

ANALYTICAL STUDY ON RASANJANADI ANJANA – AN AYURVEDIC  
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**ABSTRACT**

*Rasanjanadi Anjana* formulation is mentioned in the *Bhaisajya Ratnavali*, which is an *Ayurvedic* classic text. The drug has been chosen to treat the *Praklinnavartama*(Anterior Blepharitis) a disease of the Vartma(eyelid) which occurs due to the predominance of the *Kaphadosha*. It consists of the nine ingredients with all of them having the property of *Kaphashamana/Kaphagahana*. Keeping in mind the comfortability in using the drug by the patient, the *Anjana* has been converted into the ointment form. After the drug has been prepared it has undertaken through the analytical study to establish the physical or the organoleptic character as well as the chemical nature which includes the pH, heavy metal content and the microbiological test to serve as the supporting literature and to maintain the standard quality of the formulation.

**KEYWORDS:** *Rasanjanadi Anjana, Kaphashamaka.***INTRODUCTION**

*Anjana* is one of the *Kriyakalpa* procedure which is mentioned by the different *Acharyas* in the different *Samhitas*. *Kriyakalpa* are the ocular therapeutics procedures, which are used to treat the different *Netra Rogas*. *Anjana* has also been considered as the part of the *Dincharya* by the different *Acharyas* in their text with the aim of keeping the eyes healthy and free from the disease. *Anjana* according to the 'Medical dictionary' - is known by the term Collyrium which can be defined as the 'medicated lotion' to treat the eye disease. The drug chosen to prepare the formulation i.e the *Anjana*(ointment) consists of the 9 ingredients – *Rasanjana, Sarjarasa, Jatipushpa, Kali maricha, Gairika, Manashila, Samudraphena, Saindhavilavana, Madhu*. These ingredients are *Laghu, Ruksha, Teekshna, Ushna Virya* and *katu vipaka* and hence capable of balancing the *Kaphadosha*. Along with these properties they are also the properties of *lekhana, Ropana, sotharahara* and *krimighana* also. The drug was chosen with the aim of relieving all the *lakshana* of the *Praklinnavartma vyadhi* – which occurs due to the predominance of the *Kaphadosha* and is characterized by the – *shuna*(swelling), *klinna*(congestion), *sarava*(discharge), *kandu*(itching), *toda*(pricking sensation). Keeping all of these effects in the mind the drug was prepared and analyment of the physical and the chemical nature will serve as the reference for the future research work.

**MATERIAL AND METHOD****Aims and Objectives**

1. To analyse the physical or the organoleptic character of the drug.
2. To find out the pH, Heavy metal content and the Microbiological study of the *Rasanjanadi Anjana*(ointment) prepared by the classical and the modified method.

Collection of the raw material: – All of the ingredients in the raw form were taken from the HANS PHARMACY , SIDCUL, HARIDWAR (UTTARAKHAND) except the *Jatipushpa* which were taken from the flower shop. After that all of these ingredients were got verified from the *Dravyaguna* and the *Rasashastra* department. All of these were taken in the amount of the 50gm each.

Method of preparation :- All of these were converted into the powder from before that some of these such as *Rasanjana* was kept in the dryer for the 5 days , got dried and then was taken out. *Jatipushpa* was also kept in the sunlight for the 5 days and then also kept into the drier for the 2 days and then got dried and were taken out. After that all of these ingredients along with the *Rasanjana* and the *Jatipushpa* except the Honey were taken to the grinding and the filtering department of the HANA PHARMACY and then here all of these were grinded into the grinding machine and after that for filtering these were led to pass via the 100 micron mesh size. The same process was repeated for the 3 times. After that all of these ingredients along with the Honey

which was also taken from the HANS PHARMACY were taken to the PHARMACY LAB and then firstly a sample of 100gm was first manufactured with taking all of the ingredients in the quantity of the 10gm i.e into the equal amount as mentioned in the text, in 200ml of beaker and were mixed by using a spatula. Then all of these were again filtered via a 400 micron mesh. After

that taking the honey as the base was also added 10gm in the preparation of the ointment. In the last 10gm petroleum jelly was also added. Then the mixture was heated at a temperature of the 60degree C. Further it was again mixed using the spatula in the beaker and then kept at the room temperature for the one day.

Drug	Latin Name	Family	Usage form	Ratio
<i>Rasanjana</i>	<i>Berberis aristata</i>	<i>Berberidaceae</i>	Powder prepared from the root of the Daruharidra	10gm
<i>Sarjarasa</i>	<i>Shorea robusta</i>	<i>Dipterocarpeae</i>	<i>Niryasa</i>	10gm
<i>Jatipushpa</i>	<i>Jasminum officinale</i>	<i>Oleaceae</i>	Flower	10gm
<i>Kalimaricha</i>	<i>Piper nigrum</i>	<i>Piperaceae</i>	Fruit	10gm
<i>Gairika(HaematiteFe<sub>2</sub>O<sub>3</sub>)</i>	-	-	Dry powder	10gm
<i>Manashila(Red Arsenic As<sub>2</sub>S<sub>2</sub>)</i>	-	-	Dry powder	10gm
<i>Samudraphena(Cuttle fish bone)</i>	-	-	Dry powder	10gm
<i>Saindhaiva lavana(Rock salt)</i>	-	-	Dry powder	10gm
<i>Madhu</i>	-	-	In natural form	10gm

**Analytical study:-** The prepared final product i.e the *Rasanjanadi Anjana* was analyzed by employing the various analytical parameters. The analytical study was carried out in the DN Laboratory, Panchkula(Haryana).

Physical characteristics description or the organoleptic character – Sensory character like color, odour were carefully noted down.

<b>APPEARENCE</b>	Paste like
<b>COLOR</b>	Reddish brown
<b>ODOUR</b>	Characteristic

Chemical characteristics – PH – 5.72 which is slightly acidic.

- 1.Spreadibility – Complies.
- 2.Heavy metals.

Arsenic – <3ppm (Limit NMT 3ppm)  
Lead – < 10ppm (Limit NMT 10ppm)  
Mercury – < 1ppm (Limit NMT 1ppm)  
Cadmium – < 0.3 ppm (Limit NMT 0.3ppm)

### 3.Microbiological test

Total aerobic Microbial count – 459cfu/gm(Limit NMT 10<sup>5</sup>/gm)  
Yeast and Moulds – Complies(Limit NMT 5 x 10<sup>2</sup>/gm)  
E. coli – Absent (Should be absent)  
Salmonella - Absent (Should be absent)  
Total coliform - Absent (Should be absent)

## RESULT AND DISCUSSION

The pharmacological analysis of the drug was prepared on the final form of the drug i.e the *Rasanjanaadi Anjana*(ointment). The analytical study carried deals

with both the physical and the chemical properties of the drug prepared . All the values found were in their normal limits as described in the Ayurvedic Pharmacopoeia of India (API)indicating the drug to be safe for using on the *Vartma* (anterior part of the eyelids) in the *Praklinnavartma Vyadhi*.



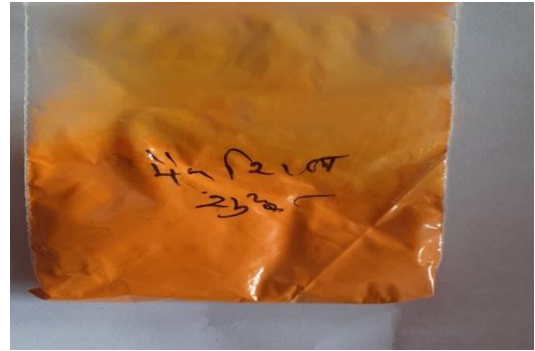
*Rasanjana*



*Daruharidra*



*Sarjarasa*



*Manashila*



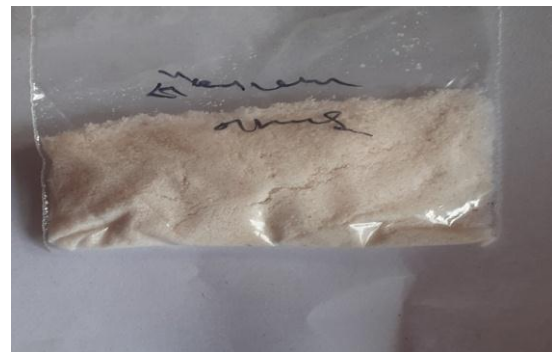
*Jatipushpa*



*Samudraphena*



*Kalimiracha*



*Saindhavalavana*



*Gairik*



*Madhu*

**CONCLUSION**

For the first time the pharmaceutical and the analytical profile of the *Rasanjanadi Anjana* was established. On the basis of the analytical study carried, this study may

be used as reference standard in further quality control drug study. This result of the drug prepared can be used as trail for the further development of the Ayurvedic formulation.