

Borthekera

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In news— *Garcinia pedunculata*, a medicinal plant commonly called Borthekera in Assamese language, found to have cardioprotective potential.

About Borthekera-

- Bor Thekera is an evergreen tree related to the more familiar purple mangosteen (*Garcinia mangostana*).
- The tree is endemic to the south-eastern regions of Asia such as parts of Myanmar and north-eastern parts of India.
- Traditionally forbidden for raw consumption, it has been found to protect from heart diseases.
- **Administration of the dried pulp of the ripe fruit of the medicinal plant reduced cardiac hypertrophy indicators and oxidative stress** and heart inflammation brought on by ISO.
- The **sun-dried slices of the ripe fruit are used for culinary and medicinal purposes** and are known to have **therapeutic properties like anti-inflammatory, anthelmintic, antibacterial, antifungal, antidiabetic, hypolipidemic, nephroprotective, and even neuroprotective activity.**
- With scientific interventions seeking proof of these claims, multiple studies have been reported that ***G. pedunculata* is a rich source of antioxidants.**
- However, the cardioprotective potential has yet to be explored earlier.
- Scientists of Institute of Advanced Study in Science and Technology (IASST), an autonomous institute of the Department of Science and Technology (DST), explored this medicinal plant's potential to prevent heart diseases.
- Scientists have attributed these improvements to the

excellent antioxidant and anti-inflammatory potential of GC that helped protect the heart against isoproterenol-induced injury.

- Moreover, the **chemical characterization of the chloroform fraction revealed the presence of active phytochemicals like hydroxycitric acid, hydroxycitric acid lactone**, and parvifoliquinone along with compounds like GB-1a, Garcinone A, 9-Hydroxycalabaxanthone, Chlorogenic acid, and Garcinol as well.
- The therapeutic effects reported in this study are likely due to the presence of all these compounds.
- All these results strongly infer the good cardioprotective potential of *G. pedunculata* fruit abundantly available in Northeast India.