

## MANAGEMENT OF BALATISARA WITH REFERENCE TO CHILDHOOD DIARRHOEA WITH YAVANIPANCHAK- A RESEARCH ARTICLE

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### ABSTRACT

Diarrhoea is a common but potentially serious illness in early childhood. A child suffers on an average 10 to 15 episodes of diarrhoea in the first five year of life. In *Ayurveda* the pathogenesis and complications of *balatisara* has been described in details & emphasis has given to control it in prior hand. For the management of *balatisara* a number of composition are found in various text books among which “*YavaniPanchaka*” an herbal compound has described by *BhaishjyaRatnavali Balargadhikara* is said to be an effective one.

**Keyword:** *Balatisara, YavaniPanchak, diarrhoea*

### INTRODUCTION

*Balatisara* meaning *atisara* in *bala* or childhood diarrhoea.<sup>(1)</sup> It is one of the commonest & serious disease during childhood.

These liquid stools are usually passed more than three times a day. However, diarrhoea is the recent change in consistency and character of stool is most important rather than number of stool passed. A child suffer from an average 10 to 15 episodes of diarrhoea in the first five year of life, out of these three to five episodes occurs during very infancy. i.e. 1<sup>st</sup> year of age.<sup>(2)</sup> In the tropical belt 15 to 40% of all deaths among children below 5 years are due

to diarrhoea. Diarrhoea has its main impact on infants and young children in the poor section of the developing countries. Existence of malnutrition makes the child much vulnerable to suffer from diarrhoea. Diarrhoea has also been shown to have significant effect on nutrition. According to a conservative estimate, almost 500 million children suffer from acute diarrhoea annually, of them 5 million die every year. In India alone, nearly 1.5 million children die due to acute diarrhoea every year.<sup>(3)</sup> The seriousness of the disease owes to the commonest complication i.e. dehydration

which the most fatal one. A child may lose almost and much water and electrolytes from the body during an episode of diarrhoea as in an adult, since the length and surface area of intestinal mucosa of a child from where the diarrhoeal fluids are secreted are fairly large.<sup>(6)</sup> *Yavanipanchaka* contains *Yavani*, *Jeeraka*, *Lavang*, *Jatiphala* & *Vid Lavana* in equal quantity. The above drugs are very commonly available & very cheap, which can be afforded by poor section of the society. Keeping the above fact in mind the present study has been aimed to evaluate the efficacy of *Yavanipanchaka* in *Balatisara*.

group.

### Preparation Of Research Drug (1)

| Sl. No. | Name of the Ingredient dry herbs | Amounts taken |
|---------|----------------------------------|---------------|
| 1.      | <i>Yavani seed</i>               | 600 gm        |
| 2.      | <i>SwetaJeerak seed</i>          | 600 gm        |
| 3.      | <i>Deva pushpa</i>               | 600 gm        |
| 4.      | <i>Jatiphala</i>                 | 600 gm        |
| 5.      | <i>Vid lavan</i>                 | 600 gm        |
| 6.      | Water ( for <i>mardana</i> )     | As necessary  |

All the ingredient were mixed properly and left for drying in the sunlight for 3 to 4 days then make it tablet form with a amount of 250 mg and put in a tray.

### Administration of Drug

**Aim:** The study was carried out to evaluate the efficacy of *YavaniPanchak* through assessment of clinical potentiality and laboratory findings on *Balatisara*.

### Material Method:

The research work was done as per following procedure:

The research work has been carried out on 40 individuals who are randomly divided in two groups. Out of which 20 individuals were taken under trial group and 20 individuals patients under control.

-Route: Orally

- Dose: 250 mg thrice daily for a period of five days.

-*Anupan*: Honey

### Results and observations:

Showing the percentage of the patients got relief after 3<sup>rd</sup> day (2)

| Sl.No | Sign and Symptoms    | Percentage of patients got relief |       |
|-------|----------------------|-----------------------------------|-------|
|       |                      | TG                                | CG    |
| 1.    | Frequency defecation | 85                                | 95    |
| 2.    | Consistency of stool | 85                                | 95    |
| 3.    | Mucus in stool       | 76.92                             | 79.35 |
| 4.    | Loss of appetite     | 77.7                              | 60    |
| 5.    | Abdominal colic      | 100                               | 100   |
| 6.    | Fever                | 70                                | 100   |

|     |                           |       |       |
|-----|---------------------------|-------|-------|
| 7.  | Vomiting                  | 100   | 100   |
| 8.  | Undigested food particles | 70    | 84.16 |
| 9.  | Pus cell                  | 81.81 | 100   |
| 10. | Cyst in stool             | 100   | 90    |
| 11. | Dehydration               | 100   | 100   |

Showing the percentage of the patients got relief after 5th day(3)

| Sl.No | Sign and Symptoms         | Percentage of patients got relief |     |
|-------|---------------------------|-----------------------------------|-----|
|       |                           | TG                                | CG  |
| 1.    | Frequency defecation      | 100                               | 100 |
| 2.    | Consistency of stool      | 100                               | 100 |
| 3.    | Mucus in stool            | 100                               | 100 |
| 4.    | Loss of appetite          | 100                               | 95  |
| 5.    | Abdominal colic           | 100                               | 100 |
| 6.    | Fever                     | 100                               | 100 |
| 7.    | Vomiting                  | 100                               | 100 |
| 8.    | Undigested food particles | 100                               | 100 |
| 9.    | Pus cell                  | 100                               | 100 |
| 10.   | Cyst in stool             | 100                               | 100 |
| 11.   | Dehydration               | 100                               | 100 |

### Clinical Study:-

Diarrhoea is a common but potentially serious illness in early childhood. A child suffers on an average 10 to 15 episodes of diarrhoea in the first five year of life.

In the present study the diarrhoea patient were included where there was mild and moderate dehydration. Chronic diarrhoea and persistent diarrhoea cases were also included. The acute diarrhoea when lasts for more than 14<sup>th</sup> days it is known as persistent diarrhoea. From the etiological point of view it can be stated that these type of diarrhoea are generally of infectious origin. Modern science is always developing new dimensions in the field of investigation and management. It is also mentioned in Ayurveda to protect the health of an individual and simultaneously cure the disease. The synthetic medicines which are use today have hazardous side effects. Especially in case of children we must take care to prevent the indiscriminate use of synthetic medicines. Use

of antibiotic also develops resistance strains which is undesirable. The present world is also in search for a suitable alternative. The investigation and researches are going on in this field keeping this view in mind. In this study, the trial drug “Yavanipanchaka” has been taken from “BhaisajyaRatnavali” which is indicated for the treatment of Balatisara. “YavaniPanchaka” is cheap and can be easily affordable by poor people. Moreover it is a complete herbal formulation and after the clinical trial it was seen that there was no adverse effects. So it can be used for longer period without any risk profile. Its therapeutic values obtained are clinically and statistically acceptable.

Explaining the present properties the drug has *Katu, Tikta rasa, Grahi, Tikshna, LaghuGuna, UshnaVeerya, KharaGuna, KatuVipaka.*

Due to the presence of *lavana, katu, tikta Rasa, Grahi, Tikhsna, LaghuGuna, UshnaVeerya, KatuVipaka* the prepared drug has

mainly *deepan* and *pachan* action. So that in case of diarrhoea due to indigestion, *mandagni*, *visamagni*, loss of appetite, the prepared medicine is more effective. Some germicidal action is also present in “*Yavani*”. So it also acts in case of infective diarrhoea. The antibacterial and antiprotozoal action is present in honey which is used as *anupana*. So the drugs acts in case of chronic diarrhoea and dysentery. In the present investigation, 40 individual patients with complaints of loose motion attending IPD and OPD of Gopabandhu Ayurveda Mahavidhyalaya and Hospital, Puri were selected randomly and classified into two groups having twenty nos. in each. The trial group is administered with “*Yavani-Panchaka*” in dose of [250] mg thrice daily with honey and control group with Normet Syrup in a dose of 5 ml thrice daily.

In both the groups, duration of treatment was mentioned up to maximum limit of 5 days.

The study regarding age and sex disclosed that out of 40 patients, 13 belong to the age group of 2 – 3 years, 12 patients belong to the age group of 3 – 4 years and 15 patients belong to the age group of 4 – 5 years and 19 patients in male group, 21 cases in female group.

Considering the habitat of 40 children 8 (20%) were from rural area,

24 (60%) from semi- urban and 8(20%) from urban area.

According to the economic status the patient were divided into three groups. 16 (40%) , 14 (35%), 10 (25%) are from poor medium and high income group respectively.

The lower income group were more affected to this disease.

Regarding the chief complaint out of 40 patients all complained of -loose motion 12 (30%), fever 15(37.5%) ,loose of appetite 5

(12.5%), abdominal pain 5 (12.5%) ,vomiting 3 (7.5%), distend abdomen and 1 (2.5%) complained of foul smelling of stool.

The past history of *Balatisara* may be due to infectious food, heavy meal and some case without past history also.

While considering the immunization 39 (97.5%) were immunized and 1 (2.5%) case was not immunized.

Regarding the state of *agni* 18 (90%) cases belongs to *Mandagni* and 4 (10%) belong to *Vishamagni*.

The study regarding urination reveals that more is the frequency of defecation less is the number of urination and vice versa.

The seasonal effect on *Balatisara* reveals that maximum patient suffer this disease in summer rainy season.

The study regarding frequency of defecation after 3<sup>rd</sup> day treatment of trial group. The changes were 85% and in control group 95% changes occurred. Similarity after the 5<sup>th</sup> day treatment in trial group and control group 100% change occurred. So it was found that both the drugs act against frequency of defecation and the action of control drug is more than the trial one.

Similar study was conducted for the consistency of stool and control drug act against the consistency of stool.

Before the treatment of trial and control group of patients it was seen that presence of mucus is found in almost all cases and after the treatment of both the group maximum patient were free from mucus. So it is clear that both the drug act against mucus.

In case of loss of appetite, it was found that both in changes occurred the trial and control group, after 3<sup>rd</sup> day and 5<sup>th</sup> day treatment.

Out of 40 nos. of patients 17 (42.5%) were suffering from abdominal colic. The patients were completely free from Abdomen. Colic only after the third day treatment. So both the drug were highly effective in reducing the abdominal pain.

Some cases were found in mild grade of fever before treatment which was completely recovered after the 5<sup>th</sup> day treatment in both the groups. In case of control drug it was found that after the 3<sup>rd</sup> day treatment the patients were fully cured.

Mild vomiting was found in 20% cases before the treatment which was fully cured within 3<sup>rd</sup> day of treatment.

The patients who were taking oral rehydration therapy also gave some benefits to cure the level of dehydration.

The clinical assessment of trial and control group drugs reveals that in case of trial group after the third day treatment 6(30%) cases showed maximum improvement and 14(70%) showed moderately improvement. In control group 2 (10%) got fully cured, 16(80%) showed maximum improvement and 2 (10%) cases showed moderate improvement.

After the 5<sup>th</sup> day treatment with trial drug 4(20%) cases become fully cured, 14(70%) became maximum improvement and 2(10%) showed moderately improved. In case of control group 15(75%) cases showed fully cured and 5 (25%) cases become maximum improvement.

From the statistical analysis of both theatrical and control group, it was found that the action of both the drug were highly significant to relief the clinical sign and symptoms. But it was observed that the control drug is more effective than the trial drug. In case of trial drug maximum clinical sign and symptoms were

free in 5<sup>th</sup> day of treatment. During the follow up period it was observed that the rest clinical sign and symptoms were free by taking medicines another 2-3 days only.

So the result showed a gradual improvement in both the groups, but the control group showed a higher efficacy than the trial drug.

## DISCUSSION

In the present study, 40 individual patients with complaints of loose motion attending IPD and OPD were selected randomly and classified in to two groups having 20 numbers in each. The trial group is administered with “YavaniPanchak” in a dose of 250 mg thrice daily with honey and control group with normet syrup in a dose of 5 ml thrice daily.

In both the groups, duration of treatment was mentioned up to a maximum limit of 5 days.

The study regarding frequency of defecation after 3<sup>rd</sup> day treatment of trial group. The changes was 85% and in control group 95% change occurred. Similarly after the 5<sup>th</sup> day treatment in trial group and control group 100% changes occurred. So it was found that both the drugs act against frequency of defecation and action of control drug is more than trial one.

Before the treatment of trial and control group of patients, it was seen that the presence of mucus is found in almost all cases and after the treatment of both the groups maximum patients were free from mucus so it is clear that both the drugs act against the mucus.

Out of 40 numbers of patients, 17 (42.5%) were suffering from abdominal colic. The patients were completely free from abdominal colic only after 3<sup>rd</sup> day treatment so both the drugs were highly effective in reducing abdominal pain.

In case of cyst, the laboratory investigations also say that maximum change occurred during the period of 3<sup>rd</sup> day and 5<sup>th</sup> day treatment in both the groups.

The patients who were taking oral rehydration therapy also gave some benefits to cure the level of dehydration.

So the result showed a gradual improvement in both the groups but the control group showed higher efficacy than the trial drug.

## CONCLUSION

The trial drug “YavaniPanchaka” is commonly available and is a cost effective drug. It can be afforded by the poorest people of the society. From the present clinical study, it showed that efficacy of drug is very high; hence it can be used effectively to control *balatisara*. The trial drug has no adverse effect. Further study can be carried out in large sample in future.

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