MATERIALS AND METHODS

The Study is done under following two heads-

1. Critical study
2. Clinical work

1. Critical study –

This is again studied under following heads.

   A. Review of work done by other research scholars regarding the topic.

   B. Conceptual study.

   C. Critical study of Niruha Gana Dravya.

A. Review of work done by other research scholars regarding the topic-

   The work done by other research scholars regarding Rajonasha&Basti was reviewed.

B. Conceptual study-

   The study of concept of Raja &Rajonasha was studied from Bruhattarayee with their available commentaries regarding the topic was done here.

Method used-

1. The Concept of Raja in general was studied.

2. The concept of Rajonasha in specific was studied & its importance was listed as per classics.

3. Chikitsa available for Rajonasha in Bruhattarayee was studied.

C. Critical study of Niruha Gana-

Method used-

- Properties of the Niruha Gana Dravya according to Dravyagunatmaka aspect were compiled by using Bhavprakash.

- Detailed information of Niruha Gana Dravya as botanical name, family, distribution & propagation, parts used, description, species, contravercies, formulations was complied.
• Compilation of the references of NiruhaGana Dravya was done by using Bruhattrayee as Dravya, reference, topic & description.
• Depending on the above compilation tabulised summary was made of the Dravya as Shodhana, Shamana & Aahara references. Observations were made on that basis.
• Reason or thinking behind inclusion of Madana, Kutaja, Kushtha etc. Dravya in Niruha Gana was tried to explain by using Bruhattrayee references.
• By looking at the properties, Dravya were tried to catagarised on the basis of their action on body by Niruha Basti.
• Probable protocol was tried to make to use the Dravya in Niruha by taking into consideration the Doshaghnata, Vyadhighnata, properties & Prabhava of Dravya.

2. Material & Method for clinical study-

A. Case record form (CRF)-

a. Case record form was prepared to perform the clinical work.

b. Material-

The proforma in the CRF was prepared by taking into consideration the textual references from Bruhattrayee. The CRF was related to the complains of individual, duration, gradation, severity, any treatment taken for the same, Kulavrutta, SarvadehikaParikshan, IndriyaParikshana, SrotasParikshana, Raja Pravruttitihas, Prasavitihas etc. Detailed observation tables for the Kalabasti treatment & observations found before & after Basti treatment were made. The proforma of the CRF is given later.

c. Volunteers-

• Sample size of 45 was taken for study.
• Three different groups containing 15 patients each made for each Dravya.
• Out of the total three NiruhaDravya, one particular Dravya was allocated to one group that is –
  ➢ First group (A) has received KutajaNiruha.
  ➢ Second group (B) has received DevdaraNiruha.
  ➢ Third group (C) has received YashtimadhuNiruha.
d. **Inclusion criteria**-

- Females with age group 12-40 yrs.
- Patient having amenorrhea from minimum 2-3 months.
- Patients with secondary amenorrhea.

e. **Exclusion criteria**-

- Patients with primary amenorrhea.
- Post-menopausal patients.
- Lactating females.
- Pregnancy.
- Hysterectomy

**Material used for clinical work**-

As Niruha Basti contains Madhu, Lavana, Tail,Kalka &Kwatha. Following material was used for study:

- Kutajaphala (Holarrhena antidysenetrica)
- Devdarakashtha (Cedras deodara)
- Yashtimadhumula (Glycyrrhiza glabra)
- Til tail (Sesame oil)
- Madhu
- Saindhav (Sodiichloridium)

**Equipments**-

- For Basti –
  - Enema pot
  - Rubber catheter
  - Metal syringe etc.
- For examination like measuring tape etc.

**Method used for clinical work**-

Study design- Open labeled observational study.

- Procurement of raw material was done from local market.
- Authentication of raw material was done from Agharkar Research Institute Pune.
- Standardization of following was done as per API norms-
  - Kutajakwath
  - Devdarakwath
  - Yashtimadhukwath
  - Til tail
  - Saindhav
  - Madhu
  - Yashtimadhuchurna
  - Kutajchurna
  - Devdarchurna
- Pharmacognostic and phytochemical analysis was done as per API.
- As continuous Niruha Basti could lead to Vataprapkop it was decided to give Kalabasti Krama which contains both Niruha & Anuvasana Basti so that there won’t be Vataprapkopa. Kalabasti Krama was given to each group by the selected NiruhaDravya for 15 days as follows-

(A) Schedule of Kala Basti

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N=NiruhaBasti
A= Anuvasana Basti

- For AnuvasanaBasti Til Tail was used in dose of 120ml.
For NiruhaBasti Kwath of NiruhaDravya was made, NiruhaDravya itself was used as Kalkadravya. The constitution of NiruhaBasti was done as follows:

- Kwath - 400 ml
- Kalka - 120 ml
- Til Tail - 240 ml
- Makshika - 160 gm
- Saindhava - 10 gm

Total dose of 960 ml was used for NiruhaBasti and Basti was given as per textual method as:

11 अथास्यनेत्रंप्रणयेत्स्स्नग्धेत्सस्नग्धमुखंगुदे।
उच्चच्छवास्यबस्तेववदनेबध्देहस्तमकम्भन्॥
पृष्ठवंशप्रतिततोन्तातिदुतिविदमितलम्।
नातिवेगान्वान्दस्कृदेवप्रपीड़येत॥

सावशेषचकुवीतवायु: शैष्ठिलितष्ठिति।\(A.H. १९/२५-२६\)

1. Patient posture: Left lateral position with lower extremity flexed on knee and hip joint.

2. Olenation of Anus: Tila Taila is applied locally in Gudamarga and in Basti also.

3. The patient is to take a deep breath while the Basti and Basti – Aushadhi are introduced.

4. Shivering of the hands be avoided as it may produce Gudakshata or anal injury.

5. Quicker insertion of Basti be avoided.

6. Too slow induction of Bastibe also avoided.

7. Opening of the Basti -Netra should be kept straight.
8. The total Basti drug should not be introduced in the Pakwashaya in order to avoid entrance of Vayu into the Pakwashayawhich may produce pain.

9. Basti tube should be immediately pulled out after introduction of the drugs.

10. Patient should remain lying in the same posture upto ½ minute after introduction of Basti.

11. After that the patient should taken up Utkatakasana to eliminate the mala Vegas.
   - If patient was on any other treatment for same compliant washout period of 8 days was taken before starting of Kalabastikrama.
   - Follow up of the patient taken upto one month after Basti treatment to check whether patient has shown Rajapravartana.

**Study Evaluation**

Assessment of patients was done on the basis whether they have shown Rajodarshan after Basti treatment & if yes then in how much time period.

**Observations**

Examination of each patient including all clinical signs and symptoms and physical examination was done and observations were noted in case record form

**Discussion**

With the help of critical and fundamental study and data obtained from observational clinical study appropriate discussion was done.

**Statistical Analysis**

The information gathered on the basis of observations made about various parameters, was taken for statistical analysis. For the assessment of significance paired t test was applied.

**Conclusion**

Depending on the statistical analysis conclusion was drawn.