

AN ERRATUM

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1. INTRODUCTION.

Perhaps every Homoeopath must have glimpsed through the book “Drugs of Hindoosthan with their Homoeopathic uses, proving and clinical verifications” Written by Dr. Sarat Chandra Gosh. Of course, there we find a very good drug for ‘Diabetes’ which is called ‘Syzygium jambolanum’ or Eugenia jambola’. To his opinion the entire drug pathogenesis of that particular drug has been studied by Ayurvedic physicians and scientists of other disciplines. In Homoeopathy the drug has been tried clinically by few Homoeopathic physicians, but no drug proving has been conducted to elicit the drug properties on healthy human being. If some one goes through the literature of all the species under ‘syzygium’ group, he finds only one species i.e., ‘Syzygium cumini’ which is synonymous to ‘Eugenia jambola’ (an old term), has antidiabetic property and there is no species as Syzygium Jambolanum. Naturally it hits upon the ingenuity of mind as to what is the mystery behind this nomenclature. There are number of species under ‘syzygium’ but only two species have resemblance to the nomenclature used by our author Dr. S.C. Ghosh. One is ‘syzygium cumini’ or Eugenia jambola and another is ‘Syzygium jambos’ which is synonymous to ‘Eugenia jambos’ (an old term). Now let us discuss the properties of both the species so as to arrive at a conclusion.

2. LITERATURE REVIEW.

A. Syzygium cumini or Eugenia jambola.

Name in different languages -

- Sans. - Nilaprala, Raj Prala, Jambu, Jambula, Meghavarna.
- English - Jambul, Black Plum, Black berry.
- Hindi - Jaman, Jam, Phalinda, Jamniphalam pharanda, paiman.
- Bom. - Jambu, Jambual, Jamburs, Jambud.
- Beng. - Jam, Kalajam.
- Guj. - Jam, Jambu, Jamal.
- Tel. - Neereedu, Nairuri, Padda. Necedi, Racha, Neredu. Nareyr. Nasodu.

Talm. - Naredam, Naval sumbal.
Mal. - Naval .
Oriya - Jamu
Punjabi - Jammu
Nepal - Kalajam
Lepcha - Phoberkung
Andamans - Thabya, Jaman (i)

Habitat:

Throughout the Plains From Himalaya to South India and upto an altitude of 1800 mm., it grows widely in different locality, but is generally founds along streams and damp places and shamps where it is often gregarious. The natural Production is from self sown seeds which germinate in the rainy season after disposed by birds.

Description of the plant:

It is large evergreen tree. The size of the tree is about 30 m. in height and 3-6 m. in girth. Bark is brown or greyish, fairly smooth upto 2-5 mm thick with shallow depressions, exfoliating in woody scales.

Leaves : Lanceolate, elliptic oblong or broadly ovate elliptic 7.5-15 cm.x 3.8- 6.3 cm. coriaceous gland dotted.

Flowers : Smooth and shiny flowers greenish white, fragrant, richotomous.

Fruit : Ellipsoid or oblong upto 2-5 cm. long, black with pinkish juicy pulp.

Seeds : Single shaped like the fruit, 1-2 cm. long or 2-5 seeds compressed together into a mass resembling a single seed. The whole is enclosed in a coriaceous covering.

Composition : Fruits : Edible parts (It forms 75 percent of whole fruits.)

Moisture-	83.7
Protein-	0.7
Fat-	0-3
Crude fibre-	0.9
Other Carbohydrates.	14
Ash-	0.4

Mineral constituents (mg. per 100 gms. of edible parts)

Ca.	15
Mg.	35
Fe.	1.2
Na.	26.2
K.	55
Cu.	0-23
S.	13
Cl.	8

Vitamins :

Vit. A	80 Mg.
Thiamine	03 mg.
Vit, C	18 mg.
Choline	7 mg.
Folic Acid.	3 mg.

Glucose and fructose are the principal Sugars in the ripe fruits. Malic acid is a major acid ; a small quantity of oxalic acid is reported to be present. Gallic acid and tannins account for the astringency of the fruit. The purple colour of the fruits is due to the presence of one or perhaps two cyanidin diglycosides. contains petundin and malvidin ; suggar part is mainly glucose, galactose but there is no pentose or raffinose. The waxy component of the fleshy pericap contains a sterol (mp 135') and a small quantity of essential oil. The major component appears to be triterpena- hydroxy acid Oleanolic acid (C₃₀ H₄₈O₃, mp 298-300') which is toxic to fish (3).

Flowers :

Oleanolic acid.

Three triterponcide are reported to be present in the flowers.

The flowers also contains ellagic acid.

- 0-01%. -Flavonoids.
- Isoquercitrin.
- Quercetin.

-Kalamp ferol.

-Myricetin.

Seeds:

Crude protein-	8.5
Ether extr.-	f.18
Crude fibre-	16.9
Ash.	21.72
Ca.	8.41
P.O	17.1

Seeds contain-

Tannin

Ellagic acid

Gallic acid

A glycoside (Jamboline)

Starch and a small quantity of a pale yellow essential oil (sp. gr. 20', 0.926 (D) 542')

Myricylalcohol is present in unsaponifiable fraction (5)

Leaves: Winter collection.

Crude protein-	9.1.
Ether Ext.	4.3
Ash	6
Ca.	1.3
P,O	19
Tannine	6.6vl.

Steam distillation of leaves gives an essential oil. The yield and physical characteristics of the oil vary according to the season of collection.

Yield- 0.0.16 - 0.0185%

Characteristics- Sp. Gr. 0-8943.8986n 20' 1.4943 to 1.4999 (α)

D- 13.2" to 20.9' (in CH Cl₃)

Acid val. - 1.05 to 1.43

Ester val.- 25.34 to 35.47.

Ester val.- after acetylation- 66.89-93.1

Solubility - 1 vol. in 5 vol. of 90% alcohol.

The Oil contains- Terpenes

lilimonena

Olipentene, 20

Sesauiterponcs of

Catileenetype 40'

and sesaquiter pencs of axulens type 10% or less. The Oil tends to polymerize on keeping. (6)

Stem bark :

It contains Butalinic acid (m.p 3' 6 10') B sitosterol fridelin (3(H 50' m.p. 256- 60') and a substance (C₅₈H 106' 82, mp - 169- 72') which is an easter of epifried elonal (C₃₀ H 51) H with a fatty acid (C₂₇ H₅₅ CoOH)

It also contains

- Tannins (10-12%)
- Gallic acid
- Ellagic acid
- Myricetin
- A resin is reported to be present (7)

Uses :

The ripe fruit is widely eaten in India. It is generally sub-acidic and astringent; it is palatable in puddings or when taken with salts. A wine is prepared from ripe fruit in Goa, a spirituous liquor is also prepared from it. Fruits are used for making prepared from pilld fruits but it is astringent (8)

The juice of unripe fruits is used for preparing vinegar. Analysis of vinegar gives follwing values.

Total soild	- 4.12
Ash	- 0-42
Nitrogen	- 0-66
Reducing sugar	- 0-99
Alcohol	- 0-16% by wt.
Iod. val.	- 183.7
Ester val.	- 40.42

The vinegar is considered to be

- Stomachic
- Carminative
- Diuretic (9)

Bark is used in dying and tanning and for colouring fishnet (10).

1. Extracts of the bark, stems, leaves, buds and flowers possoes moderate antibiotic activity against micrococcus Pyogens var aureus.
2. An extract of the leaves show moderate activity against E. coli.
3. The bark is astringent and is used in the preparation of gurgles and mouth washes.
4. A decoction of the bark and also powdered seeds are useful in diarrhoea and dysentery.
5. Extract of the bark and seed and also leaves are used in the treatment of diabetes.
6. The bark extract is reported to have an effect on glycogenolysis and glycogen storage in animal. (11)
7. Aqueous extract of the seeds causes marked and prolong decrease in blood sugar when injected into dogs. Oral administration has no such effects. (12)
8. A flowers of blood sugar has been reported in alloxan diabetes in rabbits.
9. Experiments carried out at the central Drug Research Institute, Luckhnow show that oral administration of dried alcoholic extracts of the seeds to dia betic patients reduces the level of blood sugar and glycosuria; fresh seeds are superior to dried ones in this respect.
10. The fruits have also been used in the treatment of diabetes.

11. Extract of bark are toxic to *piricularia oryzae* car and *physaloepora tucummanansis* spog.
(13)

B) Syzygium jambos or Eugenia Jambos.

Names in different languages :

San.	- Jambu,
H. and Bo.	- Golabgaman,
B.	- Gulabjamb
Tam	- Perunava
Tel.	- Jambuneredu
Mal.	- Jambaran.

Properties :

Bark- Astria.

Leaves- Boild and used for sore eyes.

Fruits- Used in liver complaints.

Leaves and barks contain alk. jambosine. (14)

The leaves on steam distillation yield a yellow essential oil with a characteristic aroma (yield-0.18%).
The oil has following characteristics.

Sp. gr. – 27^0

27^0 , 0.8818 nD. 310

1.4826. (α) D^{270} , - 18.7.

Acid val. - 0.47

sap val. - 8.80

sap val. after acetylation 55.2.

It contains ocimene 4.7, di-1 pinene. 26.84, deophene, 7.35, L.-Limonene. 23.84, d camphor, 5.48, cadinene 7.99, Cuminyl alcohol, 2.01, Geranyl acetate, 3.13, d- leorncol, 4.6, L-Terpineol, 7.16%. The oil is a good source of dl- 1 pience and L. Limonene Rao and Nigam, perfum, essent, oil Rec. 1069, 60, 282 (17).

Conclusion.

From above study it is envisaged that 'Syzygium jambos' has antidiabetic effects. so the drug described in the book 'Drugs of Hindoosthan' with their Homoeopathic uses,provings and clinical verifications' is nothing but 'Syzygium cumini' or'Eugenia jambola' He has used a protion from old nomenclature aprotion from new nomenclature which will be perhaps wrong. Hence it must be called 'Syzygium cuminum' or 'Eugenia jambolanum'

This is because after few years when our posterity will be acquainted with new names, they will be put to difficulty to analyse the things as we are able to do now, because these old literatures may be far reaching for them. This might be creating problems to Homoeopathic Pharmacies to identy particular species.

Again, some of the drugs have been named according to there botanical names and some drugs have been named according to their synonyms. From this, It seems as no rule has been observed during nomenclature of drugs, So steps should be taken by " Homoeopathic Pharmacopeia Committee of India" to standardize the names of the drugs.

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