

ANALYTIC STUDY OF DARUHARIDRA CHURNA: AN AYURVEDIC REVIEW

Kanchan Chauhan^{1*}, Renu Rao², Gunjan Sharma³ and Priyanka Rani⁴

¹P. G. Scholar, PG. Department of Shalakyia Tantra, Rishikul Campus, Uttarakhand Ayurved University, Haridwar, India.

²Associate Professor, PG. Department of Shalakyia Tantra, Rishikul Campus, Uttarakhand Ayurved University, Haridwar, India.

³Professor and HOD, PG. Department of Shalakyia Tantra, Rishikul Campus, Uttarakhand Ayurved University, Haridwar, India.

⁴Assistant Professor, PG. Department of Shalakyia Tantra, Rishikul Campus, Uttarakhand Ayurved University, Haridwar, India.

Article Received on
26 December 2017,

Revised on 16 Jan. 2018,
Accepted on 05 Feb. 2018

DOI: 10.20959/wjpr20184-11078

*Corresponding Author

Dr. Kanchan Chauhan

P. G. Scholar, PG.

Department of Shalakyia

Tantra, Rishikul Campus,

Uttarakhand Ayurved

University, Haridwar, India.

ABSTRACT

The vast field of Ayurvedic science is gaining more importance and popularity across the globe because of its amazing therapeutic values. Herbs play a major role in *Ayurvedic* system. Herbs possess infinite potencies or *Saktis* and work wonders. An *Ayurvedic* herb is a plant source which is used in the preparation of *Ayurvedic* medicine. The plant on the whole with its leaves, flowers, fruits, seeds, roots, roots bark, and resin has medicinal values. Different methods like macroscopic, microscopic and physiochemical techniques were used for the identification and standardization of powdered drug of *Daruharidra* (*Berberis aristata*). This is an effort to prove that the drug (*Daruharidra*) used in the trial (*Darvi Seka*) is original *Berberis*

aristata of which the different Pharmacognostical features were within range when compared with *Ayurvedic* Pharmacopoeia of India.

INTRODUCTION

Berberis aristata commonly known as *Daruhaldi* and *Chitra* is spinous shrub native to northern Himalaya region. The plant is widely distributed from Himalayas to Shrilanka, Bhutan, and hilly areas of Nepal in Himalaya region.^[1] It is used in *Ayurvedic* medicine

system from long times. Fruit of this plant is edible and rich source of vitamin C. The root bark of this herb is rich in berberin and isoquinoline. Both chemical compounds are anti-fungal, anti-bacterial, anti-oxidant, anti-viral, anti-diabetic, anti-inflammatory in nature.^[2] *Daruharidra* has been used in the indigenous system of medicine since a long time. The authentic source of the drug is *Daruharidra* belonging to the family *Berberidaceae*. Pharmacological actions such as *Chaksusya*, *Netrya*, *Netraruja-hara*, *Netrasodhahara*, *Netrakanduhara*, *Vrana-ropana* are attributed to these drugs.^[3,4,5]

External application of *Daruharidra*^[6]: Its paste, made with water is applied externally to relieve pain and inflammation. Its filtered decoction (*kashaya*) is used to wash eyes to relieve pain, swelling and inflammation. Its decoction is used for gargling to relieve improve voice and throat infection. Its paste is applied over non healing wounds, syphilis ulcers, fistula for quick healing. *Daruharidra* is mentioned in *Haritkyadivarga* in *Bhavprakash Nighantu*.^[7]

Table-1.^[8]

Sr. No.	Name	Family	Gana	Rasa	Guna	Vīrya	Vipaka	Karma	Dosha-Shamakta
1.	<i>Berberis aristata</i>	<i>Berberidaceae</i>	<i>Arshoghna, Kandughna, Lekhaniya, By acharya Charaka Haridradi, Mustadi, Lakshadi, By Acharya Susruta & Vagbhata</i>	<i>Tikta, Kashaya,</i>	<i>Laghu, Ruksha</i>	<i>ushana</i>	<i>Katu</i>	<i>Chakshusya, Sothahara</i>	<i>Kapha-Pitta Shamaka, Raktashodhaka</i>

AIMS AND OBJECTIVE

A) To analyze the physical or organoleptic and physiochemical evaluation character of drug.

Collection of Raw Material: The raw material (*Daruharidra*) was procured from the Hansa Pharmacy Premnagar Ashram, Haridwar Uttarakhand.

Physical Characterization Description of Organoleptic study

Organoleptic characteristics for various sensory character like appearance, colour, taste, odor etc. Were carefully noted down (table 2).

Table. 2: Organoleptic Parameters of *Daruharidra*.

Parameters	<i>Daruharidra</i>
Appearance	Powder
Colour	Pale Yellowish-brown
Odor	Characteristic
Taste	Bitter

pH Value: pH was determined by using digital Ph meter and the measurement of pH was 3.2 Daruharidra was further subjected to Thin Layer Chromatography (TLC) study.

TLC Profile

Instrument used was silica plate. The stationary phase used was silica gel G60F254 and mobile phase was toluene: Ethyleacetate:Formic acid (6.5:3:0.5). The plate was visualized under p-Anisaldehyde- Sulphuric acid. Rf value: 0.09, 0.16, 0.36, 0.52, 0.59, 0.73, 0.89.

RESULT AND DISCUSSION

Table. 3: Physiochemical analysis.

Parameters	Daruharidra
Total Ash	11.83%
Acid Insoluble Ash	3.14%
Water Soluble Ash	7.59%
Water Soluble Extract	19.85%
Alcohol Soluble Extract	14.41%
Ether Extractive Value	3.17%
Moisture Content	7.32%

Table. 4: Aflatoxins and microbial limit Test.

Parameteres	Daruharidra
Aflatoxin B1	Not Detected
AflatoxinG1	Not Detected
AflatoxinB2	Not Detected
AflatoxinG2	Not Detected
Microbial Limit Test	
Total Arerobic Microbial Count	$10^{4/g}$
Total Yeast&Mould Count	$10^{2/g}$

Pharmacognostical Analysis Organoleptic evaluation was performed at finished product. Thin Layer Chromatography (TLC) was carried out under 254 and 366 nmUV to established finger printing profile. It showed Rf values 0.09, 0.16, 0.36, 0.52, 0.59, 0.73, 0.89 which may be responsible for expression of its pharmacological and clinical action. The obtained value of were found within normal limit in *Daruharidra*, which indicate good quality of product. Microbials limit test result were found in normal range and test for Aflatoxins was absent.

CONCLUSIONS

Physiochemical analysis are done and compared with API in which all parameters are found to be within range. This paper is an attempt of the author to generate identity, quality evaluation and purity standards for *Barberis aristata* to prevent its adulteration.

REFERENCES

1. (<https://www.mchemist.com/herboglo/pdf/3%20daruharidra.pdf>).
2. (www.planetayurveda.com/library/daruharidra-berberis-aristata).
3. N.Srikanth, The Actions and uses of Indigenous Ophthalmic Drugs, Chokhambha Sanskrit Prathisthan, Delhi, 2000.
4. J.P.N. Chanssuria, Studies on wound healing and effect of indigenous drugs on it., 1975; 198.
5. Dhar, M.L. et al, Screening of plants for biological activity part-1, Indian J. Exptl. Biol., 1968; 6: 232.
6. Prof. K.C Chunekar, reprint edition(2013) Bhavprakash Nighantu of Shri Bhav Mishra, Chaukhamba Bharti Academy, Shloka, 2013; 202: 133.
7. (<https://www.google.co.in/amp/s/easyayurveda.com/2012/08/30/daruharidra-berberis-aristata-qualities-benefits-dose-ayurvedic-details/amp/>).
8. Dravyaguna Hastamlaka by Vaidya Banwari Lal Misra edited by Vaidya Santosh Kumar Sharma Khandal published by Publication Scheme revised 5th edition, 437.