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Research Article

TO STUDY THE EFFICACY OF *DRAKSHADI PANAKA* IN *PITTAJ MADATYAYA*

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ABSTRACT

Background: In today's modern and fast moving, hectic life style the common man has no time to take care of his health. People are habituated to various bad habits such as alcohol, smoking, tobacco chewing etc. of these, alcoholism is the most commonly occurring addiction that affects not only the physical and mental status of an individual but also his family and social life.

Aim: To study the efficacy of *Drakshadi Panaka* in *Pittaj Madatyaya*.

Methodology: Selected 40 patients for the clinical trials were divided into 2 groups. The signs and symptoms of *Madatyaya* described by the classics were used as the tools for assessment of the variables.

Conclusion: On the basis of the observations of symptoms it can be said that the trial drug was clinically effective and found to be statistically. *Drakshadi Panaka* is easy to prepare, administer, palatable and cost effective. *Drakshadi Panaka* is one of the *kalpas* which is elicited in the specific treatment of *Pittaj Madatyaya*. It was statistically significant in reducing alkaline phosphate levels

Keywords: *Madatyaya*, Alcoholism, *Drakshadi Panaka*, *De-addiction*

INTRODUCTION

In today's modern and fast moving, hectic life style the common man has no time to take care of his health. People are habituated to various bad habits such as alcohol, smoking, tobacco chewing etc. of these, alcoholism is the most commonly occurring addiction that affects not only the physical and mental status of an individual but also his family and social life. Alcohol addiction is simply defined as a compulsive need for an intoxicating liquid. The person craves alcohol and cannot limit or control his or her drinking. These liquids include beer, wine and other hard liquors. If a person experiences withdrawal symptoms such as nausea, sweating, shakiness or anxiety when alcohol consumption has ceased or if there is intense desire to drink greater amounts of alcohol in order to feel him high, that person can be identified as 'Alcohol Addict'.

Alcoholism is a disease condition manifested by long term consumption of alcohol. It has been defined as a chronic behavioral disease characterized by drinking of alcohol to an extent that it interferes with the drinker's health, social relationship and economic stability. Alcoholism has the following characteristics

1. Chronicity and progressivity.

2. Tolerance
3. Physical dependence
4. Pathologic organ changes
5. Social, emotional and behavioral symptoms.

Considering the above fatalities, Alcohol better known as '*Madya*' in the classics, can be compared to a poison or '*Visha*'. In fact '*Madya*' and '*Visha*' have similar properties. Besides *Madya* has opposite properties to that of '*Oja*' and hence it contradicts the 10 properties of *Oja* by its 10 properties and results ultimately in *Ojakshaya*.

Madya shows 10 *Guna* i.e. *Tikshna*, *Ushna*, *Ruksha*, *Sukshma*, *Amla*, *Vyavayi*, *Ashukari*, *Laghu*, *Vikasi* and *Vishada*¹. On the other hand, *Visha Guna* are *Laghu*, *Ruksha*, *Ashukari*, *Vishada*, *Vyavayi*, *Tikshna*, *Vikasi*, *Sukshma*, *Ushna*, and *Anirdeshy Rasa*². Both these *Guna* are opposite to those of *Oja* and hence *Madya* is appropriately termed as '*Visha*'. It's *Atiyoga* can lead to disastrous results (*Madatyaya*).

They are of 3 types of *Madatyaya*. 1) *Vataj*, 2) *Pittaj*, and 3) *Kaphaj*. Of these, *Pittaj Madatyaya* has been characterized with symptoms like *Trishna*, *Daha*, *Jwara*, *Sweda*, *Murcha*, *Atisar* etc³.

Drakshadi Panaka is one of the *Kalpas* which is elicited in the specific treatment of *Pittaj Madatyaya*⁴.

AIM AND OBJECTIVES:

1. To observe the management of *Pittaj Madatyaya* with *Drakshadi Panaka*.
2. To evaluate the effect of *Drakshadi Panaka* in *Pittaj Madatyaya* by conducting clinical trials and record the other effects if any during the same.
3. To create an awareness among the patients about the hazards of *Madatyaya*.

METHODOLOGY:**Type of Study:-**

Clinical, Randomized single blind method, Patients were observed before and after treatment.

Selection of Patients:

A special proforma of case paper with consent was designed to collect and record the information, verbally reported by the patients. Here, the signs and symptoms of *Madatyaya* described by the classics were used as the tools for assessment

of the variables. Selected 40 patients for the clinical trials were divided into 2 groups.

GROUP A: Control Group:-

20 patients were included in this group with Daily regimen.

GROUP B: Trial Group:-

20 patients were included in this group with Daily regimen. They were given the trial drug as per the following dosage Schedule,

DOSAGE SCHEDULE:

Sevan Kala: *Antarbhakta (Pittaj kala)*. In between 2 meals.

Matra: 80 ml (as per *Matra* of *Hima kalpana*)

Duration: For 4 weeks (28 days)

Follow ups were taken on 7th, 14th, 21st and 28th day respectively.

PHARMACODYNAMICS OF DRUG⁵:**Table 1: Pharmacodynamics of drugs**

| Drug | Rasa | Guna | Virya | Vipaka | Doshagnata |
|--|--|--|---|----------------------|--|
| <i>Draksha (Vinifera Linn.)</i> | <i>Madhura.</i> | <i>Snigdha, Guru, Mridu.</i> | <i>Shita</i> | <i>Madhura</i> | <i>Vata Pitta Shamaka</i> |
| <i>Dadim (Punica Granatum Linn.)</i> | <i>Kashaya, Madhura, Amla</i> | <i>Laghu, Snigdha</i> | <i>Anushna</i> | <i>Madhura, Amla</i> | <i>Madhura-Tridoshagna, Amla-Kapha Vata Shamak.</i> |
| <i>Matulung (Citrus Medica Linn.)</i> | <i>Madhura, Amla</i> | <i>Laghu, Snigdha</i> | <i>Shita (Madhura) & Ushna (Amla)</i> | <i>Madhura, Amla</i> | <i>Madhura Type-Vata-Pitta Shamak, Amla Type-Kapha Vatashamak.</i> |
| <i>Kapittha (Limonia Acidissima Linn.)</i> | <i>Pakwa- Amla-Kashaya, Apakwa -Kashya</i> | <i>Laghu, Snigdha (Madhura) & Tikshna (Amla)</i> | <i>Shita</i> | <i>Katu</i> | <i>Pakwa- Vata-Pitta Shamak</i> |

PREPARATION:**Table 2: Ingredient of *Drakshadi Panaka***

| No. | Ingredient | Form of drug in preparation | Quantity 80 ml |
|------------|-------------------|------------------------------------|-----------------------|
| 1 | <i>Draksha</i> | <i>Swarasa</i> | 20 ml |
| 2 | <i>Kapittha</i> | <i>Swarasa</i> | 20 ml |
| 3 | <i>Dadim</i> | <i>Swarasa</i> | 20 ml |
| 4 | <i>Matulunga</i> | <i>Swarasa</i> | 20 ml |
| 5 | <i>Madhu</i> | Fresh Agmark Honey | 10 gm |

Preparation of the formulation was done as per the reference from *Charak, Chikitsasthana 24/130* and standard method quoted for '*Phanta Kalpana*' in *Sharangadhar Samhita*⁶.

Panaka is prepared by immersing the fruits in 4 times of cold water and rubbed with hands and filtered. It may be considered as *Upkalpana* of *Himakalpana*.

STATEMENT OF LIMITATION**Inclusion criteria:**

1. Age group of 18 yrs and above, of Male sex only.
2. Patients of *Pittaj Madatyaya* i.e. those showing a minimum of 70% *Pitta pradhan Lakshana*.

Exclusion criteria:

1. Age below 18 yrs.
2. Female patients.
3. Patients with high risk diseases e.g. severe jaundice, ascites.
4. Hypertensive patients with B.P more than 140/90 mm of Hg.

5. Cardiac disorders like IHD, cardiogenic shock, CAD, infective endocarditis.
6. Severe stage of liver cirrhosis, acute hepatitis, liver tumors etc.

PARAMETER OF ASSESSMENT

Table 3: Parameter of assessment

| GRADATION INDEX | |
|--|---|
| <i>Trishna</i> | 1 – <i>Ishat Trishna</i> 2 – <i>Muhurmuhu Trishna</i> 3 – <i>Satat Trishna – Jalasevanottar Samadhan</i> 4 – <i>Satat Trishna – Jalasevanottar Asamadhan</i> |
| <i>Daha</i> (<i>Prashna pariksha</i>) | 0 - No assessed 1 - Yes |
| <i>Jwara</i> | 1 - 99-100 degree F 2 - 101-102 degree F 3 - 103-104 degree F 4 - 104 degree F + |
| <i>Sweda</i> | 1 - <i>Kapala and Shirapradesh swedopatti</i> 2 - <i>Kaksha and Janghapradesh swedopatti</i> 3 – <i>Sarwanga swedopatti</i> 4 – <i>Sarwanga swedopatti with sarwanga vastra ardrata</i> |
| <i>Murcha</i> | 1 – Occasionally 2 – Frequently 3 - Often with short disorientation 4 - More often with prolonged disorientation |
| <i>Nidra</i> | 1 – <i>Kalantaren Nidra</i> for approx 5-6 hrs at a stretch. 2 – <i>Khandit Nidra</i> for approx 2-3 hrs at a stretch and total approx 4-5 hrs. 3 – <i>Khandit Nidra</i> approx 3-4 hrs followed by <i>Anidra</i> 4 – <i>Anidra</i> or hardly 1-2 hrs. |
| <i>Vaman</i> | 1 - 1-2 vega 2 - 2-3 vega 3 - 3-5 vega 4 - 5 or more vega |
| <i>Atisar</i> | 1 - 1 to 3 vega/day 2 - 4 to 6 vega/day 3 – 7 to 10 vega/day 4 - above 11 vegas |
| <i>Bhrama</i> | 1 – <i>Kwachit Bhrama</i> 2 - <i>Cheshta-paschat Bhramautpatti</i> 3 – <i>Nirantar Bhrama apitu Asanasthiti sthirata</i> 4 – <i>Nirantar Bhrama apitu Asanasthiti Asthirata</i> |
| <i>Mukhashosha</i> | 0 - No 1 - Yes |
| <i>Netraraktata</i> | 0 – No 1 - Yes |
| <i>Netrapitata</i> | 0 – No 1 - Yes |
| <i>Pralap</i> | 1 - Relevant talk with 5-10 words per minute 2 - Relevant talk with 10-15 words per minute 3 - Relevant talk with 15-20 words per minute 4 - Irrelevant talk |
| <i>Kampa</i> | 1 – Occasionally 2 – Frequently 3 - Often with short duration. 4 - More often with prolonged duration. |
| <i>Shira shula</i> | 0 – No 1 - Yes |
| <i>Aruchi</i> | 0 – No 1 - Yes |

STATISTICAL ANALYSIS

Data analysis consisted of two parts, first part to describe the characteristic of the study subjects by using descriptive methods viz. general points like age, *Prakruti*, Alcohol type & quantity, etc. second part consisted of comparisons of pre treatment measurements of the outcome with that of post treatment measurements Wilcoxon sign rank test (Equivalent

to paired t-test) was used. For results in between groups, Mann-Whitney test (Equivalent to paired t-test) was used. For investigations, calculating results within groups before and after treatment Paired t-test was used where as for results in between groups Unpaired t-test was used.

OBSERVATION:**Incidence of Age****Table 4: Age wise distribution**

| Age | Group A | | Group B | |
|----------|------------|----|------------|----|
| | No. of pt. | % | No. of pt. | % |
| 18 – 30 | 2 | 10 | 3 | 15 |
| 31 – 40 | 12 | 60 | 7 | 35 |
| 41 – 50 | 4 | 20 | 7 | 35 |
| 51 – 60 | 2 | 10 | 2 | 10 |
| Above 61 | 0 | 0 | 1 | 5 |

Incidence of *Prakruti***Table 5: *Prakruti* wise distribution**

| <i>Prakruti</i> | Group A | | Group B | |
|---------------------------|-----------|-----------|-----------|-----------|
| | No. of pt | % | No. of pt | % |
| <i>Vataj</i> | 6 | 30 | 4 | 20 |
| <i>Vata Pittaj</i> | 13 | 65 | 15 | 75 |
| <i>Vata Kaphaj</i> | 1 | 5 | 1 | 5 |

Incidence of type of Alcohol**Table 6: Type of Alcohol**

| Type of Alcohol | Group A | | Group B | |
|-----------------|-----------|-----------|-----------|-----------|
| | No. of pt | % | No. of pt | % |
| Whisky | 8 | 40 | 2 | 10 |
| Brandy | 0 | 0 | 0 | 0 |
| Rum | 0 | 0 | 0 | 0 |
| Vodka | 4 | 20 | 5 | 25 |
| Mixed | 6 | 30 | 9 | 45 |
| Country liq. | 2 | 10 | 4 | 20 |

Incidence of Quantity of Alcohol**Table 7: Quantity wise distribution**

| Quantity | Group A | | Group B | |
|--------------|------------|-----------|------------|-----------|
| | No. of pt. | % | No. of pt. | % |
| 180 – 360 | 0 | 0 | 0 | 0 |
| 360 – 540 | 1 | 5 | 4 | 20 |
| 540 – 720 | 2 | 10 | 5 | 25 |
| 720 + | 17 | 85 | 11 | 55 |

Incidence of Frequency of Alcohol**Table 8: Frequency of Alcohol**

| Frequency | Group A | | Group B | |
|--------------------|------------|-----------|------------|-----------|
| | No. of pt. | % | No. of pt. | % |
| 1 - 2 times | 1 | 5 | 1 | 5 |
| 2 - 3 times | 15 | 75 | 15 | 75 |
| 3 - 4 times | 3 | 15 | 2 | 10 |
| Round the clock | 1 | 5 | 2 | 10 |

Incidence of Duration of Alcohol Consumption

Table 9: Incidence of Duration of Alcohol Consumption

| Duration | Group A | | Group B | |
|--------------------|------------|-----------|------------|-----------|
| | No. of pt. | % | No. of pt. | % |
| 1- 5yrs | 0 | 0 | 0 | 0 |
| 6 – 10 yrs | 4 | 20 | 4 | 20 |
| 11 – 15 yrs | 7 | 35 | 7 | 35 |
| 16 – 20 yrs | 4 | 20 | 3 | 15 |
| 21 – 25 yrs | 5 | 25 | 5 | 25 |
| 26 & above | 0 | 0 | 1 | 5 |

Incidence of Food with Alcohol

Table 10: Incidence of Food with Alcohol

| Food | Group A | | Group B | |
|------------------|------------|-----------|------------|-----------|
| | No. of pt. | % | No. of pt. | % |
| With food | 16 | 80 | 15 | 75 |
| Without food | 4 | 20 | 5 | 25 |

SUBJECTIVE PARAMETERS

Table 11: Statistical Analysis between Control and Trial Group

| Symptom | Group | Median grade at | | | | |
|---------------------|---------------|-----------------|-------|--------|--------|--------|
| | | Day 0 | Day 7 | Day 14 | Day 21 | Day 28 |
| <i>Trishna</i> | Study group | 1.5 | 1 | 1 | 0.5 | 0.5 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 0.799 | 0.989 | 0.841 | 0.883 | 0.968 |
| <i>Daha</i> | Study group | 2.5 | 2 | 2 | 2 | 1 |
| | Control group | 2.5 | 2 | 2 | 1.5 | 1 |
| | p-value | 0.904 | 0.883 | 0.478 | 0.799 | 1.000 |
| <i>Jwara</i> | Study group | 2 | 2 | 1.5 | 1 | 0.5 |
| | Control group | 1 | 1 | 0.5 | 0.5 | 0.5 |
| | p-value | 0.925 | 0.925 | 0.398 | 0.698 | 0.799 |
| <i>Sweda</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 0.968 | 0.883 | 0.925 | 0.947 | 0.925 |
| <i>Murcha</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 0.904 | 0.841 | 0.904 | 0.820 | 0.640 |
| <i>Atisar</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 1.000 | 1.000 | 1.000 | 0.947 | 0.947 |
| <i>Nidra</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| <i>Netraraktata</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 0.820 | 0.820 | 1.000 | 1.000 | 0.841 |
| <i>Netrapitata</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 0.799 | 0.799 | 0.779 | 0.799 | 0.799 |
| <i>Mukhashosha</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 0.799 | 0.820 | 0.820 | 0.799 | 0.820 |
| <i>Pralap</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |

| | | | | | | |
|--------------------|---------------|-------|-------|-------|-------|-------|
| | p-value | 0.820 | 0.799 | 0.758 | 0.799 | 0.799 |
| <i>Bhrama</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 1.000 | 1.000 | 0.968 | 0.968 | 0.925 |
| <i>Vaman</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 0.947 | 1.000 | 0.799 | 0.904 | 0.904 |
| <i>Aruchi</i> | Study group | 2 | 2 | 2 | 1.5 | 1 |
| | Control group | 3 | 3 | 2 | 2 | 2 |
| | p-value | 0.383 | 0.369 | 0.242 | 0.678 | 0.583 |
| <i>Kampa</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 0.879 | 0.813 | 0.813 | 0.857 | 0.857 |
| <i>Shira shula</i> | Study group | 0 | 0 | 0 | 0 | 0 |
| | Control group | 0 | 0 | 0 | 0 | 0 |
| | p-value | 0.792 | 0.857 | 0.835 | 0.749 | 0.813 |

By using Mann-Whitney test p-value > 0.05 therefore there is no significant difference between control group and study group at day 0, day 7, day 14, day 21 and day 28 with respect to all symptoms.

Comparison of before-after values in Control and Trial group of investigations - Hb and LFT

Graph no 1: Comparison of before-after values in Control and Trial group of investigations

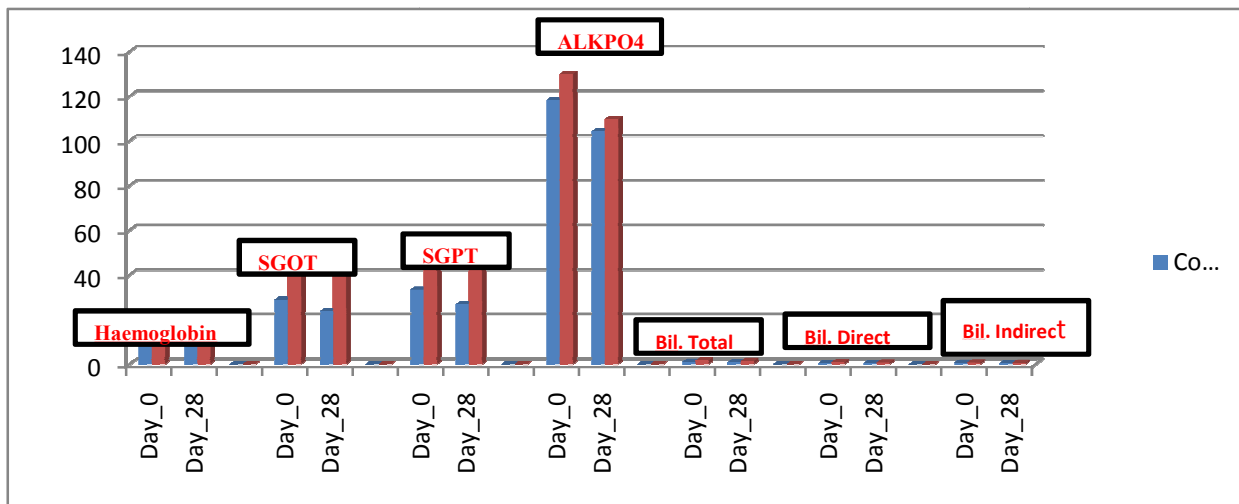


Table 12: Objective parameter

| Objective parameter | Day 0 | | Day 28 | | Paired Test | P Value | |
|---------------------|---------|--------|--------|---------|-------------|---------|-----------|
| | Total | Mean | SD | Mean | | | SD |
| Hemoglobin | Total | 11.4 | 1.8649 | 11.6250 | 1.619 | 1.939 | 0.068 NS |
| | Control | 12.88 | 1.534 | 12.68 | 1.78 | 0.706 | 0.489 |
| Bil Total | Total | 1.772 | 0.94 | 1.56 | 0.696 | 1.90 | 0.072 NS |
| | Control | 1.14 | 0.622 | 1.06 | 0.55 | 0.83 | 0.415 NS |
| Bil Direct | Total | 0.95 | 0.67 | 0.79 | 0.433 | 1.597 | 0.127 NS |
| | Control | 0.472 | 0.246 | 0.46 | 0.254 | 0.210 | 0.836 NS |
| Bil Indirect | Total | 0.787 | 0.358 | 0.710 | 0.2918 | 1.82 | 0.085 NS |
| | Control | 0.699 | 0.40 | 0.57 | 0.298 | 1.931 | 0.069 NS |
| SGPT | Total | 56.8 | 26.69 | 54.3 | 24.48 | 1.195 | 0.247 NS |
| | Control | 33.45 | 14.84 | 27 | 13.33 | 1.802 | 0.087 NS |
| SGOT | Total | 51.0 | 21.39 | 48 | 20.13 | 1.74 | 0.098 NS |
| | Control | 28.9 | 12.91 | 23.85 | 12.17 | 1.770 | 0.091 NS |
| AlkPhos | Total | 130.05 | 45.53 | 109.85 | 34.33 | 3.504 | 0.002 Sig |
| | Control | 118.35 | 39.27 | 104.40 | 19.77 | 1.42 | 0.172 Sig |

DISCUSSION

Discussion on observation

Table 4 shows more incidence of age in 31-40 years of age group in both groups. This is the age group of working class which currently leads a stressful life thus increasing the incidence of addiction. It may also be due to Vata-Pitta predominance in this age group.

The table 5 showing the incidence of *Prakruti* with 65% people of *Pitta-vata Prakruti* included in control and 75% in trial group, this being my primary inclusion criteria.

Table 6 indicates the incidence of whisky consumed by people was more i.e. 40% in control group and 55% in trial group consuming mixed type of alcohol. Mixed type of alcohol means 2 or more types of alcohol i.e. whisky, brandy, rum, vodka, country liquor etc. combined and intake.

Table 7 reveals that occurrence of quantity of alcohol is 85% i.e. people consumed more than 720 ml of alcohol in control group and 55% in trial group. Table 8 shows the incidence of frequency of alcohol to be 75%, in both control and trial group consuming alcohol 2-3 times a day.

With the help of table 9 we can say that 35% of people in both control as well as trial group consuming alcohol since 11-15 years thus attributing to severity in grades.

In table 10, 80% of people consume alcohol with food in control group and 75% in trial group, pointing to the absorbance on a fully or partially full stomach.

Discussion on symptoms

Trishna:

Considering the *Trishna lakshana*, of the control group 45% patients showed a grade 3 severity that was reduced by day 28 to grade 2 in 40% patients and grade 1 in 10% patients. However, in the trial group 50% patients of grade 3 showed a reduction to grade 2 in 35% and grade 1 in 15% patients by day 28. This indicates that the medication reduced the severity of the *lakshana* to some extent and earlier.

Daha:

In context of the *Daha lakshana*, of the control group 50% patients showed a grade 3 severity in both groups of which in control group it was reduced by day 28 to grade 1 in 20% patients and in trial 30% patients shown reduction to grade 1. This shows that the medication reduced the severity of the *lakshana* marginally greater in trial group.

Jwara:

If we observe the *Jwara lakshana*, of the control group 40% patients showed a grade 3 severity that was reduced by day 28 to grade 1 in 30% patients. On the other hand, in the trial group of 30 % showing grade 3 severities, it was reduced to grade 1 in 20% patients. This indicates that the medication reduced the same severity of the *lakshana* in both groups.

Murcha:

From the *Murcha lakshana* point of view, in the control group 30% patients showed a grade 2 severity that was reduced by day 14 in 20% patients to grade 1. However, in the trial group it was reduced by day 7 that means in trial group the symptom was reduced earlier as compared to control.

Pralap:

Considering the *Pralap lakshana*, of the control group 20% patients showed a grade 2 severity that was decreased to grade

1 by day 28 in all patients. Whereas, in the trial group 30% patients showing grade 2 severity reduced to grade 1 in all patients by day 28. This implies that the medication reduced the same severity of the *lakshana* in trial group as compared to control group.

Vaman:

The *Vaman lakshana*, of the control group 25% patients showed a grade 2 severity that was decreased by day 21 in all patients. At the same time, in the trial group 25% patients of grade 2 showed a reduction of 100% by day 28. This indicates that the reduction of the symptom was earlier in control group as compared to trial.

Netraraktata:

Next the *Netraraktata lakshana*, of the control group 40% patients showed a grade 2 severity that was reduced by day 28 in 25% patients to grade 2 and 10% patients to grade 1. But, in the trial group 35% patients of grade 3 and 5% patients of grade 4 showed an *upashaya* of 100% in 20% patients by day 28. This indicates that the medication decreased the severity of the *lakshana* within a lesser time period in trial group.

Atisar:

With reference to the *Atisar lakshana*, of the control group 20% patients showed a grade 3 severity that was reduced by day 21 in all patients to grade 1. However, in the trial group 30 % patients showing grade 3 severity was reduced to grade 1 by day 28. This indicates that the reduction of symptom was earlier in control group as compared to trial (1 week earlier).

Sweda:

Taking into consideration the *Sweda lakshana* of the control group 15% patients showed grade 3 *sweda lakshana* which was not reduced by day 7 in any patients. On the other hand, in the trial group all patient's showing *Sweda lakshana* grade 3 showed a reduction to grade 2 by day 7. This implies that the medication decreased the same severity of the *lakshana* within a lesser time period signifying drug efficacy.

Netrapitata:

Considering the above *lakshana*, of the control group 5% patients showed grade 3 severity *lakshana* which was reduced by day 28 in all patients to grade 2. However, in the trial group 10% patient's grade 3 severity *lakshana* showed a reduction to grade 1 in half of the patients by day 28. This indicates that the medication reduced the severity of the *lakshana* to more extent and earlier in trial group (1 week earlier).

Mukhashosha:

In *Mukhashosha lakshana*, of the control group and trial group, 20% patients showed a grade 2 severity that reduced to grade 1 in half of patients in both groups till day 28. This indicates that the medication decreased the same severity of the *lakshana*.

Bhrama:

Considering the *lakshana Bhrama* both in control and trial group 10% patients showed grade 3 severity and 10 % showed grade 2 severity which by 21 day was reduced to grade 1 in trial group and not in trial group. This suggests that reduction of severity of symptom was earlier in trial group.

Kampa:-

In *Kampa lakshana* 20 % patients showing grade 3 severity was reduced to grade 2 till day 28 whereas in trial group it was

reduced to grade 1 by day 28. This indicates that reduction of severity of symptom was to greater extent in trial group.

Aruchi:-

In *Aruchi lakshana* 45% patients showed grade 3 severity which was reduced to grade 2 by day 28 in control group and to grade 1 in trial group. This indicates that reduction of symptom in trial group was to greater extent in trial group as compared to control.

Shirashula:-

Considering *Shirashula lakshana* 15% patients shown grade 3 severity in both control and trial group of which in control group all reduced to grade 2 by day 28, whereas in trial group half of the patients shown reduction to grade 1 by day 28. This indicates that reduction of severity of symptom was to greater extent in trial group as compared to control.

Nidranash:-

In *Nidranash lakshana*, 25% patients showed grade 3 severity which was not reduced by day 14 but in trial group 30% patients showing grade 3 severity was reduced to grade 2 by day 14. This suggests that in trial group the reduction of symptom was earlier than control group (2 week earlier).

On the basis of the above symptoms it can be said that the trial drug was clinically effective and found to be statistically.

DISCUSSION ON INVESTIGATIONS

Hemoglobin percentage:

After the treatment with *Drakshadi Panaka* mean difference of Haemoglobin (gms %) was increased by 0.20 in trial group; whereas in control group it decreased by 0.20. It may be due to the action of the contain *Dadima*. Significant results may not be got due to short duration of trial drug. It shows that drug was effective but statistically non-significant.

Total Bilirubin:

After the treatment with *Drakshadi Panaka*, reduction of total bilirubin was not seen in both groups. It shows that the drug was statistically non-significant.

Direct Bilirubin:

After the treatment, mean difference of Direct Bilirubin (mg/dl) was showed decrease of 0.30 in trial group; whereas in control group it didn't shown any decrease. It shows that drug was effective.

Indirect Bilirubin:

After the treatment with *Drakshadi Panaka*, mean difference of Indirect Bilirubin (mg/dl) showed decrease of 0.8; in

control group as well as trial group. It shows that drug was not effective and statistically not significant.

SGOT and SGPT:

After the treatment, mean difference of SGOT (IU/L) and SGPT didn't show any decrease in mean value in both groups. Hence the drug was statistically non-significant.

Alkaline Phosphate:

After the treatment with *Drakshadi Panaka*, mean difference of Alkaline Phosphate (IU/L) depicted a decrease of 22 in trial group; whereas in control group mean difference was decreased by 14. It shows drug was statistically significant in reducing alkaline phosphate levels.

CONCLUSION

On the basis of the observations of symptoms it can be said that the trial drug was clinically effective and found to be statistically. *Drakshadi Panaka* constitutes four ingredients i.e. *Draksha*, *Kapittha*, *Dadim*, *Matulunga*. It is easy to prepare, administer, palatable and cost effective. *Drakshadi Panaka* is one of the *kalpas* which is elicited in the specific treatment of *Pittaj Madatyaya*. It was statistically significant in reducing alkaline phosphate levels.

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