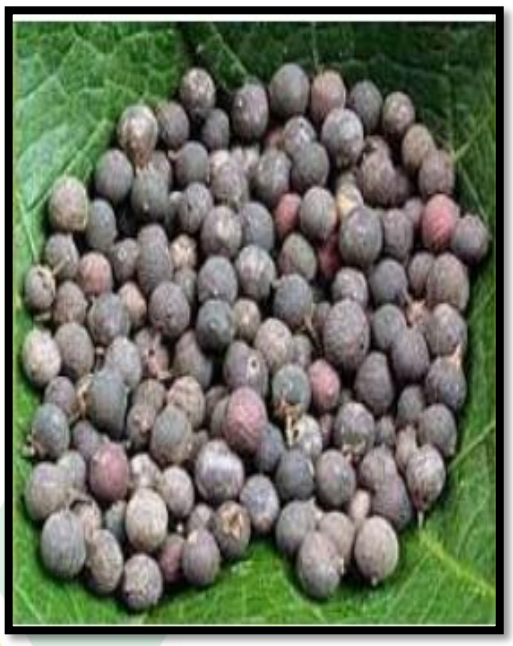
Embelia ribes

TAXONOMICAL CLASSIFICATION:[1]



- Kingdom : Plantae
- Phylum : Angiosperms
- Order : Ericales
- Family : Myrsinaceae
- Genus : Embelia

INTRODUCTION:[1,2,3]

Embelia ribes Burm. f., A straggling, large scandent shrub having long branches, with slender, flexible, terete and long internodes, the plant is almost a climber . The bark of the species is studded with lenticels. Having whitish gray, studded with lenticels stem ,with a mature girth of 45-72 cm. Leaves are elliptic, coriaceous. 6-14cm. long and 2-4cm broad lancelate , alternating, acuminate entire, perfectly glabours and petiole 1.0 cm -0.8 cm margined. Flowers are small, greenishyellow, numerous in lax panicled racemes. Flowering time is February. Fruits are berry, globular and 2.4-4.0 mm in diameter with warty surface, smooth, succulent. The colour of fruit is dull black and rarely dull red like peppercorn when dried. The roots are brownishgray, with hairy reddish rootlets. Embelia ribes Burm.f. is a red listed climbing shurb found in the hilly parts of India from the central and lower Himalayas down. It is commonly seen in places up to the height of 1500 m. It is,also found in Sri Lanka, Singapore, South China and Malayan archipelago. in India It is distributed in moist deciduous forests of the Western Ghats of South India, Jammu & Kashmir, Arunachal Pradesh, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh, Assam and Maharashtra. It is available throughout India up to an altitude of 5000 feet. Seeds of Embelia ribes contain embelin 2.5–3.1%; quercitol 1.0%; fatty ingredients 5.3% and alkaloid schristembine, a resinoid, tannins and minute quantity of volatile oils.

PROPERTIES AND USES

- Analgesic activity
- Anthelminthic activity
- Anti-bacterial activity
- Antioxidant property
- Anti - diabetic activity
- Anticonvulsant activity
- Anti-cancer activity
- Antihyperlipidemic activity
- Antifungal activity
- Antihyperhomocysteinemic activity
- Mollusicidal activity
- Wound healing property
- Antifertility activity
- Antihyperglycemic activity
- Antinematodal activity
- Antiproliferative activit
- Antispermatogenic activity
- Antiumor
- anti-inflammatory activities
- Chemotherapeutic activity
- Contraceptive activity

- Inhibitory activity
- Anxiolytic activity
- Cardio protective effect
- Antiobesity activity
- Hepatoprotective activity

SIDE EFFECTS OF EXCESS CONSUMPTION:[7]

- People dealing with infertility or trying to conceive should refrain from using this herb because of its contraceptive effects.
- Pregnant women should consult a doctor before consuming this herb in any form.
- Due to its high pitta, it may cause hyperacidity, excessive heat, diarrhoea, loose stools, anger, etc.
- May reduce testosterone levels in men.

DOSAGE: [6]

Powder – 3-5 gms

Decoction – 3-15 ml

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RESEARCH:

1. Overweight and obesity are the most common nutritional disorder in Western countries. The objective of this study was to evaluate anti-obesity potential of standardized *Embelia ribes* ethanol extract (ERE) in murine model of high fat diet (HFD)-induced obesity. ERE was standardized by high performance thin layer chromatography (HPTLC) and high performance liquid chromatography (HPLC). Male Wistar rats were fed HFD for 28 days to induce obesity. ERE (100 mg/kg) administered orally to HFD fed rats for 21 days. Changes in body weight gain, body mass index (BMI), blood pressure, serum parameters, and myocardial oxidative stress parameters were measured. ERE showed a preventive effect on body weight gain, visceral fat accumulation and elevated blood pressure. The extract treatment elicited a significant reduction in serum levels

of leptin by 45%, insulin by 37%, glucose by 28%, total cholesterol by 18%, and triglycerides by 24% while HDL-C level increased by 31%. Furthermore, ERE treatment decreased the myocardial lipid peroxidation and increased antioxidant levels in obese rats. These findings demonstrated the anti-obesity potential of ERE, possibly through suppression of body weight gain, lipid lowering action, improvement in insulin and leptin sensitivity and increased antioxidant defense. [8]

2. The present study reports an eco-friendly, cost-effective, rapid and easy method for the synthesis of gold and silver nanoparticles using the seed extract of *Embelia ribes* (SEEr) as capping and reducing agent. The synthesised GNPs and SNPs were characterised using the following techniques: UV–vis spectroscopy, DLS, HR-TEM, FT-IR and XRD. The free radical scavenging potential of GNPs and SNPs was measured by DPPH assay and Phosphomolybdenum assay. Further, the antimicrobial activity against two micro-organisms were tested using disc diffusion method and cytotoxicity of GNPs and SNPs was determined against MCF-7 cell lines at different concentrations by MTT assay. Both the GNPs and SNPs prepared from *E. ribes* comparatively showed promising results thereby proving their clinical importance. [9]
3. This investigation is an attempt has been taken to explore the in vitro antiacne activity of methanolic extract of dried fruit of Embelia ribes. The minimum inhibitory concentration value of the Embelia ribesfruits extract against test S.epidermidis, Propionibacteriumacne and Malasseziafurfurwas found to be 500 µg/ml ,600µg/ml and 400µg/ml respectively. It clearly indicated that methanolic extract of dried fruit of Embelia ribesis promising anti-acne agentagainst the test microorganisms.[10]
4. Diabetes mellitus has been treated orally with herbal remedies based on folk medicine since ancient times. *Embelia ribes burm* (Myrsinaceae), known commonly as vidanga, was used in Ayurveda for its anthelmintic activity. Ayurveda describes vidanga as pungent, causes increase in digestive fire, and cures flatulence and colic. A single study reported the antihyperglycemic activity of decoction of *E. ribes* in glucose-induced hyperglycemic albino rabbits. In the present study, the lipid-lowering and antioxidant potential of ethanolic extract of *E. ribes burm* was investigated in streptozotocin (40 mg/kg, IV, single injection)-induced diabetes in rats. Twenty days of orally feeding the extract (200 mg/kg) to diabetic rats resulted in significant ($P < 0.01$) decrease in blood glucose, serum total cholesterol, and triglycerides, and increase in HDLcholesterol levels when compared to pathogenic diabetic rats. Further, the extract also lowered the liver and pancreas thiobarbituric acid–reactive substances (TBARSs) values ($P < 0.01$) when compared to TBARS values of liver and pancreas of pathogenic diabetic rats. The results of

test drug were comparable to gliclazide (25 mg/kg, orally), a standard antihyperglycemic agent. This is the first pilot study to provide biochemical evidence of potential of *E. ribes* in diabetic dyslipidemia. [11]

PRECAUTIONS & WARNINGS: [6]

- Avoid the use of Vidanga if you have low sperm count because it might impair the spermatogenesis process.
- Vidanga should be avoided if you have acidity or any gastric problems due to its Ushna virya (hot potency).
- Avoid taking Vidanga during breastfeeding.
- Avoid taking Vidanga during pregnancy.
- Use Vidanga seeds paste or powder by adding coconut oil or rose water if you have a hypersensitive skin.

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