angiosperms
 Clade: Eudicots
 Kingdom: Plantae
 Division: Magnoliophyta
 Class: Magnoliopsida
 Order: Caryophyllales
 Family: Nyctaginaceae
 Genus: Boerhavia
 Species: B.diffusa



Fig 2

In Ayurveda punarnava has major health benefits. It including management of diabetes. the extracts of its leaves control the glucose levels and enhances levels of plasma insulin, which are essential for diabetes. The herb also helps control obesity. a major risk factor for diabetes. It regulate the blood sugar level of the body. The production of insulin from the B pancreatic cells becomes active while taking this herb. It considered as a rejuvenator. It helps to reduce breakdown of starch into glucose which in turn prevents the spike in blood sugar.

➤ *It has following properties:*

- Anti-diabetic
- Anti oxidant

- Immunomodulator
- Rejuvenator

C. *Karela:*

Common name: Karela
 Scientific name: Momordica charantia
 Clade: Tracheophytes
 Clade: Angiosperms
 Clade: eudicots
 Clade: Plantae
 Division: Magnoliopsida
 Class: Magnoliopsida
 Order : Cucurbitales
 Family : Cucurbitaceae
 Genus: Momordica
 Species M.charantia



Fig 3

Karela has been used in Asian and African herbal medicine. The karela has been used in traditional medicine of India. There are different parts of plant are used for treatment of diabetes. It is also used for treatment on skin disease, wounds, fever, cancer prevention. It is beneficial in karela increases cellular uptake of glucose. It improves the glycemic control.

➤ *It has following properties:*

- It is diabetes management.
- Regulate blood flow
- Hair health
- Anti - cancer
- Anti- ageing
- Skin infection

D. *Jamun:*

Common name : Jamun
 Scientific name: Syzygium cumini
 Clade: Tracheophytes
 Clade: Angiosperms
 Clade: Rosids
 Kingdom: Plantae
 Division: Magnoliophyta
 Class: Magnoliopsida
 Order: Myrtales
 Family: Myrtaceae
 Genus: Syzygium
 Species: S.cumini



Fig 4

Jamun is a highly effective fruit .The jamun has been used on treatment of diabetes . The seed of the fruit have various active compound. It is used to slow down the rate of sugar released into the blood and increase the insulin level in the body . It has reduced the symptoms of diabetes like frequent urination & thirsting .It is a sugar lowering agent . It helps for the management of diabetes. It is described in Ayurveda for its benefit's in diabetes.

➤ *It has following properties:*

- Anti - diabetic agent
- Anti - hyperglycemic agent
- Hepatoprotective
- Prevent liver damage

E. Bael:

Common name: Bael
 Scientific name: *Aegle marmelos*
 Clade: Rosids
 Clade: Angiosperms
 Clade: Tracheophytes
 Kingdom: Plantae
 Division: Magnoliophyta
 Class: Magnoliopsida
 Order: Sapinales
 Family: Rutaceae
 Genus: *Aegle*
 Species: *A.marmelos*



Fig 5

Bael leaf is used to the treatment on diabetes .It helps lowering blood glucose level. Bael leaf poses antihyperglycemic activity. It has helps in lowering blood glucose level in streptozotocin induced in the diabetic rats (STZ- S). It poses a Antidiabetic activity, Antioxidant activity, Anti- inflammatory .

➤ *It has following properties:*

- Antidiabetic
- Antioxidant
- Antipyretic
- Hepatoprotective effect
- Anti- bacterial activity

F. Neem:

Common name: Neem
 Scientific name: Azadirachta
 Clade: Eudicots
 Clade: Rosids
 Clade: Tracheophytes
 Kingdom: Plantae
 Division: Magnoliophyta
 Class: Magnoliopsida
 Order: Spindales
 Genus: Azadirachta
 Species: A.indica



Fig 6

Neem is commonly known as Azadirachta indica. It is the most important medicinal part of Ayurveda. Neem contain the antibacterial property. It help manage blood sugar level. It has regulate their blood sugar level .The bark seeds and leaves are used to make medicines .Neem is not Only used in diabetes but also cure the asthma & alcer

➤ *It has following properties:*

- Antidiabetic
- Antibacterial
- Antioxidant
- Antiinflammatory
- control diabetes
- Helps the cure leprosy.

G. Aloe Vera:

Common name: Aloe vera
 Scientific name: Aloe barbadensis Miller
 Clade: Tracheophytes
 Clade: Angiosperms
 Clade: Monocots
 Kingdom: Plantae
 Division: Magnoliophyta
 Class: Liliposida
 Order: Asparagales
 Family: Asphodelaceae
 Genus: Aloe
 Species - A.vera



Fig 7

Aloe Vera is commonly known as *Aloe barbadensis* Miller. It stimulates the secretion of insulin. Aloe Vera is useful for the people who are suffering from diabetes. It maintains the blood sugar level. Generally Aloe Vera is used as a preventive, such as Aloe Vera powder, soluble in water which acts as a preservative.

➤ *It has following properties:*

- Antidiabetic
- Antioxidant
- Antibiotic
- Preservative agent

❖ *Material used as:*

- sea buckthorn juice
- Karela extract
- Jamun extract
- Punarnava extract
- Bael extract
- Neem extract
- Aloe Vera powder
- Distilled water
- Beakers
- Measuring cylinder
- Weighing balance
- Stirrer

III. EXPERIMENTAL METHODOLOGY

- Clean all the apparatus and glasswares.
- Take a beaker.
- Weigh accurate 70 ml of sea buckthorn juice & add into the beaker.
- Measure the accurately 5% of Punarnava extract and add into above juice.
- Weigh accurate 5% of Karela and Jamun extract then add into above beaker.
- Also measure the 5% of Bael extract and 3% Neem extract respectively.

- Then add into above juice.
- Now mix the above mixture uniformly.
- Add 2 gm of Aloe Vera powder used as preservative and mix it.
- Make up the volume with distilled water.
- Transfer into the suitable container and store in a cool and dark place.

IV. RESULT /DISCUSSION

With the help of present study formulation of herbal sea buckthorn diabo juice is prepared for the treatment of diabetes. Diabetes is a major health problem in today's era. This herbal formulation does not show any side effect. It is very effective against diabetes.

V. CONCLUSION

This medicinal juice has antidiabetic property hence this herbal product stimulates the B - pancreatic cells hence results in the production of insulin in the body helps to maintain the blood sugar level. The herbal product of sea buckthorn diabo juice does not have any side effect.

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