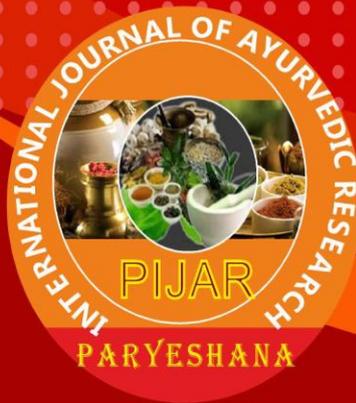


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AYURVEDIC AND MODERN LITERATURES

LITERARY REVIEW OF KASTURI (INDIAN MUSK) WITH SPECIAL  
REFERENCE TO AYURVEDIC AND MODERN LITERATURES

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**Abstract**

Kasturi (Indian Musk) is one among the animal origin drug. It is used as medicine/cosmetic from the musk pod of matured male musk deer. Kasturi is the dry secretion of male musk deer that is collected in a pocket situated between the naval and penis of the deer. Musk has been a key constituent in many perfumes since its discovery, being held to give a perfume long lasting power as a fixative. Govt of India has made policy i.e CITES, and protected under this policy as endangered species. The detail description of its general information, habitat, Morphology, Synonyms, etymology, types, part used, traditional pharmacology, collection, best quality, purity tests method of preparation of artificial Kasturi, properties, Indications, formulations, therapeutic uses etc are richly found in Ayurvedic literatures. It is a diffusible stimulant, anodyne, cardiac, expectorant, diaphoretic, aphrodisiac. Authors are hopeful, the article will help the researchers of Ayurveda as well as in other fields of bio-medical sciences to explore more about the said drug for the benefit of society.

**Keywords:** Kasturi, Indian musk deer, CITES, Perfume, Musk Pod.

**Introduction**

Ayurveda, world's most ancient healing heritage uses the plant and animal kingdom since its inception both for diet and medicine as when required. Among many animal origin drug Kasturi is one of the valuable and beneficial drug which acts on cardiac

system, nervous system, respiratory centers, uro-genital organs etc. It is used as medicine/cosmetic from the musk pod of matured male musk deer. It is also found in few animals and plants in different forms. Kasturi is also called as Mrigamada. It acts principally on the heart and the nervous system.

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### Historical View <sup>1,2</sup>

Musk was unknown in classical antiquity and references to it does not appear until the 5<sup>th</sup> century when it is mentioned in Talmud (Brachot 43) as animal based fragrance. The 6<sup>th</sup> century Greek explorer Cosmas Indicopleustes mentioned it as a product obtained from India. Soon afterwards Arab and Byzantine perfume makers began to use it, and it acquired a reputation as an aphrodisiac. Under the Abbasid empire of Arabs it was highly regarded, and the caliph of Baghdad used it lavishly. King of Assam-----Sent Kasturi mriga & kasturi kosha among presentation to King Harsha-vardhana.

### Vernacular Names <sup>2,5</sup>

Sanskrit – Kasturi Mriga

English – Musk Deer

Kannada – Kasturi

Genus – Moschus

Species – Moschiferus

Zoological Name – Moschus

Moschiferus

Family- Cervidae

### Habitat <sup>5</sup>

Musk deer are herbivores, living in hilly forested mountainous parts of Asia & parts of Eastern Russia, away

from the human habitation. Found in India, Pakistan, Tibet, China, Siberia, & Mongolia. Birth– single fawn after about 150 to 180 days.

### Morphology <sup>4,5</sup>

Musk deer resembles small deer with a stocky build and hind legs are longer than their front legs. They are approximately 80-100 cm length, 50-70 cm tall at the shoulder, and weight between 7-17 Kg. The feet of musk deer are adapted for climbing in rough terrain.

Dental formula is similar to that of true deer. – 0.1.3.3 - UJ

#### 3.1.3.3 - LJ

Musk gland is found only in adult males. Female musk deer gives birth to a single fawn after 150 to 180 days. Its secretion is most likely to attract its mates. body covered with long, thick and bristly hairs white at base, protecting from cold and an approximate weight of 12 Kg. Body coat is covered with ,thick and bristly hair white at base and pithy, protecting from severe cold encountered at high elevation. Pair of long canine tusks in the upper jaw and a musk gland on the abdomen is special feature in males. Musk deers

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are generally shy, and either nocturnal or crepuscular. Males leave their territories during the rutting season and compete for mates, using their tusks as weapons.

### Collection

To obtain the musk, the deer is killed and its gland, also called "musk pod" is removed.

### Part Used

Musk secreted from musk pod of matured male deer.

### Description Of The Part

Musk is embedded in a sac which is oval or rounded with a diameter about 1 and 1/2 inches. Musk when fresh is milky but later turns viscid and assumes a brownish red colour.

### Storage and processing techniques

It is dried either in sun light on a hot stone or by immersion in hot oil. Upon drying the reddish brown paste turns into a black granular material called "musk grain" which is used for alcoholic solutions.

### Best Quality Musk<sup>5,6</sup>

Kamaru desha utpanna shreshta. (B.P.N)

Musk when fresh it will be milky but later turns to viscid & assumes a brownish red color.

It retains its odour even when mixed in ratio of 1:3000 parts of water.

Its synonym is "shasrabida" which enlightens on its purity.

It is dark purplish colour, dry, smooth & unctuous to touch & bitter in taste.

### Rasa Panchaka<sup>6</sup>

Rasa- Tikta, Katu

Guna – Laghu, Ruksha, Tikshna

Vipaka- Katu

Veeraya- Ushna

Dosha Karma – Acts on Kapha, vata

Dosha

### Rogaghata<sup>5</sup>

It is good for vision, leprosy, mouth diseases, used in cold, cough because of its hot potency.

### Chemical composition<sup>5,8</sup>

In addition to its odoriferous principle, it contains Ammonia, obeine, Cholesterin, Fat, Wax, Glutinous matter, Albuminous substance, A bitter resinous substance

### Actions<sup>5,7,</sup>

Veeryajanaka, kaphavata, visha, chardi, sheetha, durgandha & shoshahara. It acts as stimulant, anodyne, antispasmodic & aphrodisiac. It improves the circulation & raises

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arterial tension. It is stimulant of urino genital organ. Stimulant for respiratory center Appetizer, mood elevator, tonic for vital organs & sexual functions. Acts as carminative, anti-diarrhoeal, antiemetic, anti-inflammatory, expectorant drug

### Uses & indications

Hysteria hiccup asthma palpitation. Insanity, epilepsy, loss of memory, paralysis. Gonorrhoea, eye diseases, Anti inflammatory. It also strengthens interanal and external sense organs

### Administration of kasturi

It can be administered singly or in formulations

### Dosage :

60- 120 mg.

**If singly—** anupana -madhu  
makaradhwaja

### Visistha Yogas<sup>11,12</sup>

Nagavallabha Rasa

Brihat kasturibhairav Rasa

Vatakulantaka Rasa

Kasturi modaka

Kasturi gutika

### Contra-Indications

In ushna –prakriti persons

### In the management of adverse effect-

Gulab-jala , Vansalochana

### Musk yield-

Musk yields by distillation with steam and subsequent purification

A small percentage of viscid colorless oil . This scented oil contains Ketone & muskone

1kg of musk grain can be collected by killing 40-50 young male musk deers

Yield is very less form in bala kasturi mruga,vrudda,& in roga grasta kasturi mugra.

### Musk found in others

#### In Animals-

Antilope dorcas-Deer

Capra Ibex-Sheep like animal-in blood

Mustela faina-in stools

Ovibos moschatus-Ox-in meat

Musk rat –North America

Musk duck-South Australia

Castor fiber-fox like animal

#### In plants-

Seeds of lata kasturi

Yavis (Hissopus officinalis)

In Sirilanka some plants like-Brihat

Gokshura & Asafotida

### Adulteration & Substitution

Owing to its high price & rarity, adulterated with cheaper, spurious things & artificially prepared aroma.

To increase its weight it is mixed with dried blood, liver pieces , wheat etc

### Test For Purity<sup>8,9</sup>

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Its crystals should not be mixed or immersed in water. When mixed in water, should not be change in color.

Pure kasturi is soft & artificial is hard.

When burnt it gives off urinous smell leaving grayish ash about 8%

When put on paper yellow color is observed  
Dissolution & Solubility- It dissolves in boiling water to the extent of about half. It is soluble in alcohol to the extent of about 10%.

In ether & chloroform it dissolves still less.

### Most Expensive

It is the most expensive animal product in the world, 4 times costlier than Gold

### Potency of Musk<sup>8</sup>

Musk taken out from pods -till 1yr

Musk inside the pod -till 3yrs

### Government Policy

Musk has been a key constituent in many perfumes. Since its discovery, being held to give a perfume long lasting power as a fixative. Despite its high price, musk tinctures were used in perfumery until 1979. When the musk deers were protected as an endangered species by the convention

on the International Trade in Endangered species (CITES) of wild flora & Fauna.

### Conclusion

Kasturi is life saving drug in case of Cardiac emergencies. Its classical preparations like Kasturi Bhairava Rasa, Naga Vallabha Rasa etc are the marvelous preparations in various diseases mentioned. Being this Kasturi (Musk Deer) is 4-5 times costlier than gold its limited uses only for critical care. As musk is endangered animal's product it is better to use plant products for medicinal purposes and synthetic musk can be advised for perfumery uses.

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