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PHYTOCHEMICAL ATUDY ON *ALAMBUSHADI CHURNA* TABLET

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ABSTRACT

Presently it is being globally accepted that medicinal plants play a major role in providing health benefits to human beings. Maximum Ayurvedic medicines are plant based drugs. The complex composition of medicinal plant based drugs has a major challenge for quality control. Phytochemical study is the most important part for standardization of the medicinal plant base drugs. One important Ayurvedic drug i.e. *Alambushadi Churna* tablet had been selected from Ayurvedic famous book named *Bhava Prakasha* for the Phytochemical study. It is mainly used in the treatment of disease *Amavata* (Rheumatoid arthritis). The Phytochemical study revealed that reducing sugars, tannin, phenolic compounds, flavonoids, saponin glycosides and gum were present into the sample of *Alambushadi Churna* tablet.

KEY WORDS: Phytochemical, *Alambushadi Churna* tablet.

INTRODUCTION

Presently it is being globally accepted that medicinal plants play an important role to provide health benefits to human beings. Recently the increased demand for plant based drugs and their eventual commercialization has given a more concentration on their status. Maximum Ayurvedic medicines are plant based drugs. But global acceptances of Indian plant based drugs are still low and most probably inadequacy of quality control is the most important responsible factor for this. The complex composition of medicinal plant based drugs has a major challenge for quality control. Now a day's Analytical study is the most important way for standardization of the medicinal plant based drugs. It draws also a major attention to the different research scholars for research purpose. Analytical study has two parts those are Physicochemical study and

Phytochemical study. In Ayurvedic texts so many plants based drugs are described in context of treatment purpose of different diseases. One important Ayurvedic drugs i.e. *Alambusadi Churna* tablet had been selected from Ayurvedic book for the Phytochemical study.

Objectives: I) To evaluate the Phytochemical data of the *Alambushadi churna* tablet.

MATERIALS AND METHODS

Alambusadi Churna tablet is mainly used in the treatment of disease *Amavata* (Rheumatoid arthritis). *Amavata* disease is more simulated to Rheumatoid arthritis according to its clinical manifestations and pathogenesis^{1,2}. *Alambusadi churna* is mentioned in *slokas* no. 69 to 70 of 26th chapter of *Bhava Prakasha* (Ayurvedic book)³. *Alambusadi Churna* tablet was prepared in the Pharmacy of Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurvedic University, Jamnagar and Phytochemical study of this drug (i.e. *Alambusadi Churna* tablet) had been done in the Pharmaceutical laboratory of Institute for Post Graduate Teaching and Research in Ayurveda, Gujarat Ayurvedic University, Jamnagar. Reducing sugars, Proteins, Tannin, Phenolic compounds, Flavonoids, Cardiac glycosides, Saponin glycosides, Steroid, Gum, Mucilage, Non-reducing polysaccharides (Starch), Alkaloids of *Alambusadi Churna* tablet had been observed in Phytochemical study⁴. *Alambushadi churna* tablet is a poly herbal Ayurvedic drugs and thirteen Ayurvedic medicinal plants are used in it as ingredients^{5,6}. Name of the ingredients (Ayurvedic name and Scientific or Botanical name), used part of the plant ingredients and quantity of used part of the ingredients into the one tablet are shown in the table-1.

Table-1: Ingredients list of *Alambushadi Churna* tablet

S. No.	Ingredients (Ayurvedic name)	Botanical Name	Used part	Quantity (part)
1.	<i>Alambusha</i>	<i>Sphaeranthus indicus</i> Linn.	Dried mature whole plant	1
2.	<i>Gokshur</i>	<i>Tribulus terrestris</i> Linn.	Dried mature Fruit	1
3.	<i>Guduchi</i>	<i>Tinospora cordifolia</i>	Dried Stem	1
4.	<i>Vridhdadaraka</i>	<i>Argyreia nervosa</i> (Burm.f.) Bojer	Dried Root	1
5.	<i>Pippali</i>	<i>Piper longum</i> Linn.	Dried mature Fruit	1
6.	<i>Trivrit</i>	<i>Operculina terpathum</i> Linn.	Dried Root	1
7.	<i>Mustaka</i>	<i>Cyperus rotundus</i> Linn.	Dried Rhizome	1
8.	<i>Varuna</i>	<i>Crataeva nurvala</i> Buch-Ham.	Dried stem Bark	1
9.	<i>Punarnava</i>	<i>Boerhavia diffusa</i> Linn.	Dried mature whole plant	1
10.	<i>Haritaki</i>	<i>Terminalia chebula</i> Retz.	Dried mature Fruit	1
11.	<i>Amalaki</i>	<i>Emblica officinalis</i> Gaertn.	Dried mature Fruit	1
12.	<i>Vibhitaka</i>	<i>Terminalia bellirica</i> Roxb.	Dried mature Fruit	1
13.	<i>Sunthi</i>	<i>Zingiber officinale</i> Roxb.	Dried Rhizome	1

RESULTS AND DISCUSSION

Results of Phytochemical study of *Alambushadi Churna* tablet is shown in the table-2.

Table-2: Data of Phytochemical parameters (Qualitative tests) of *Alambushadi Churna* tablet

Sl. No.	Components	Tests	Results
1.	Reducing sugars	Fehling's test	Positive
2.	Proteins	Biuret test	Negative
3.	Tannin	With 5% ferric chloride solution	Positive
4.	Phenolic compounds	With Lead acetated solution	Positive
5.	Flavonoids	Shinoda test	Positive
6.	Cardiac glycosides	Keller-Killiani test	Negative
7.	Saponin glycosides	Foam test	Positive
8.	Steroid	Salkowski reaction	Negative
9.	Gum	Hydrolysis test with dilute HCl	Positive
10.	Mucilage	With ruthenium red	Negative
11.	Non-reducing polysaccharides (Starch)	Iodine-test	Negative
12.	Alkaloids	Mayer's test	Negative

The above data (i.e. table-2) of Phytochemical study reveals that Reducing sugars, Tannin, Phenolic compounds, Flavonoids, Saponin glycosides, Gum were present in the sample of *Alambushadi Churna* tablet, but Proteins, Cardiac glycosides, Steroid, Mucilage, Non-reducing polysaccharides (Starch), Alkaloids were not present in the sample of *Alambushadi Churna* tablet.

CONCLUSION

It can be concluded on the basis of this Phytochemical study that reducing sugars, tannin, phenolic compounds, flavonoids, saponin glycosides and gum were present into the sample of *Alambushadi Churna* tablet but more research work is necessary on this subject for more information and more accuracy.

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