Red Ivy Plant-Based Wound-Healing Pad

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Why in news?

Researchers at the Jawaharlal Nehru Tropical Botanic Garden & Research Institute (JNTBGRI), Palode, Kerala have tapped into the wound-healing properties of the red ivy plant.

- The red ivy plant used to develop an innovative, multifunctional and multilayered ***wound-healing pad using nanomaterials*** like electro-spun.
- **Developed by -** A team of scientists at the ***Centre of Excellence in Phytochemical Nanotechnology*** of the JNTBGRI, Kerala
- **Acteoside -** The product is developed by identifying and isolating a new molecule, acteoside.

  Acteoside is a natural compound found in many plants and its pharmacological activities and therapeutic potential is well-known.

- However, this is the first time acteoside has been linked to the red ivy plant.
- The acteoside derived from red ivy plant has ***high efficacy even at lower concentrations of 0.2%.***
- Along with acteoside, various polymers and antibiotics are also used for manufacturing this wound healing pad.
- **Features of the pad -**
  - It is made from ***biodegradable and non-toxic polymers*** and is incredibly thin.
  - The nanofibre layer facilitates ***optimal gas exchange***, allowing the wound to ”breathe.”
  - It also incorporates a ***super absorbent sponge*** crafted from sodium alginate, along with an activated carbon layer.

- **Aligning with ISO standards** - The biomaterials used for the pad have been tested and found to be conforming to the ISO standards - ***Biological Evaluation of Medical Devices standard.***
- **No risk factor** - Tests confirmed that the components of the pad, ***do not pose risks*** such as genotoxicity, hypersensitivity, skin irritation or inflammation.
- **Availability** - At present it is ***not available in India.***

Quick facts

Strobilanthes alternata
• It is known as ***red ivy, red-flame ivy, or waffle plant*** and known locally as ***"murikooti pacha".*** • It is a prostrate plant with purple-colored leaves. • It is identified of having wound-healing properties. • **Family -** Acanthaceae, which is native to Java. • **Habitat -** ***Native to the tropical regions*** of the world. • **Distribution -** Grows in plenty across *India, China, Indonesia, and Japan.* • The traditional practitioners have long been using it to treat cuts and wounds.

Reference

The Hindu | The wound-healing property of red ivy plant

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