Abstract

Rasashastra and Bhaishajya Kalpana is one of the branch of ayurveda that deals with the pharmaceutical processing, preparation of compound medicines and therapeutic utility of herbal drugs, metals and minerals. Mrityunjaya Rasa is one such Kharaliya herbo-mineral formulation mentioned in various Ayurvedic text. Mrityunjaya Rasa is commonly indicated in Jwara Chikitsa (Fever). Even there are reference to be used in disease such as Prameha (Diabetes mellitus), Kshaya (Tuberculosis), Vajikaran (Aphrodisiac), etc. Though variation is observed in the description of these Kharaliya Rasayana and compilation of these will help to study in comparative manner.

Key Words - Mrityunjaya Rasa, Kharaliya Rasayana, Jwara.

Introduction

Herbo-mineral compounds occupies significant seat in Ayurvedic pharmaceuticals. Nearly 70 % formulations include combination of one or more metallic/mineral bhasma with several herbs which have supporting role in improving efficacy of bhasma, reliving symptoms of disease and to avoid adverse effect of bhasma. These Herbo-mineral compound known as Rasa dravyas have the following three characteristic attributes: instant effectiveness, requirement of very small doses and extensive therapeutic utility irrespective of constitutional variation. The following Sloka (verses normally in two lines) describes the above given attributes of rasa.

“Alpamaatropayogitwaat Arucera Aprasangataha.
Kshipram Aarogyebhyo Adhiko Rasaha”
Thus, the above all characteristics are seen in kharaliya rasayana which is combination of herbal drugs and metals-minerals triturated together along with liquid dravyas. Mrityunjaya Rasa is one such Kharaliya rasayana which is indicated in Jwara which is also known as Rogasamooharat i.e. Group of disease. Jwara has been said to be the chief among the diseases (Rogānāma pradhānah). Its importance has been established by the statement that it attacks the living body at its both the times- the birth and the death. It is also said that there is no living body which is not attacked by it. The term Jwara is generally translated as fever, though it does not convey all the senses of the term. The term Jwara means that condition in which mind, sense organs and the body all are troubled (Dehendriya mana santaap).

Jwara (Fever) is characterised by elevation of body temperature, loss of perspiration and varying degree of pain in the body. The Jwara as a disease has been clinically divided and subdivided under many groups. Thus, for management of this disease, Mrityunjay rasa has been indicated for various types of these disease. There are various references available having name as Mrityunjay rasa in various Rasa aushadhis text. Though variation in ingredients is observed among these, there is resemblance in almost all formulations in perspective of levigation. Thus, present study is an attempt to go through references of Mrityunjay rasa formulations in literature in order to have comparative better understanding of these formulations in terms of their composition, drugs specified for levigation, indications and contribution of various texts regarding this particular drug.

Aim

Aim of the present study is to compile all available references of Agnikumar rasa available in text and to study them in comparative manner in terms of their composition, method of preparation, dose, indications and contribution of various texts regarding these particular formulation.

Materials and methods

References of Mrityunjaya Rasa will be compiled from various Rasa text and compendium and particular contribution of each text will be noted. Online available information was also compiled and studied. Research works conducted at various institutes were not available hence published data was compiled to interpret the classical information.

Literary review

Mrityunjay Rasa is not mere a single formulation but a variety of formulations across different text have been quoted as Mrityunjay Rasa. Name of drug itself throws light on the action of the compound i.e. it is a formulation which aids to use in emergency condition. Earliest citation of Mrityunjay Rasa is observed in Rasa Paddhati a book of 13th AD. Following citations have been found in text such as Bhaishajya Ratnavli, Yoga Ratnakar, Rasa Raj Sundar and Rasaratna Samucchay. Other references have been collected from compendium
Bharat bhaishajya ratnakar and are listed below:

| Name of ingredients                     | R.R. S 1 | R.R. S 2 | R.R.S 3 / R.R.S u 1 | B.R. / R.R.Su 2 / D.N. | Y.R. | Ayu. Ve. Pr. / Vr. Y.T / R. Ch | R.R.Su 3 / R.S.K | R.R.Su 4 |
|------------------------------------------|----------|----------|---------------------|------------------------|------|--------------------------------|-------------------|---------|
| Swarna makshik bhasma                    | +        | +        |                     |                        |      |                                |                    |         |
| Shuddha Hartal                           | +        | +        |                     |                        |      |                                |                    |         |
| Shuddha Jaypal                           | +        | +        |                     |                        |      |                                |                    |         |
| Shuddha Vatsanabh                        | +        | +        |                     |                        |      |                                |                    |         |
| Shuddha Manashila                        | +        | +        |                     |                        |      |                                |                    |         |
| Tamra bhasma                             | +        | +        |                     |                        |      |                                |                    |         |
| Shuddha parad                            | +        | +        | +                   | +                      | +    |                                |                    |         |
| Shuddha Gandhak                          | +        | +        | +                   | +                      | +    |                                |                    |         |
| Shuddha tankan                           | +        | +        | +                   | +                      | +    |                                |                    |         |
| Shuddha Dhattura                         |          |          |                     |                        |      |                                |                    | +       |
| Trikatu churna                           | +        | +        | +                   |                        |      |                                |                    | +       |
| Triphala                                 |          |          |                     |                        |      |                                |                    | +       |
| Yasthimadhu churna                       |          |          |                     |                        |      |                                |                    | +       |
| Nisha churna                             |          |          |                     |                        |      |                                |                    | +       |
| Latakaranjabeja                          |          |          |                     |                        |      |                                |                    | +       |
| Rasa sindoor                             |          |          |                     |                        |      |                                |                    | +       |
| Pippali churna                           |          |          |                     |                        |      |                                |                    | +       |
| Abhrak bhasma                            |          |          |                     |                        |      |                                |                    | +       |
| Shuddha Manashila                        |          |          |                     |                        |      |                                |                    | +       |
| Sajjikshar                               |          |          |                     |                        |      |                                |                    | +       |
| Yavakshar                                |          |          |                     |                        |      |                                |                    | +       |
| Panch Lavan                             |          |          |                     |                        |      |                                |                    | +       |
| Shatpushpa                               |          |          |                     |                        |      |                                |                    | +       |
| Swarna bhasma                            |          |          |                     |                        |      |                                |                    | +       |
| Roupya bhasma                            |          |          |                     |                        |      |                                |                    | +       |
| Heerak bhasma                            |          |          |                     |                        |      |                                |                    | +       |
| Shuddha Hingul                           |          |          |                     |                        |      |                                |                    | +       |
Table no. 1. List of Name of Ingredients mentioned in various Rasa Aushadhis text as Mrityunjay Rasa

(R.R.S – Rasaratnasamucchay, R.R.Su – Rasaraj sundar, B.R. – Bhaishajya ratnavali, D.N. – Dhanvantari Nighantu, Y.R. – Yoga Ratnakar, Ayu. Ve. Pr. - Ayurved Prakash, Vr. Y.T- Vriddha Yoga tarangini, R. Ch – Rasendra Chintamani, R.S.K – Ras kamdhenu )

Table no. 2 List of various drugs used for trituration and method of preparation of Mrityunjay Rasa mentioned in various Rasa Aushadhis text

| Sr.no. | Rasa Aushadhis text name | Drug used for trituration | Method of preparation |
|-------|--------------------------|---------------------------|----------------------|
| 1.    | R.R.S 1\[5\]            | Musli Swaras for 1 day    | Kukkut puta          |
| 2.    | R.R.S 2\[6\]            | Chitrak kwath for 1 day   | Bhudhar puta         |
| 3.    | R.R.S 3\[7\] / R.R.Su1\[8\] | -                        | -                    |
| 4.    | B.R.\[9\] / R.R.Su 2\[10\] / D.N.\[11\] | Dharrtur mool swaras    | Kharaliya            |
| 5.    | Y.R.\[12\]              | Bhringaraja swaras       | Kharaliya            |
| 6.    | R.R.Su 3\[13\] / R.S K\[14\] | Musli swaras             | Kharaliya            |
|       |                          | Mushakarni swaras        |                      |
|       |                          | Bijaura nimbu swaras     |                      |
|       |                          | Kadali swaras            |                      |
|       |                          | Kapikacchu swaras        |                      |
| 7.    | R.R.Su 4\[15\]          | Vruddha daaruk patra swaras – for 2 days | Kharaliya |
|       |                          | Udumbar patra swaras – for 2 day | |
|       |                          | Adrak swaras – for 1 day  | |
| 8.    | Ayu. Ve. Pr.\[16\] / Vr. Y.T\[17\] / R. Ch\[18\] | Limbu swaras for trituration for 3 days | Kharaliya |

(R.R.S – Rasaratnasamucchay, R.R.Su – Rasaraj sundar, B.R. – Bhaishajya ratnavali, D.N. – Dhanvantari Nighantu, Y.R. – Yoga Ratnakar, Ayu. Ve. Pr. - Ayurved Prakash, Vr. Y.T- Vriddha Yoga tarangini, R. Ch – Rasendra Chintamani, R.S.K – Ras kamdhenu )

Indication of Mrityunjay Rasa in various diseases –

Various diseases related with the Rasavaha strotas, Shukravaha strotas, etc. are included in the indications. Text like Bhaishajya ratnavali, Rasaratna sammucchay, Rasaraj sundar, Yoga Tarangini have indicated various formulations to be indicated for Jwara (Fever) in the name of Mrityunjay Rasa. Yoga Tarangini mentions the drug under the treatment of Kshaya roga.
(Tuberculosis) while Rasaraj sundar text
indicates the drug with appropriate
anupan in Rajyakshma (Tuberculosis),
Prameha (Diabetes mellitus), Atisaar
(Diarrhoea), Jirna jwar, Sangrahani,
Bahu Mutra and also as Aphrodisiac
medicine. Vriddha yoga tarangini,
Rasendra chintamani, etc indicates
Mrityunjay Rasa as rejuvenating drug.
These indications are given along with
anupaan in the specific dose which are
enlisted in table no.3 according to the
reference of various ayurvedic text.

**Table no.3** List of Matra and various anupan with pathya and Rogadhikar of Mrityunjay Rasa mentioned in various Rasa Aushadhis text

| Sr.no. | Rasa Aushadhis text name | Matra | Anupan | Pathya |
|-------|--------------------------|-------|--------|--------|
| 1.    | R.R.S 1\[5\]             | 6 Ratti (practically only 2 Ratti) | - | dadhi bhojan sevan |
| 2.    | R.R.S 2\[6\]             | -         | - | - |
| 3.    | R.R.S 3\[7\] / R.R.Su 1\[8\] | 5 ratti | Chitrak, Adrak, Saindhav, Trikatu churna | Milk rice |
| 4.    | B.R.\[9\]/ R.R.Su 2\[10\] / D.N.\[11\] | 1 masha | - | - |
| 5.    | Y.R.\[12\]               | 1 masha | - | - |
| 6.    | R.R.Su 3\[13\] / R.S.K\[14\] | 1 Maash (practically used ½ or 1 ratti) | - | - |
| 7.    | R.R.Su 4\[15\]           | 1 ratti | Mishri (sugar) | - |
| 8.    | Ayu. Ve. Pr.\[16\]/ Vr. Y.T\[17\] / R. Ch\[18\] | 1 masha | Ghrut + Madhu | - |

As Bhaishajya ratnavali is most famous and mostly referred ayurvedic classical text used for drug preparation, hence the indications given for Mrityunjay rasa are separately compiled from Bhaishajya ratnavali which is enlisted in Table
### Table no.4 Showing list of ingredients and their uses of Mrityunjay rasa mentioned in Bhaishajya ratnavali

| Dravya Name       | Pharmacological action | Action          | Dosha                        | Indications                                      |
|-------------------|------------------------|-----------------|------------------------------|--------------------------------------------------|
| Vatsanabh¹⁹⁠ Aconitum ferox | Madhur Madhur Ushna | Madhur Tikshna Laghu Vyavayi Vikasi | Vaataghna, Kaphaghna                              | Jwaraghna, Vednasthapak, Shothahar, Hrudayottejak |
| Marich²⁰¹ Piper nigrum | Katu Katu Ushna | Laghu Tikshna | Vaataghna, Kaphaghna, Pittakar | Swedajanan, Agnidipan, Krumighna, Kapha nissarak |
| Pippali²¹¹ Piper longum | Shushka Katu Madhur Anushna | Laghu Snigdha Tikshna | Kaphaghna, Vaatshamak, Pittakar | Vaatkaphaj Jwaraghna, Plia rog, Medhya,Mutral, Yogvahi, Rasayan |
| Gandhak²²¹ Sulphur | Katu-Ushna | Sara |                              | Rasayan, Paachan, Garvishahar, Agnidipan, Kushtaginha |
| Tankan²³¹ Borax | Katu-ushna | Tikshna Ruksha Sarak | Vaataghna Kaphavishlehak | Kaas Shwaas – har, Agnidiptikar, Aadhaman nashan, Mudha Garha pravartak |
| Hingul²⁴¹ Cinnebar |                              | Kaphaapaha Pittagha | Aampachak, Agnivardhak, Jwaraghna, Netra rogarah,Kamla, pliha, Garvish Nashak |
| Jambeer²⁵¹ Citrus acida | Amla Madhur Anushna | Laghu RukshaTikshna | Pittagha Vaatanuloman | Aampachak Agnidipak Visham Jwaraghna |
**Research work**

A research work naming Analytical Evaluation Of Mrityunjaya Rasa published in Journal of Ayurveda and Medical integrated science showed specific characteristics which are in accordance with the properties of Mrityunjay rasa. A research work naming Comparative Evaluation Of Antipyretic Activity Of Two preparations Of Mrityunjaya Rasa (Bhaishajya Ratnavali) In Experimentally Induced Pyrexia In Albino Rats thesis published in RGUHS digital repository was found which proved that the trail drugs, Mrityunjaya rasa (1&2) are having significant role in reducing the pyrexia condition, in artificially induced pyrexia in experimental animals. Another research article titled Antimicrobial study of Mrityunjay rasa published in International Ayurvedic Medical Journal. Antimicrobial activity of Mrityunjaya Rasa was investigated against both gram positive and gram negative bacteria in in-vitro disc and minimum inhibitory concentration methods. The result evidenced the antimicrobial potential of Mrityunjaya Rasa.

**Discussion**

Total 10 references of Mrityunjay Rasa have been mentioned in Rasa Aushadhi compendium and text. Observing closely to each reference suggest that each kalpa contains Dipan, Pachan and Agnivardhan dravyas. All the references given in the text shows that they mainly acts on Annavaha strotasa. In this drug, Aconitum ferox acts as a catalyst for the other medicines. It is used in Tridoshaja vikara, especially in Kapha vataj roga. Vatsanabha (A. ferox Linn.) is indicated in skin diseases, inflammatory diseases, anorexia, cough, bronchitis, fever, pain, rheumatic condition, and as an aphrodisiac also. Maricha is of great value in fevers, more especially as an adjuvant to more active febrifugent agents, the action of which is materially increased by its presence. It is useful in debility of the stomach, and throughout the entire extent of the digestive system exerts a pure stimulant action, and is useful also in fevers where the indications for a stimulant impression exist[]. Pippali acts as rasayan i.e rejuvenator and medhya. It has great action in splenomegaly and intermittent fever. Purified Sulphur is useful in cough, asthma, consumption, general debility, enlargement of the liver and spleen, chronic fevers etc. It is well known medicine for diseases of skin. Gandhak is a stimulant to the secreting organs such as the skin and the bronchial mucous membranes. It has a specific action on the rectum and it increases the haemorrhoidal secretions. Tankan is pungent in taste, hot in nature. It is good for heart and act as antidote for vatsanabh. It is useful in Vata imbalance diseases and used in the treatment of productive cough, bronchitis, wheezing, asthma, chest congestion, etc. It induces menstruation in women suffering with amenorrhea or oligomenorrhea (Scanty menstrual flow). It helps to improve menstrual flow. Hence, it is an important ingredient in Raja pravartini vati—an Ayurvedic medicine used for treating secondary amenorrhea. Hingul acts as Deepana i.e. improves digestion.
strength and Rasayana i.e. anti-aging, causes cell and tissue rejuvenation. It is useful in the treatment of Hrullasa (nausea), Kushta (skin diseases), Jwara (fever), Kamala (Jaundice), Liver diseases, Pleeha (Disease of the spleen), Splenomegaly, Rheumatoid Arthritis, Rheumatic fever, intermittent fever and Filariasis.

Conclusions

It is clear from literature that Mrityunjay Rasa is an emergency drug that is to be used in the systemic disorders such as different type of fever conditions, Diabetes mellitus, Tuberculosis and even as rejuvenator. It also has aphrodisiac properties used with specific anupaan. Thus, it has broad spectrum activity for the management of Kapha Vaataj disorders.

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Gayatri Ashok Jagtap, Gangaprasad Asore, Sachin Sheth

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