



INTERNATIONAL JOURNAL OF PHARMACY AND ANALYTICAL RESEARCH

ISSN:2320-2831

IJPAP | Vol.6 | Issue 4 | Oct – Dec - 2017

Journal Home page: www.ijpar.com

Research article

Open Access

Physiochemical standardization of boswellia serrata: a unique healer

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ABSTRACT

Boswellia Serrata has a wide range of Pharmacological action. It is used both internally as well as externally. In Unani System of Medicine it is commonly used for Diarrhoea, Dysentery, Osteoarthritis, Rheumatic arthritis, chronic inflammatory diseases, wound healing, Bronchial asthma, corneal ulcer and skin diseases. The drug is obtained by giving injury to the trunk of tree. It is then stored and converted into different grades especially on the basis of colour, shape size and flavor. From ancient times, apart from medicinal uses it has been used as incense in religious and cultural ceremonies.

Methods

Boswellia Serrata has been evaluated by using physiochemical tests. The methodology was followed according to protocol of ASU drugs.

Results

Physiochemical results revealed that *Boswellia Serrata* powder is slightly yellowish brown in colour, characteristic odour and bitter in taste and have moderately fine texture and all the physiochemical standards were set.

Conclusion

Standardization of herbal drugs is very important for quality control. it improves the efficacy and safety of drug. Physiochemical results of *Boswellia serrata* will serve as a reference standard for identification in future and intern will prevent the adulteration and improve the quality, identity and purity of drug.

Keywords: *Boswellia Serrata*, Physiochemical, Kundur, Unani Medicine

INTRODUCTION

Boswellia Serrata (oleo-Gum-Resin) is used in Unani System of Medicine since ancient times for various therapeutical purposes. It is actually an exudate oozes out from injured trunk or from natural cracks in the bark. Various researches revealed that it is beneficial in various diseases like

Bronchial asthma, Colitis, Crohn's disease, Polyarthritis etc. [1] *Boswellia Serrata* is a moderate to large sized branching tree. It belongs to family Burseraceae. It is obtained by giving incision to the trunk of tree and is stored in specially made bamboo baskets and then graded according to flavor, shape, size, colour. *Boswellia*

serata tree grows in dry mountainous regions of India, Northern Africa and the Middle East. [2, 3, 4] Non-steroidal anti-inflammatory drug (NSAID) intake is associated with high prevalence of gastrointestinal or cardiovascular adverse effects. Animal studies and pilot clinical trials support the potential of *Boswellia serrata* gum resin extract for the treatment of a variety of inflammatory diseases like inflammatory bowel disease, rheumatoid arthritis, osteoarthritis and asthma. However in 2002 the European Medicines Agency classified *Boswellia Serrata* Extract as an 'orphan drug' for the treatment of peritumoral brain oedema. [5] In Unani system of medicine it is commonly known as Kundur. [6]

MATERIALS AND METHODS

Procurement of Drug

The drug was procured from the registered crude drug dealer from market. The drug was properly identified by experts.

Organoleptic evaluation [7]

The organoleptic evaluation of *Boswellia serrata* was done to rule out the colour, odour, taste etc.

Physiochemical evaluation

The physiochemical evaluation of *Boswellia serrata* was done by testing Loss of drying at 105⁰c, Total ash, Acid insoluble ash, water soluble ash, P.H of 1% and 10% solution. The methodology was followed according to protocol of ASU drugs. [8, 9]

RESULTS

The organoleptic properties of *Boswellia serrata* showed the colour was slightly yellowish brown, characteristic odour, bitter in taste. The physiochemical evaluation is depicted in **Table no. 1**

S.No	Parameters	Results (n=3) ± SD
1	LOD at 105 ⁰ c	5.0 ± 0.30
2	Total ash (%w/w)	5.75 ± 0.04
3	Water soluble ash (%w/w)	1.26 ± 0.24
4	Acid insoluble ash	3.38 ± 0.02
5	P.H (1%)	6.3 ± 0.01
6.	P.H (10%)	6.5±0.01

CONCLUSION

In the present study the *Boswellia serrata* was evaluated physiochemically to set its physiochemical standards. The standards will be used for identification and quality control. For Herbal drugs standardization is an important measure for knowing the quality, identity and purity of drug. Standardization can help to

maximize productivity, compatibility, Safety, repeatability or quality.

Conflict of interest: Nil

Acknowledgement

The authors are highly thankful to Dr Gazi Jahangir and Dr Rafi Khan (P.G Scholars NIUM Bangalore) for their cooperation and helpful discussion.

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