

Pratinidhi dravya (Alternate medicinal resources): An exigency for a sustainable resource of raw herbal drugs

योज्यमेकतराभावे परं वैद्येन जानता। रसवीर्यविपाकाद्यैः समं द्रव्यं विचिन्त्य च ॥
व्याधेरयुक्तं यद्द्रव्यं गणोक्तमपि तत्तज्जेत्। अनुक्तमपि युक्तं यद्योजयेत्तद्रसादिवित ॥
(भावप्रकाश-पूर्वखण्ड 1/176-178)



Worldwide recent demand of nature-based traditional medicines/remedies is maliciously liable for making the scarcity of natural medicinal plants/raw herbal materials. This is one of the major challenges being faced by the Ayurvedic pharmaceutical industries. The medieval scholars of Ayurveda might have rightly presumed this dilemma and provided their rationale view under the ambit of *Abhava /Pratinidhi dravya* (alternate sources). The stunning deliberation of *Pratinidhi darvya* was firstly explicated by Acharya Vagabhata. Detailed portrayals about *Pratinidhi Dravya* are found to be materialized from the medieval transcripts such as *Bhavaprakasha*, *Yogaratanakara*, *Bhaishajya Ratnavali*, etc.

Acharyas have explained while designing multi-ingredient formulations if a particular ingredient is not available, the Vaidya should try to obtain another ingredient having similar effectiveness in terms of *Rasa*, *Guna*, *Veerya*, and *Vipaka* (similarity in basic pharmacological properties). Along with this, a Vaidya can substitute a particular ingredient used in a multidrug combination/formulation based on the logical assessment of *Rogi/Atur* (patients), *Kala* (seasonal variation) and *Rogavastha* (stage/condition of disease). Along with above, there are several other factors which need to be considered during the implication of alternate ingredient as—the proper identification/authentication of the drug, geographical distribution and seasonal availability. There should not be any ambiguity in sustainable resource/supply and cost-effectiveness of the drug to be used as substitute/alternate ingredient.

With due consideration of all the pharmacological and pharmacognostical tenets, a drug may be substituted with another drug having the similar properties or part [For example, *Musta* (*Cyperus rotundus* L., Cyperaceae family) can be used as a substitute for the specific desired pharmacological action in place of *Ativisha* (*Aconitum heterophyllum* Wall. ex Royle, Ranunculaceae family) when it is unavailable], part of same plant may be substituted with easily available another part (For example, root of ingredients of *Dashamoola* can be substituted with stem, bark of the respective plants). As the use of root or whole plant leads to destruction of the plant species therefore rather exploitation of the whole plant, available replenishable part of the particular plant like leaves, branches, bark, flower or fruits should be considered for needful substitution based on logical assessment. Frequent use of a particular plant may be rationally substituted with its regional alternate source [For example, *Bala* (*Sida cordifolia* L., family–Malvaceae) is currently facing scarcity in the market while its regional species like *Sida acuta* Burm.f. is abundantly available, thus *Sida acuta* Burm.f. may be taken for rationale substitution for *Sida cordifolia* L.]

The Central Council for Research in Ayurvedic Sciences (CCRAS) has undertaken several core initiatives from evidence-based research to conservation/cultivation of medicinal plant species. Comparative studies of different useful parts of same species as well as other different species for rationale substitution have been undertaken. Along with this, the Council is also dedicatedly working on conservation and cultivation of medicinal plant species/flora by adopting new agro-technique "*Aushadharanyam*".

Considering the importance of this issue, it is invoked that efforts may be made across various stakeholders for the growth of sustainable natural resources.

Prof. Vaidya Kartar Singh Dhiman

Editor-in-Chief

Journal of Drug Research in Ayurvedic Sciences

Director General

Central Council for Research in Ayurvedic Sciences

Ministry of AYUSH, Government of India, New Delhi, India