

DARUHARIDRA : A PHARMACOGNOSTICAL STUDY

PRABHU NAUTIYAL

Doctor of Medicine (Ayu.),

Department Of *DRAVYAGUNA* Uttranchal Ayurvedic College, Rajpur, Dehradun

INTRODUCTION

Ayurveda, the Indian system of medicine, emphasis the promotion and prevention of health along with the modes operandi to lead a disease free life. This ancient healing methodology is highly scientific, systematic and restrains time tested principles. *Ayurveda* proclaims that health is the stabilized and dynamic amalgamation between our body, mind, soul and the environment.

स्वलक्षणतः सुखासुखतो हिताहिततः प्रमाणाप्रमाणतश्च, यतश्चायुष्याप्यनायुष्याणि
च द्रव्यगुणकर्माणि वेदयत्यतोऽप्यायुर्वेदः ।

(च.सू. 30/23)

Dravyaguna is the science of drugs based on their properties and actions. It includes pharmacology, pharmacognosy and therapeutic uses of the drugs. Knowledge of drugs or *aushadhajnana* forms one of the triad among the 'trisutra' of *Ayurveda*¹. Even though *Ayurveda* remedies are represented by its vast pharmacopeia of herbs, minerals and products of animal origin, it derives preparations mainly from plant sources.

Daruharidra is one among the vital drugs depicted in *Ayurveda* and the description is available from *Samhita kala* onwards and is widely elaborated in almost all the *Nighantus*. *Ayurveda* classics detailed the therapeutic uses of *daruharidra* in *kamala*, *pandu*, *kushta*, *mutrakricchra*, *pratishyaya*, *netraroga*, *mukharoga*, *pradara*, *sarpavisha*, *upadamsha*, *prameha* etc².

Around 55 species of *Berberis* are identified in India and among those 22 are found in Uttarakhand state.

In *Ayurveda* the *aristata* species of *Berberis* is considered as the official source of *daruharidra*³. Morphologically it is an erect spiny shrub with a height of 2-3 meters. It is a woody plant with yellow to brown colored bark which is covered with three-branched thorns. The leaves are simple and with pinnate venation, deep green color on the dorsal surface and light green in ventral surface and arranged in tufts of five to eight.

Berberis aristata is a red listed endemic medicinal plant species⁴ which is highly important due to its extensive medicinal properties, scarcity and huge demand. So to meet the market demand, raw material providers supply inferior quality samples or mixture of *Berberis* species and many drugs are sold in the market as *Daruharidra* do not often correspond with the established drug.

Screening of the medicinal plants for ensuring its quality is the need of the time. Plant identification is the first step which gives access to entire information regarding the plant to facilitate qualitative estimation by comparison.

Acharya Bhavamisra in *Bhavaprakasha Nighantu* mentioned that whenever the original drug is not available a suitable alternative may be used in its place⁶.

This study is an attempt to assess the genuineness of dry samples by means of *Ayurvedic* evaluation, analysis of chemical constituents and its pharmacognostical study. For this, four *Berberis* wild species, *Cosinium fenestratum* of *Menispermaceae* family collected from its natural habitat, along with one commercial sample purchased from Dehradun drug market will be studied in detail. This study will be useful for the authentication of the commercial sample and will also be helpful in exploring the possibilities of using other species as a substitution of *Berberis aristata*. This attempt may also aid in utilizing the alternate drug sold in the market advantageously instead of neglecting them totally.

REVIEW OF LITERATURE:

Acharya Charaka described *Daruharidra* under:

1. *Arshoghna Mahakashaya* (group of herbs used to treat hemorrhoids).
2. *Kandughna Mahakashaya* (group of herbs used to treat itching related skin disorders).
3. *Lekhniya Mahakashaya* (group of herbs that has scraping properties).

Whereas *Acharya Sushruta* and *Vagbhata* mentioned it under:

1. *Haridradi Gana*
2. *Mustadib Gana*
3. *Lakshadi Gana*

PREVIOUS WORK DONE:

1. Sarvesh Kumar Bharati, Abhishek Kumar, Bhuwal Ram and Anil Kumar Singh; Research Article, World journal of Pharmaceutical and Life Sciences; wjpls, 2016, Vol.2, Issue-4, Pg 419-430
2. Dr. Praveen Kumar A., Analytical Study of *Daruharidra* w.r.t different market samples; Rajiv Gandhi University of Health Science, Bangalore, Karnataka, 2008-2011.

AIMS & OBJECTIVES:

Aim of this study is to identify the different original samples of *Daruharidra* from their authentic sources and to conduct their pharmacognostical study.

Objectives of present study are as follows:

1. To collect and authenticate the four different samples collected from their natural habitat.
2. To review the classical text books of *Ayurveda* and recent literature regarding different species of *Daruharidra*.
3. To carry out the pharmacognostical study of different samples of *Daruharidra*.
4. To carry out comparative phytochemical study of four different species of *Daruharidra*.

MATERIAL & METHODS:

The research work will be done under six main headings-

1. To collect the genuine plant samples of different species of *Daruharidra*.
i. B. aristata
ii. B. asiatica *iii. B. chitria* *iv. B. lyceum*
These all are belonging to Berberidiaceae commonly found at altitude up to 6000ft. *v. Coscinium fenestratum* of *Menispermaceae* family from their natural habitat (kerala). *vi.* One market sample from Dehradun herbal Drug market.
2. Botanical authentication of collected plant sample.
3. Organoleptic study of all the genuine samples.
4. Microscopic study of all genuine samples.
5. Phytochemical study including chromatography etc. of all the collected samples and market samples.

- Literature will be studied from *Brihatrayi*, *Laghutrayi*, all available *Nighantus*, and other classical texts of *Ayurveda*, modern text books, journals, internet and other relevant sources.

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