ABSTRACT

Gairika (Red Ochre) a silicate of Alumina and oxide of Iron. It is known as Geru in Ayurveda. It is sweet, astringent, anti-phlegmatic, anti-bilious and cooling. It is only purified and not required to undergo incineration process. It is used in skin diseases, piles, bleeding disorders, ulcers, boils, urticaria, vomiting, hiccups etc. It is not used as single drug but as an ingredient of some compound preparations containing a large number of mineral drugs. Gairika occurs as an alteration product of other iron minerals or by degradation of highly ferruginous rocks in the form of weathered residual concentrations. It is generally found mixed with clay and other impurities. The toxic effects and unwanted properties may be neutralized by bhawana dravya, Godugdha. In this study, we will understand the physical and chemical the effects of bhawana dravya, Godugdha on Gairik.

KEYWORDS

Gairik, Astringent, Anti –phlegmatic, Bhawana, Urticaria
INTRODUCTION

Gairika (Red Ochre) a silicate of Alumina and oxide of Iron. It is known as Geru in Ayurveda.\(^1\) Chemically it contains 70% iron and 30% Oxygen. Gairik occurs in compact, granular, or earthy masses, sometimes in crystal form also. The earthy varieties are apparently soft but crystalline hematite is hard. Red ochre is red earthy hematite. It is very soft and possesses a dull luster. It contains considerable amount of clay, sand and other impurities. The word hematite means bloodlike. It is a ferric oxide and in its pure form, hematite consists of 70% iron. The mineral occur in variety of forms, including shiny crystals, grainy rock and earthy material. Hematite is brownish red or dark red, but a fresh scratch on hematite rock is blood-red. But it is not used as single drug but as an ingredient of some compound preparations containing a large number of mineral drugs.

VERNACULAR NAMES\(^2\)

- Sanskrit: Svarna gairika
- English: Ochre
- Hindi: Geru, Gerumitti
- Chemical formula : Fe\(_2\)O\(_3\)

SYNONYMS\(^3\)

- Gaireya, Girimrittika
- Raktadhautu, Lohadhatu
- Girimridbhava etc.

OCCURRENCE\(^4\)

In India, Gairika (Red ochre) are chiefly found in Singbhoom(Bihar), Mayurbhanja and Sundergarh (Orissa), Bettari and Chikmanglore, Shimoga in Karnataka, Gwalior, Jabalpur, Satna, Kailashpur, Madhogarh and Mandla in Madhya Pradesh and Udaipur, Alwar, Bikaner, Chittorgarh and Sawai Madhopur in Rajasthan. Other known occurrences are in Andhra Pradesh and West Bengal.

VARIETIES\(^5\)

Two main varieties of Gairik are mentioned in Ayurveda:

1. Pasana gairik
2. Svarna gairik

The Pasana gairik is hard variety of hematite, while the Svarna gairik is soft, smooth and deep red.

Third variety

SAMANAYA GAIRIK\(^6\)

It may contain less clay and sand. The percentage of Iron is very high in Pasana gairik and modern times Iron is generally extracted from this variety of hematite.

ACCEPTABLE VARIETY\(^7\)

Swarna gairik is supposed to be the best variety, which is used for medicinal purpose. It is only purified and not required to undergo incineration process.

PHARMACOLOGICAL PROPERTIES\(^8\)

Rasa: Madhura, Ksaya
Guna: Snigdha, Sita
Virya: Sita
Karma: Caksusya, Raktastabhaka

THERAPEUTIC USES OF SHUDDHA GAIRIK

Shuddha Gairika, is used in treatment of Netra roga (diseases of eyes), Raktapitta (bleeding disorder), hikka (hiccup), vamana (vomiting), vata vikara (disorders due to poison), Rakta pradara (Menorrhagia or Metrorrhagia or both), kandū (itching), Jvara (fever), daha (burning sensation) and Udara roga (diseases of abdomen).

AIM

Suvarna-gairik was taken and triturated with cow’s milk. In this study, we will understand the physical and chemical the effects of bhawana dravya, Godugdha on Gairik.

MATERIALS AND METHODS

Collection of raw materials
Good quality Swarna Gairik was purchased from local market of Yamuna nagar, Haryana. All the procedures were done in pharmacy of Choudhary Devi Lal College of Ayurveda and Hospital, Jagadhri, Haryana. Sufficient quantity of Godugdha and a khalwa yantra were also taken. (Fig no-1 and Fig no-2).

OBSERVATION AND RESULT

Shodhit Swarna Gairik was Reddish brown in colour, Massive clayey and smooth in touch. Its lustre was earthy. It is opaque. But it has to be used immediately,
as it becomes rancid after few hours.(Fig no-3,Fig no-4).

![Godugdha Bhawana](image1)

**DISCUSSION**

*Shodhana* is combinations of processes which removes unwanted material from the drug & controls toxic effect then enhance the properties of drug. Also by *shodhan* process we can improve qualities of basic elements of drug to exert its good effect. In Raw *Swarna Gairik* the presence of water and oxygen molecules increase the chances to have free ferrous ions. The body must be protect itself from free ions which is highly toxic and participates in chemical reactions that free radicals. During *Godugda bhawana* free Fe (II) converted into Fe (III) ions. Fe (III) ions are absorbed easily. So shodhan process may increase the absorption rate of *Gairik* in body.

**CONCLUSION**

Without *Shodhan* we cannot use any drug in Ayurvedic formulations. For efficacy & safety of drug proper *Shodhana* is very important. As we discussed above, how *shodhan* process is important and *bhawana of godugdha in gairik* enhance its pharmaceutical actions.
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