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Evidence based assessment of Wild Himalayan Berry (*Myrica esculenta Buch*) in the management of Polycystic Ovarian Syndrome

Myrica esculenta Buch.-Ham ex D. Don (Myricaceae), commonly known as Wild Bayberry is locally more popular as Kaphal. It is a sub-temperate evergreen tree distributed in the mid-Himalayan regions between 1300 meters and 2100 meters spanning from Pakistan, India, Nepal and China. Traditionally the fruit is relished by local communities and is also made into pickles and drinks. It is highly valued for its medicinal uses. Its bark, flowers, fruits and leaves are used in Ayurvedic and Unani systems of medicine against various ailments like menorrhagia, asthma, anaemia, tumors, bronchitis, menstrual disorders etc. Myrica esculenta is reported for its hepatoprotective, antibacterial, antifungal, anti-helminthic and anti-inflammatory activities. It is an important ingredient of Ayurvedic formulations like Chawyanprash, Katphaladi churna, Khadiradi gutika and Pushyanuga churna etc.

The plant is reported to be rich in various bioactive phytochemicals like gallic acid, ellagic acid, catechin, myricetin, stigmasterol, beta sitosterol, lupeol, quercetin etc. The fruit is also rich in amino acids, ascorbic acid, caffeic acid, trans-cinnamic acid etc. Current study evaluates the potential use of this wild Himalayan berry in the management of Polycystic Ovarian Syndrome (PCOS). PCOS is a reproductive disorder with multiple etiological factors severely affecting the fertility of the woman. PCOS also leads to obesity and diabetes. The current work envisages the use of this berry as a nutraceutical supplement during the therapeutic treatment of PCOS. This work evaluates the quality parameters of the Himalayan berry using phytochemical fingerprints developed using HPTLC. The quantitation of bioactive marker; gallic acid has been achieved with a validated HPTLC technique. The paper reports experimental evidence in support of efficacy of the berry in mitigating symptoms associated with PCOS using the rat model. The bioavailability of bioactives from the berry is also demonstrated using pharmacokinetic studies in rats.

Speaker Biography

Sunita Shailajan (Ramnarain Ruia Autonomous College, Mumbai, India, currently working as a principal investigator in DST - SERB project, Govt. of India) Area of specialization: Quality evaluation of traditional formulations using HPTLC and HPLC techniques, pharmacological (toxicity and efficacy), and pharmacokinetics. Patents-02 Member HPTLC association (HPTLC ASSOCIATION International Association for the Advancement of High-Performance Thin Layer Chromatography), Switzerland.

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