

## Review study of *Yashad*

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### ABSTRACT:

*Ayurveda* is considered as the oldest healing science and “The Science of Life.” “Mother of All Healing” In *Ayurveda* there are so many or thousands of medicine that focuses on the treatment and diagnosis of diseases and condition that affect physical and emotional well being. *Yashad* is one of drug which cures many diseases (**COVID 19**-Administration of zinc supplement has a potential to enhance antiviral immunity) This *Yashad* / Zinc is mentioned in one of the *Ayurvedic* branch *Rasashastra* & *Bhaishajya Kalpana*. This branch basically deals with the preparation of *Ayurvedic* medicines using herbs mineral drugs. *Acharya Carak* has said that for the successful management of the disease, it is essential to select proper medicine and examine it in all aspects. But it is possible only after proper identification of the drug. Due to this *Acharya Caraka* placed the *dravya (ausadhi)* in second position in

*Chikitsa Chatuspad*. The four aspects of therapeutics are the physician, the medicament, the attendant and the patient. They are responsible for the cure of disease. They have requisite qualities.

**Key Words:** *Ayurved*, *Rasa Shastra*, *Yashad*, Zinc, *Shodhan*, *Jaran*, *Maran*,

### Introductions:

*Ayurveda* is considered as the oldest healing science and “The Science of Life.” “Mother of All Healing” In *Ayurveda* there are so many or thousands of medicine that focuses on the treatment and diagnosis of diseases and condition that affect physical and emotional well being. *Yashad* is one of drug which cures many diseases (**COVID 19**-Administration of zinc supplement has a potential to enhance antiviral immunity) This *Yashad* / Zinc is mentioned in one of the *Ayurvedic* branch *Rasashastra* & *Bhaishajya Kalpana*. This branch basically deals with the preparation of *Ayurvedic*

medicines using herbs mineral drugs. *Acharya Carak* has said that for the successful management of the disease, it is essential to select proper medicine and examine it in all aspects. But it is possible only after proper identification of the drug. Due to this *Acharya Caraka* placed the *dravya (ausadhi)* in second position in *Chikitsa Chatuspad*. The four aspects of therapeutics are the physician, the medicament, the attendant and the patient. They are responsible for the cure of disease. They have requisite qualities.

## MATERIALS AND METHODS

For this study classical Ayurvedic text, modern texts along with information from e-journals is referred.

## AIM AND OBJECTS:

To study and understand *Yashad* from Ayurvedic aspect along with its modern perspective.

## Review of Literature:

This article is an attempt to understand *Yashad* from Ayurvedic aspect along with its modern perspective. The entire system of ancient Indian medicine is based on the relationship between the man and nature. The origin of 'Rasa Shastra' has its roots in the 'Indian alchemy'. Alchemy was a form of chemistry studied in the medieval period, in which people tried to discover different way to change ordinary metals into medicine was the unique. *Yashad* is used since ages for several purposes as it is a popular drug in Ayurved and use in many diseases hence it is drug of choice in many disease like leucorrhoea. These drugs are reduced to fine powder and prescribed. **Origen** - In a very destructive war between the *Deva* and *Asura*, from the body of three *Daityas*, two

types of *Kharpara* were given rise to, *Jasada* and *Shavaka*. Among these, *Jasada* is to be used for *Rasayana Karma*. *Kharpara* is nothing but the ore of *Yashada* and so *Yashada* is known to be *Satva* of *Kharpara*<sup>1</sup>.

**On Ayurvedic Platform:** - *Rasarnava*/10<sup>th</sup> cent BC - Use of *Kharparsatva*<sup>2</sup>, *Madanapala Nighantu*/15<sup>th</sup> cent BC - *Yashada* in therapeutics<sup>3</sup>, *Adhamalla*/16<sup>th</sup> cent BC- *Yashada* as *Dhatu*<sup>4</sup>, *Ayurveda Prakasha*/17<sup>th</sup> cent AD - Included in *Rasa-Shastra* as *Yashad*<sup>5</sup>.

**Synonyms** - *Yashada*, *Jasada*, *Ritihetu*, *Kharparaja*, *Kharparsatva*, *Bangasadr*, *Sweta Patra*, *Kamsasthi*, *GirijaRangasadr*, **Vernacular Names**- Arabi- *Shibaha*, Kanada- *Sattu*, Bengali- *Dasta*, Latin- *Zincum*, Brahmi- *Khota*, Malayalam- *Nagam*, *Tamagaputi*, Chinese- *Tutenague*, Marathi- *Jasta*, English- *Zinc*, Nepali- *Dasta*, Gujarathi- *Jasada*, Persian- *Tutiya Rumi*, Hindi- *Jasta*, *Dasta*, Sanskrit-*Jasada*, *Tuttha*, *Yashada*, Irani- *Tutia*, Tamila- *Tutanagam*, Telugu- *Tuttunagam*, *Kharparam*.

**Chemical Names**- *Ruhatutiya*, *Tatiya*, *Atarada*, *Tasadira*, *Shahaja*, *Sange Bastri*.

**Commerce**- Spelter

**Grahya Lakshana\Acceptable**- On Cutting it should be- *Samujjwala*, *Snigdha*, *Mridula*, *Nirmala*, *Dritadrava*, *Mahabhara*, *Bharadhya*, *Shweta Varna*, *Dantura*, *Ghanacchaya*, *Darpanabhasa*, *Sitaprabha*, *Nisheke Rajatvat*, *Dahe Cchede Taalvat*.<sup>6</sup>

**Agrahya Lakshana\Not Acceptable**- *Kathina*, *Kathinadrava*, *Ruksha*, *Rukshaprabha*, *Laghu*, *Malina*, *Khara*, *Chitra*, *Neelaprabha*.<sup>6</sup>

**Categorization by various authors**- Throughout various texts, it is classified under-*Dhatu*- There are 7 *dhatu*s which

support and sustain the living body. *Dhatu* means metal.

**Puti Loha-** The word *Puti* means bad, obnoxious or dirty. All three metals mentioned in this group are supposed to emit obnoxious smell, while they are melting.

**Triloha, Trivanga-** In this group three metals are mentioned viz. *Naga, Vanga & Yashada*.

**Classification- Rasendra Sambhava** has stated the 2 types 1) *Yashada*, 2) *Shavaka* (Among these two varieties *Yashada* is mostly acceptable)<sup>7</sup>

**Important Traits in Vsrious Texts- Ayurveda prakash-** Placement in the category of *Dhatu* – 5<sup>th</sup> in sequence, Revilement of *Pittala* to be the *Upadhatu* of *Yashada*, Correlation of *graha - Bhauma (Mangal)* to *Yashada* through *Ara (Pittala)*.<sup>5</sup>

**Rasendra Chintamani, Rasendra Sara Samgraha, Rasamitra-** Mention of *Rasaka* as *Yashada*.<sup>8,9,10</sup> **Artharidyotini- Ghosha Bheda** is colloquially known as *Jasada-traiva Ghoshabheda Loke Jasada*.<sup>11</sup>

**SHODHANA OF YASHADA -1. Samanya Shodhana** - Pouring 7 times in each- *Til Taila-Takra – Gomutra - Kanji - Kulattha Kwatha*<sup>12</sup>. **Vishesha shodhana - Ayurveda Prakash-** Pouring 7 times in *Sudha Dugdha*<sup>5</sup> **Rasa Tarangini-** Pouring 7 times in *Churnodaka\ Nirgundi Mula Swarasa\ Sudha Dugdha\* 21 times in *Godugdha*,<sup>6</sup> **RasaMitra-** Pouring 3 times in *Nirgundi Mula Swarasa*,<sup>12</sup> **Rasendra Purana-** Pouring 21 times in *Godugdha\* 3 times in *Arka Dugdha\* 7 times each in *Triphala Kwatha -Kumari Swarasa - Karivara Salila*(Elephant Urine),<sup>13</sup> **Ras Tarangini** – The sequence of the liquid medium used for quenching was changed and *takra* was

excluded,<sup>6</sup> **Rasendra Sambhava-** Pouring 7 times each in *Kanji-Gomutra- Katutumbika Rasa\ Nirgundi Mula Swarasa\ Snuhi Dugdha\* 21 times in *Godugdha*,<sup>7</sup> **Rasendra Sampradaya-** Pouring 3 times in *Churnodak\* 6 hrs *Swedana/Fomentation* in *Churnodak*,<sup>14</sup> **Rasendra Vijnanam-** Pouring 7 times in *Nimbu Swarasa*,<sup>15</sup> **Rasa Darpana-** Pouring 21 times in *Godugdha\ Haridra Yukta Nirgundi Swarasa*,<sup>16</sup> **Bharatiya Rasa Paddhati-** Pouring 7 times in *Nirgundi Mula Kwatha\* 21 times in *Godugdha*,<sup>17</sup> **Ayurvediya Ausadhi Guna Dharma Sastra-** Pouring 21 times in *Godugdha\* 1 time each in *Bijora Nimbu Swarasa Naramutra - Aswamutra - Takra – Kanji*,<sup>18</sup> **Ras Bindu-** Pouring 7 times in *Churnodaka \ Snuhi Dugdha\ Godugdha\ Nirgundi Mul Swarasa*,<sup>19</sup> **Rasa Chikitsa-Kadali Kanda Swarasa \ Churnodaka,<sup>20</sup> **Rasa Chandanshu, Rasa Jala Nidhi, Rasamrita, Brihat Rasa Raja Sundara, Rasayana Sara, Rasa Tantra Sara & Siddha Prayoga Samgraha** - Pouring 21 times in *Godugdha*<sup>25,21,10,22,23,26</sup>**

**JARAN AND MARANA OF YASHADA - Ayurveda Prakash** Conversion of *Yashada* in powder form by burning *Apamarga churna* (1/4<sup>th</sup> part) in *Yashada* and then burning on intense fire,<sup>5</sup> **Rasa Tarangini** Conversion of *Yashada* in powder form by burning *Apamarga churna* (1/4<sup>th</sup> part) in *Yashada* with help of Iron rod and then burning on intense fire,<sup>6</sup> **Rasa Jala Nidhi** Conversion of *Yashada* in powder form by burning *Nimba patra* in *Yashada* with help of Iron rod in Iron pan\ Levigation to *Jarita Yashada* and *Parada - Gandhaka* (1/4<sup>th</sup> part) with *Kumari swarasa* and then incineration in single *Gajaputa*,<sup>21</sup> **Rasa Mitra**

Conversion of *Yashada* in powder form by burning *Apamarga churna* in *Yashada* and then levigation with *Kumari swarasa*, incinerated in 7 *Gajaputa*,<sup>12</sup> **Rasamrita** Conversion of *Yashada* in powder form by burning *Bhanga churna* in *Yashada* and then levigation with *Kumari swarasa*, incinerated in 7 *Gajaputa*,<sup>12</sup> **Brihat Rasa Raja** Levigation to *Jarita Yashada* and *Parada - Gandhaka* (1/4<sup>th</sup> part) with *Kumari swarasa* and then incineration in single *Gajaputa* Conversion of *Yashada* in powder form by burning *Nimba patra* in *Yashada* with help of Iron rod in Iron pan,<sup>22</sup> **Rasendra Purana** Levigation to *Jarita Yashada* and *Parada - Gandhaka* (1/4<sup>th</sup> part) with *Kumari & Nimbu swarasa* and then incineration in single *Gajaputa* Conversion of *Yashada* in powder form by burning *Nimba churna* in *Yashada* with help of Iron rod and then burning on intense fire,<sup>13</sup> **Rasendra Sambhava** Levigation to *Jarita Yashada* and *Parada - Gandhak* (1/4<sup>th</sup> part) with *Kumari & Nimbu swarasa* and then incineration in single *Gajaputa* Preparation of *pishti* with *Parada* followed by addition of *Gandhaka* and then incinerated in *sharava* Conversion of *Yashada* in powder form by,<sup>7</sup> **Rasa Darpana** Conversion of *Yashada* in powder form by burning *Bhanga / Ahipheena churna* in *Yashada* with help of strong *Nimba/Babbul/Badar/Palash* shaft and after levigation with *Kumari swarasa*, incinerated in single *Gajaputa*,<sup>16</sup> **Rasa Chikitsa** *Yashada & Kajjali* (1 part *Parada* + 2 part *gandhaka*) are triturated with *Kumari* and then tied with *Eranda patra* and kept in *Tamra patra*. This is kept in bag full of grains for 3 days,<sup>20</sup> **Rasa Chandanshu** Levigation to *Jarita Yashada* and *Parada -*

*Gandhaka* (1/4<sup>th</sup> part) with *Kumari & Nimbu swarasa* and then incineration in single *Gajaputa*,<sup>25</sup> **Ayurvediya Ausadhi Guna Dharma Sastra** Levigation to *Jarita Yashada* and *Parada - Gandhaka* (1/4<sup>th</sup> part) with *Kumari & Nimbu swarasa* and then incineration in single *Gajaputa*,<sup>18</sup> **Rasa Tantra Sara Evam Siddha Prayoga Samgraha** Levigation to *Jarita Yashada* and *Parada - Gandhaka* (1/4<sup>th</sup> part) with *Kumari & Nimbu swarasa* and then incineration in single *Gajaputa*.<sup>26</sup>

**Properties-** यशदंतुवरंतिक्तंशीतलंकफपित्तहृत्

/चक्षुष्यंपरमंमेहान्पाण्डुश्वासंचनाशयेत्/

*Rasa- Kashaya, Tikta, Guna- Ruksha, Virya- Shita, Vipaka- Katu, Varna- Pitabha shwet*<sup>5</sup>

**Rasa Tarangini-** Kundendu Dhawala ,<sup>6</sup>

**Rasendra Sampradaya** (according to heat)

*Samagni- Pandu / Sweta, Kharagni- Pita, Hathagni- Green,*<sup>7</sup> **Aushadhi Guna Dharma**

**Shastra-** Reddish Yellow<sup>18</sup>,

**DOSHAGNATA-** Kaphahara, Pittahara

**THERAPEUTIC INDICATIONS OF YASHADA BHASMA:**

यशदंतुवरंतिक्तंशीतलंकफपित्तहृत्

चक्षुष्यंपरमंमेहान्पाण्डुश्वासंचनाशयेत्/

यशदं पाण्डुशमनंबहुमेहनिषूदनं

/कासश्वासप्रशमनंनिशास्वेदनिर्बहणम्/

*Pandushamaka, Bahumehahara, Kaasa-*

*Shwasashamaka, Nishaswedanashaka,*

*Shleshmakala sankochaka,*

*Vranasraavarodhaka,*

*Shramaavasadshamana, Rajahsraavnashaka,*

*Kampavatnashaka, Chakshushya.*<sup>5,6</sup>

**DOSE:** ½ to 1 Ratti, 2 Ratti<sup>5</sup>

**SIDE EFFECTS OF IMPROPERLY PREPARED YASHADA BHASMA :**

*Prameha, ajirna, vami, bhrama, vatavyadhi,*



*raktapitta.Dhatunaash,  
Jwara.Vikarshantiupay- Bala-Abhaya  
churna with Sugar for 3 days*<sup>5</sup>

### **Zinc**

**History-** Zinc as a pure metal became known relatively recently. The oxide of Zinc used by Romans has been termed as Cadmia. Brass an alloy of Zinc and Copper however was known to the ancients. Bracelets made of Zinc have been found in the ruins of Cameros which was destroyed about 500 B.C. Indians have acquired a proficiency in winning this metal in about 1374 A.D. and used to supply it in large amounts to the neighbouring countries. As earlier mentioned the term Zinc probably has been picked up by a Swiss Alchemist Paracelsus in 1409-1541 A.D.<sup>26</sup>

**Occurrence-** The occurrence of Zinc in India is rather limited. Ancient Zinc mines exist near Zawar and Udaipur in Rajasthan. Zinc is not found in native to the appreciable extent, but its compounds are widely distributed which are as follows- Sphalerite- (Zn,Fe)S, Zincite- ZnO<sub>2</sub> or ZnO, Smithsonite or Zinc Spar ZnCO<sub>3</sub>, Zinc Blende- ZnS, Zinc Spinel- ZnO.Al<sub>2</sub>O<sub>3</sub><sup>27</sup>

**PROPERTIES: Metallic Element** - Atomic Number- 30, Groups- II B, Atomic Weight- 65.38, Valency- 2, Isotopes (stable) – 5, Density- 7.14, Melting point- 419° C, Boiling Point- 907° C, Malleable at- 100° C to 150° C<sup>28</sup>

**CHARACTERISTICS-** Shining white metal with bluish gray luster, Tarnishes to a grey colour when exposed to moist atmosphere, Exhibits allotropic modifications i.e. ordinary Zinc is brittle and crystalline, When heated in the air to over 100°C, it burns with a bluish-white flame

and gives a dense smoke of very light Zinc Oxide. It is so light that it has been known as “**PHILOSOPHER’S WOOL**”, above 205°C it becomes so brittle that it can be grounded, Strongly Electropositive, Very conductor of heat, Ignites in presence of Moisture, Insoluble in Water.<sup>29</sup>

### **ZINC AND HEALTH**

**COVID 19-** Administration of zinc supplement has a potential to enhance antiviral immunity.

**Immune function-** Severe zinc deficiency depresses immune function, and even mild to moderate degrees of zinc deficiency can impair macrophage and neutrophil functions, natural killer cell activity, and complement activity<sup>30</sup>. The body requires zinc to develop and activate T-lymphocytes. Individuals with low zinc levels have shown reduced lymphocyte proliferation response to mitogens and other adverse alterations in immunity that can be corrected by zinc supplementation.<sup>31</sup>

**Wound healing-** Zinc helps maintain the integrity of skin and mucosal membranes. Patients with chronic leg ulcers have abnormal zinc metabolism and low serum zinc levels, and clinicians frequently treat skin ulcers with zinc supplements.<sup>32</sup>

**Diarrhoea-** Zinc deficiency causes alterations in immune response that probably contribute to increased susceptibility to infections, such as those that cause diarrhoea.<sup>33</sup>

**The common cold-** Researchers have hypothesized that zinc could reduce the severity and duration of cold symptoms by directly inhibiting rhinovirus binding and replication in the nasal mucosa and suppressing inflammation.<sup>34</sup>

**ZINC DEFICIENCY-** Zinc deficiency is characterized by growth retardation, loss of appetite, and impaired immune function. In more severe cases, zinc deficiency causes hair loss, diarrhoea, delayed sexual maturation, impotence, hypogonadism in males, and eye and skin lesions. Weight loss, delayed healing of wounds, taste abnormalities, and mental lethargy can also occur. Many of these symptoms are non-specific and often associated with other health conditions; therefore, a medical examination is necessary to ascertain whether a zinc deficiency is present.<sup>35</sup>

## DISCUSSION

In Ayurveda there are so many or thousands of medicine that focuses on the treatment and diagnosis of diseases and condition that affect physical and emotional wellbeing. *Yashad* is one of drug which cures many diseases. This article is an attempt to understand *Yashad* from Ayurvedic aspect along with its modern perspective.

## CONCLUSION

*Yashad* an important mineral used in many diseases like leucorrhoea etc. Review of literature also revealed that use of *Yashad* has been mentioned in different text. There is increasing future in mineral drug research. Drug research should be emphasized, focused ethically keeping in the view of the betterment of human health. In addition to this there is contemporary demand, globally for various Ayurveda products. There will be huge opportunity in research area for the mineral drugs and it could be achieved by reforming the current scenario for mineral research procedure by leveraging modern technology in operations provided with the help of regulatory framework.

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