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Physiochemical evaluation of *Boswellia serrata* Roxb.: A medicinal plant

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Abstract

Boswellia serrata has a variety of Pharmacological actions. It is used both internally and externally. In Unani System of Medicine it is commonly used for Diarrhoea, Dysentery, Osteoarthritis, Rheumatic arthritis, chronic inflammatory diseases, wound healing, asthma, cornea ulcer and skin diseases. The drug is obtained by damaging the trunk of the tree. It is then stored and converted into different grades mainly based on colour, shape size and taste. From ancient times, in addition to medicinal uses, it has been used as a incense in religious ceremonies and rituals. *Boswellia serrata* has been evaluated by using physiochemical tests. The methodology was followed according to protocol of ASU drugs. The physiochemical results reveal that *Boswellia serrata* powder has a yellowish-yellow color, unique aroma and spicy taste and has a moderate texture and all physiochemical levels are suspended. The suspension of herbal medicines is very important in quality control. Improves the effectiveness and safety of the drug. The Physiochemical effects of the *Boswellia serrata* will serve as a reference for future diagnostic reference and the student will prevent adultery and improve the quality, ownership and purity of the drug.

Keywords: *Boswellia serrata*, Physiochemical, Medicinal plant

Introduction

Boswellia serrata (oleo-Gum-Resin) has been used in various Systems of Medicine since ancient times for various medicinal purposes. It is actually exudate from the damaged trunk or natural cracks in the bark. Various studies have shown that it is useful in various diseases such as Bronchial asthma, Colitis, Crohn's disease, Polyarthritis etc. (Alam *et al.* 2012) ^[1] *Boswellia serrata* is a medium-sized branch tree. It belongs to the family Burseraceae. It is obtained by cutting a tree stem and stored in a specially designed basket and sorted according to flavor, texture, size, and color. The *Boswellia serrata* tree grows in the arid highlands of India, North Africa and the Middle East (Siddiqui, 2011; Maupetit, 1984 and Leung and Foster, 1996) ^[2, 3, 4]. Non-steroidal anti-inflammatory drug (NSAID) diets are associated with widespread severe side effects in the intestine or heart.

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

The organoleptic evaluation (Sarathchandiran and Kumar, 2014) ^[5] 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 105 °C, Total ash, Acid insoluble ash, water soluble ash, pH of 1% and 10% solution. The methodology was followed according to protocol of ASU drugs (WHO, 1998 and AYUSH) ^[6, 7].

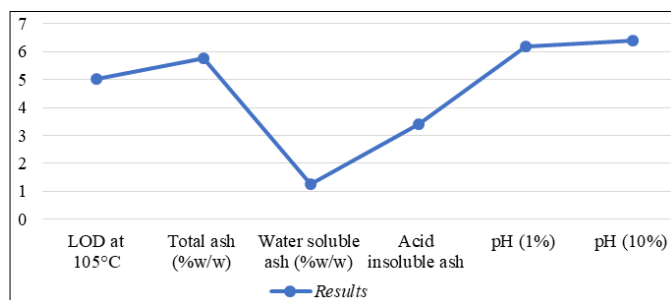
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Result and Discussion

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

Table 1: Show the parameters

S. No	Parameters	Results (n=3) ± SD
1	LOD at 105°C	5.02 ± 0.32
2	Total ash (%w/w)	5.76 ± 0.05
3	Water soluble ash (%w/w)	1.27 ± 0.23
4	Acid insoluble ash	3.39 ± 0.01
5	pH (1%)	6.2 ± 0.02
6.	pH (10%)	6.4±0.01



Graph 1: Physiochemical evaluation of *Boswellia serrata*

Conclusion

In the present study the *Boswellia serrata* was tested physiochemically to establish its physiochemical values. Standards will be used to identify and control quality. In Herbal drugs standardization is an important measure of knowing the quality, ownership and purity of a drug. Measurement can help increase productivity, compliance, safety, duplication or quality.

Conflict of interest: Nil

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