

ROLE OF MEDICINAL PLANTS IN NON-THERAPEUTIC PURPOSES IN AYURVEDA: A SHORT REVIEW

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ABSTRACT

Medicinal plants are the inherent part of Ayurvedic system of medicine. Different forms of plant extract are used in the Ayurvedic treatment regimen. But interestingly the uses of plant either partly or fully in *Ayurveda*, is not only limited to its direct use in therapeutics, but they are used indirectly in several other places of interest, which are related to pharmaceutical processing and manufacturing of Ayurvedic drugs, or in the application of medicaments to the patients. This interesting short review illuminates the non-therapeutic role of medicinal plants in *Ayurveda*.

Keywords: *Ayurveda*, Medicinal plants.

INTRODUCTION

Ayurveda approaches through holistic treatment through natural drugs. Hence forth, plants are the obvious choice of seers and luminaries of *Ayurveda* in the preparation of potent medicines. They carefully manipulated the pharmacological and therapeutic action of the plants and prepare the dosage form that's best suited for the healing of a particular disease. They are used in the *Ayurveda* in the form of various therapeutic roles in different dosage forms:

- *Pancha vidha Kasya Kalpana*: Plants are primarily used in the form of five basic forms; they are *swarasa* (freshly expressed juice), *kalka* (paste), *hima* (cold infusion), *phanta* (hot infusion) and *kwatha* (decoction).
- Secondary *kalpanas*: Plants are also the nucleus of the recipes for the preparation of *sneha*, *sandhan* and other *kalpanas*.

- *Kshara* preparation: Plants are used in the form of their burnt ashes.
- *Sodhana* karma: Plants are also used for *sodhana* karma of various metals and minerals to detoxify them and increase their therapeutic value.

Apart from the direct therapeutic role, plants play an important part in other sectors of *Ayurveda*. Whether pharmaceutical formulation techniques, or application of dosage forms, Ayurvedic medicinal plants, play an important role in non-therapeutic area also in the field of *Ayurveda*.

Role of medicinal plants in non-therapeutic area

As a fuel: According to *Rasa Ratna Samuchchaya*, Coal obtained by burning the wood of *Madhuka* (*Madhuka indica*) and *Khadira* (*Acacia catechu*) is best for liquefaction of metals in *Rasashastra*. Coal derived from *Vamsa* (*Bambusa bambos*) is

used when intensive fire and heating is required whereas, for *swedana* process (boiling) coal of *Badara* (*Ziziphus sativus*) is preferred as a fuel¹.

As an ingredient in manufacturing Ayurvedic pharmaceutical utensils: *Mushas* are pharmaceutical apparatuses used for heating various kinds of substances of therapeutic importance. *Mushas* can be compared with modern day crucibles. *Sana* (*Corchorus species*), *Bala* (*Sida cordifolia*), *Vajra valli* (*Cissus quadrangularis*) are used with other ingredients for the preparation of *Mushas*².

In human body dissection: In *Avagharsana* process, *Sushruta* developed a highly methodical and scientific approach for dead body dissection. In this process the dead body is first cleaned internally by removing fecal matter and intestines. Then the dead body is kept over elevated bed over current free water bodies for putrefying for seven days. After putrefaction the dead body is scrubbed with *Usheera* (*Viteveria zizanioides*) root and *Vamsa* (*Bambusa bambos*) flakes. Slow scrubbing cause wider visibility of epidermis and dermis and subsequently other organs³.

In measurments: *Sarshapa* (*Brassica campestris*), *Yava* (*Hordeum vulgare*) and *Gunja* (*Abrus precatorius*) are used as measurements in *Ayurveda*, due to more or less fixed weights. Eight *Sarshapa* makes one *Yava*, four *Yava* makes a *gunja*. One *gunja* is equal to 125 mg⁴.

In pharmaceutical processing:

***Parpati* preparation:** Preparation of *Parpati* is done for the following reasons:

1. *Parpati* is one of the method among the 25 other methods known as '*Parada bandha*', that means to control the movement and fragility of the mercury.

2. There is an application of heat for the preparation of *Parpati*, hence heat energy may enhance its therapeutic efficacy in treating dyspepsia, diarrheas, dysentery, etc.

3. There is the application of cow dung cakes, which comes from the alimentary canal of the cow and may have some enzymatic activity.

For the preparation of *Parpati*, black colored amalgam of Mercury and Sulfur is prepared and then it is melted at the temperature of 119⁰C (melting point of sulfur). The melted *Kajjali* is distributed over big leaves of *Arka* (*Calotropis species*), *Naga valli* (*Piper betel*), *Eranda* (*Ricinus communis*), *Kadali* (*Musa acuminata*), *Palasha* (*Butea monosperma*), etc and covered a square or rectangular shaped slabs made of cow dung cakes, after pouring the melted *Kajjali*, it is pressed by another slab made up of similar materials, and after self cooling, the crunchy black layers of *Parpati* is collected and powdered and stored in the bottle⁵.

***Putapaka swarasa* preparation:** *Putapaka swarasa vidhi* is applied for those plants for which *swarasa* preparation is very difficult, like *Vasa* (*Adhatoda vasica*). For those particular plant leaves, they are taken and made into bolus form and then they are wrapped in with big and sturdy leaves like *Vata* (*Ficus species*), *Jambu* (*Eugenia jambolana*), etc and tied with threads and covered with mud. It is dried and then burned within the flame of cow dung cakes. After the completion of process the plant bolus is taken out and squeezed to extract the juice⁶.

In Size reduction: Size reduction is performed in the case of preparation of homogeneous *Abhraka* (Mica) by the sharp edges of *Sali dhan* (*Oryza sativa*). In this process mica and 1/4th *Oriza sativa* are taken in a

jute bag/blanket and dipped in water or sour gruel for three days. After the *Oryza sativa* get swelled up by imbibitions, it creates immense pressure to the adjacent mica in the enclosed wrapper, continuous levigation causes extra force by which the *Oryza sativa* breaks the mica into small pieces and thus comes out from the wrapper to the fluid. The mica thus obtained is known as *Dhanyabhraka*⁷.

CONCLUSION

Thus we see there is a vast array of different requirements of medicinal plants in *Ayurveda*. Besides the therapeutic role, these plants are also useful in manufacturing of other drugs. Apart from pharmacological action of these plants which are responsible for therapeutic use, the physical structure and morphology of these plants are useful to describe their utility in non-therapeutic field. For example the good incinerating property of *Ziziphus species* or *Acacia catechu* wood makes it a good fuel, where as large structure of the leaf of *Ficus species* or *Butea monosperma* makes it a good medium for wrapping purposes in the preparation of *Putra paka swarasa*. Good abrasive quality and brush like structure of *Viteveria zizanioidis* makes it a good scrubber for *Avagharsana* process.

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