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Efficient *in vitro* micropropagation of *Gynura procumbens* - an important rare medicinal plant, through shoot tip and nodal segment explants

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ABSTRACT:

Gynura procumbens is a medicinally important herbaceous plant species belonging to the family Asteraceae. It works against virus, inflammation and various types of allergies. It is used to treat rheumatic fever, migraine, kidney disease, diabetes, dysentery, various types of skin diseases and cancers. This study aimed to develop a suitable protocol for rapid production of *Gynura procumbens* from different explants. Shoot tip and nodal segment explants were used from one year mature plant. For shoot proliferation, among the two explants, shoot tips showed the best response (90%) on Murashige and Skoog (MS) medium supplemented with 1.0mg/l BAP and produced an average of 20±0.8 shootlets in each explants. *In vitro* derived shoots were subcultured on the similar medium and it gave similar production with healthy shoots. 100% rooting was observed on full strength MS medium containing NAA (0.5mg/l). Rooted plantlets were transferred for hardening into the mixture of soil, cowdung and sand (1:1:1). Then the rooted plantlets were successfully established in the field.

Keywords:
Gynura procumbens, *In vitro*, Micropropagation, Cytokinin, Auxin.

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