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Research Article

A STUDY OF AYURVEDIC HERBAL COMPOUND IN *ATISARA* (DIARRHOEA) N.Y.Barkade^{1*}, K.S.Mandave², R.P.Mane³

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KEYWORDS: *Kutaja, Bilva phala, Shunthi, Vacha, Vidanga, Atisara,* Diarrhoea.

ABSTRACT

Atisara is essentially a vitiation of Abdhatu though it is manifested in the Gastro Intestinal tract. This is a psychosomatic condition. The mental factor plays a major role in the pathogenesis of the disease. This is supported by various dietetic factors and environmental conditions. India is a developing country. It has not reached to that level of advanced countries where the water supplies the drainage systems and health education have attained the ideal level of health care.

A study of 'Ayurvedic Herbal compound' has been carried out in 25 cases of 'Atisara' with Madhyama Shrenee of Abdhatukshaya (moderate degree of dehydration) with following specific aims and objectives. The Ayurvedic Herbal Compound - Tab 'H' contains study the efficacy of herbal combination Kutaja + Bilva + Shunthi + Vacha + Vidanga.

After studding pathological findings in the stools before and after treatment of Tab H it is observed that after Tab H treatment the number of pus cells in the stools has effectively decreased from 68% to 12% of the total number of patients. The number of mucus cells in the stools has markedly decreased from 24% to 4% of the total number of the patients Cysts of Entamoeba histolytica has disappeared from 36% to 12% of the total number of the patients. Thus it is conclude that the Tab. H has shown efficacy in pathological cure in the disease.

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INTRODUCTION

Ayurveda is an ancient Indian science and a way of life. The purpose of the science is two folds. It helps to get rid of physical and mental illness and to protect a person from getting ill. A man is considered by Ayurveda as a miniature of nature. The various phenomena observed in nature can be seen, in a smaller scale, in a human being. Thus the activities in human body follow rhythm like the nature. The human body is a body-mind-soul complex. Whatever change occurs in one component affects the other factor. The *Jalatawa* in nature is represented in the body as fluid in various *Dhatus* called as *Abdhatu*.

Atisara^[1,2,3] is essentially a vitiation of Abdhatu though it is manifested in the Gastro Intestinal tract. This is a psychosomatic condition. The mental factor plays a major role in the pathogenesis of the disease. This is supported by various dietetic factors and environmental

conditions. India is a developing country. It has not reached to that level of advanced countries where the water supplies the drainage systems and health education have attained the ideal level of health care. The etiology Atisara in those countries is different from our country. Here poor sanitation contaminated water supply faulty drainage. ignorance about basic health education, under nourishment and large population are major factors leading to the epidemic conditions like *Atisara* such conditions exist mainly in villages and slum areas where 80% of population lives. The factors mentioned above may be seen in all such places and therefore Atisara is still number one disease in many dispensaries, PH.Cs. and hospitals. The statistics of patients of Atisara admitted in Dr.M.N. Agashe Charitable Hospital where I have worked during the last 3 years shows following figures.

S.No.	Year	Total No. of Patients of <i>Atisara</i>	Male Patients	Female Patients
1.	1988-89	66	36	30
2.	1989-90	53	20	33
3.	1990-91	108	40	68
4.	1991-92	77	36	41
5.	1992-93	116	51	65

It is therefore felt that some Avurvedic measures need to be found out to check this problem. The remedy should be easily available, easily prepared and should be cost effective. Charaka has mentioned that *Jala* is one of the major factors responsible for Janapadodhwansa epidemic. As Atisara is caused usually due to vitiated Jala, one can see epidemics of *Atisara* even in the present days. Atisara is the disease related with Annavaha and Pureeshavaha Srotasas. The concept of Agni holds a key position in the production of disease. The vitiation of *Agni* responsible for the production of all diseases and Atisara is no exception for this so, while treating Atisara it is important to correct Atisara as well as to regulate the activity of Agni. Ayuvedic texts have described various herbs herbal formulations, herbo-mineral combinations to treat Atisara. In my present study. I have decided to study the efficacy of herbal combination *Kutaja* + Bilva + Shunthi + Vacha + Vidanga. [4,5,6,7]

As a part of pilot study this combination was prescribed to at least 50 cases of *Atisara* due to various etiology and in various stages of disease. After going through the results it was decided to have a scientific type and stage of *Atisara*. In this project, I have studied the efficacy of Ayurvedic herbal combination on *Atisara*. For their trial 25 cases are selected from both sexes having age group 10-70 years and admitted in Dr.M.N.Agashe Charitable Hospital, Satara. The part of treatment is Tab 'H' 3 QID with *Limbu Sarbat* and part of diet is *Limbu Sabat Lajamanda Peya Vilepi*, rice and *Mudga Yusha*. Normal diet is given upto the date of discharge i.e., 3 days from the date of admission.

The effects of Tab 'H' on patients are observed to see.

- 1) Cessation of Dravamala Pravaritti
- 2) Improvement of patients from dehydration
- 3) Cessation of *Udarshoola*
- 4) Increases appetite (*Kshudhavardhvardhana*)

On this basis, I have treated 25 patients and tried to study the efficacy of a herbal combination *Atisara*, a combination which is used in Ayurvedic

medicine since hundreds of years. The details of the study follow in the subsequent chapters.

Aims and Objectives

A study of 'Ayurvedic Herbal compound' has been carried out in 25 cases of 'Atisara' with Madhyama Shrenee of abdhatukshaya (moderate degree of dehydration) with following specific aims and objectives.

- 1. To study the incidence of this disease according to *Vaya*, marital status, economical status, *Prakriti* and *Donshabheada*.
- 2. To study the disease according to etiological factors.
- 3. To study the clinical signs and laboratory findings.
- 4. To study if the frequency of *Dravmala Pravrutti* reduced by herbal compound.
- 5. To study the clinical efficacy of the Ayurvedic herbal compound in respect to stool examination.
- 6. To evaluate efficacy of herbal compound according to percentage of cured and non-cured patients.
- 7. To assess whether Ayurvedic herbal compound is useful for *Apunarbhavatwa* of the disease *Atisara*.
- 8. To determine the correct indications for the efficacy of Ayurvedic herbal compound and to find out limitations and contra-indications, if any.

Materials and Methods

The present work deals with the study of patients suffering from *Dravmala Pravrutti* (Diarrhoea) and their treatment with Ayurvedic regimen- The Ayurvedic Herbal Compound - Tab 'H'.

Selection of Patients

25 cases were selected for the present study.

Criteria for Selection

- A) The patients from both sexes between the age group 10-70 years and belonging to all Socioeconomic strata.
- B) The cases coming from Satara City and surrounding villages.
- C) The patients attending IPD within 3 days after the onset of symptoms.

The chief presenting symptoms are-

- 1) Dravamalapravrutti
- 2) Udarshoola
- 3) Kshudhamandya
- 4) Hrillasa
- 5) Aruchi

The patients having *Madhyama Shrene* of *Abdhatu- Kshaya*. It was mainly assessed on the basis of clinical parameters. Systolic blood pressure of minimum 90mm of Hg was decided as the main objective criteria for *Madhyama Shrene* of *Abdhatukshya*.

The patients of *Atisara* excluded from the study were

- a) A) Age group of 1-9 and above 70 years, to avoid the possible risk of *Daruna Abdhatukshaya* which can alter the course of the disease.
- b) B) The patients presenting with symptoms and sings of *Daruna Abdhatukshaya* to avoid the possible risk of complications like circulatory failure shock and acidosis.
- c) Pregnant women to avoid the possible risk of complications.
- d) Dravamala Pravrutti associated with blood.
- e) Known cases of poisoning.

All patients were admitted in the Department of Kayachikitsa, Dr.M.N.Agashe Charitable Hospital, Satara. A general case taking with detailed history physical examination and the other details of patients were carried out on the basis of special case paper proforma prepared for this project. The proforma was thoroughly completed in each case.

Diagnosis

The diagnosis was mainly based on history symptoms and signs.

Laboratory Investigations

These patients were subjected to necessary laboratory investigations.

Stool examination

- 1) Naked eye examination
- 2) Microscopic examination
- 3) Jalanimajjana Pareeksha

Hematological examination

- 1) Hb percentage
- 2) W.B.C. count
- 3) Differential count
- 4) ESR

Urine examination

- 1) Macroscopic
- 2) Biochemical examination.

Drug: After clinical examination these patients were subjected to 'Ayurvedic Herbal Compound' therapy. The Ayurvedic Herbal Compound (Tab 'H') was prepared by 'Pasali' Pharmaceuticals, Badalapur (Thane).

The solid extracts were taken in the following proportion –Per Tablet of 250 mg.

1)	Kutaja	18 mg.
2)	Bilva phala	8 mg.
3)	Shunthi	2 mg.
4)	Vacha	1 mg.
5)	Vidanga	6 mg.

Adequate quantity of sugar, di-besic calcium phosphate and gum were added and tablet of 250 mg each were prepared.

Dose- 2 tabs tds with Nimbu-sarbat

Dose of Ayurvedic Herbal Compound.

3 Tab QID x 3 days in I.P.D. followed by 2 Tab TID x 3 days in O.P.D.

Anupana: Luke warm water (500 ml) + One lemon fruit + One gram table salt (Samudra Lavana) + Twenty five grams sugar.

This Sarbat is used as an Anupana and liquid diet.

Duration of the Treatment

The duration of treatment is 6 days.

Diet Schedule

Restricted diet scheme was followed. *Limbu Sarbat* and *Laja Manda* were given for first 24 hours after the admission. This was followed by Tandula village twice a day of discharge. Other food material was strictly prohibited. Plain boiled water was given and advised to take in ample quantity. A cup of tea was recommended. In each and every patient intake output chart was maintained. Clinical examination was done regularly twice a day (8.00 a.m. and 8.00 p.m.). At 2.00 p.m. only pulse and B.P. readings were recorded.

Cessation of Dravamalapravrutti

The 'Atisara' was stated to be cured when the individual passes *Pindita Purisha*, becomes capable to pass *Mootra* and *Apanavata* without voiding *Pureesha* and accompanied with *Laghuta* in *Kosthal*.

Cessation of *Udarshoola*

Improvement in appetite (Kshudhavardhan)

Improvement in characteristics of the pulse, B.P. records and other signs of dehydration.

A case was considered as completely cured if there was complete absence of *Dravamala pravrutti* and other signs and symptoms.

The presence of severity of signs and symptoms after 24 hours or if signs of severe dehydration develop, it was considered as no relief.

Follow Up

Follow up was taken 7 days after the date of admission. Stool examination was repeated at that time and the patient was again followed upto 6 months. The observations were recorded and were put in tabular form at appropriate places. 25 cases

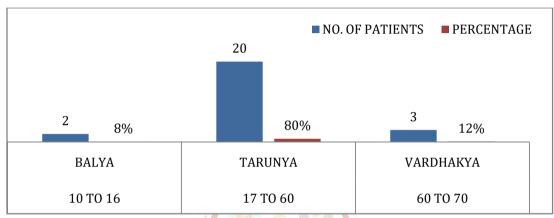
of *Atisara* are treated with Ayurvedic herbal combination -Tab 'H'. Various observations are taken according to *Vaya* (age), *Linga* (sex), *Desha Marital* (residence) *Kala* (*Ritu*), Economical and Educational status and Constitution *Nidanas*,

Clinical findings, Laboratory Reports, signs of local improvement and cure. In this project work all the three groups of *Vayas* i.e. *Bala*, *Madhya* and *Vriddha* are taken at random.

Observations

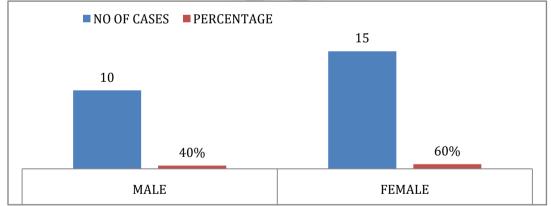
Table 1: Showing Age Incidence

Group	Age group	Description	No. Of patients	Percentage
A	10 to 16	Balya	2	8%
В	17 to 60	Tarunya	20	80%
С	60 to 70	Vardhakya	3	12%



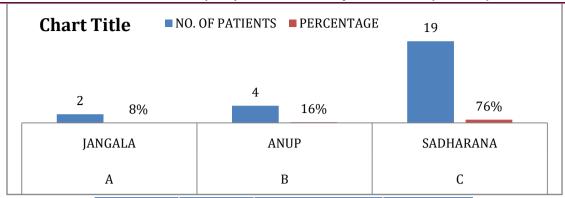
Showing Sex Incidence

Group	Sex	No of cases	Percentage
A	Male	10	40%
В	Female	15	60%



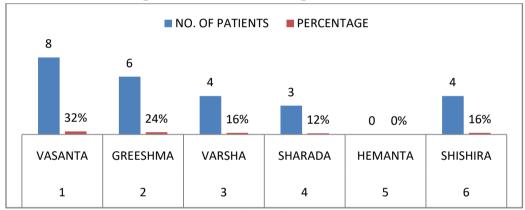
According to Desha

Group	Desha	No. Of patients	Percentage
A	Jangala	2	8%
В	Anup	4	16%
С	Sadharana	19	76%



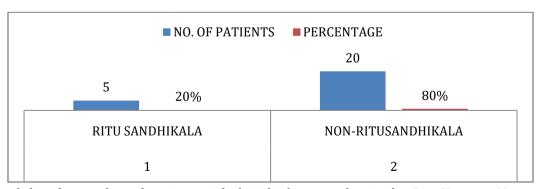
Obs no.	Ritu	No. Of patients	Percentage
1	Vasanta	8	32%
2	Greeshma	6	24%
3	Varsha	4	16%
4	Sharada	3	12%
5	Hemanta	0	0%
6	Shishira	4	16%

Showing Distribution According to Ritu Adana Kala



Visarga Kala

Obs. No.	Description	No. Of patients	Percentage
1	Ritu Sandhikala	5	20%
2	Non-Ritusandhikala	20	80%



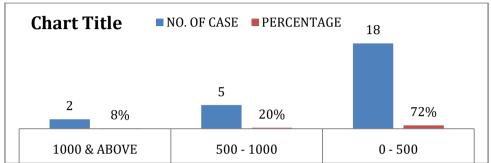
Reveal that the number of patients with their highest number in the *Ritu Vasanta*. Next to it is in the 'Greeshma Ritu' i.e. 6 (24%) of the total number of the patients. Number of patients in *Varsha Ritu* and *Shisheera Ritu* is 4 (16%) and 3 (12%) number of patients from sharada ritu shows the minimum incidence. 5 patients i.e. 20% of total number of the patients are observed in 'Ritu Sandhikala.' Higher incidence in *Vasanta* and *Greeshma Ritus* is accepted by modern research higher frequency of diarrhea in summer

months have been observed. Contaminated water is regarded as one the chief causes of the *Atisara* gets purified naturally. [6] This fact perhaps may cause the lower incidence of the disease in *Sharada Ritu*.

Monthly Income of Patients

Class	Monthly income	No. Of case	Percentage
1	1000 & ABOVE	2	8%
2	500 - 1000	5	20%
3	0 - 500	18	72%

According to Economical Status

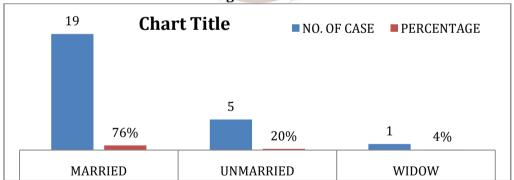


Reveals the number of patients with their highest number in the class III which is 18 i e 72% of the total number of the patients. This clearly indicates that the occurrence of *Atisara* is maximum in lower economical strata of the society poverty is the chief social cause for the manifestation of the disease. Acharya says 7 incidence of this disease is not only related to the race or climate conditions but is dependent on the socio- economical conditions. It is high in lower economic groups.

Marital Status of Patients

Group	Marital status	No. of case	Percentage
A	Married	19	76%
В	Unmarried	5	20%
С	Widow	1	4%

According to Marital Status

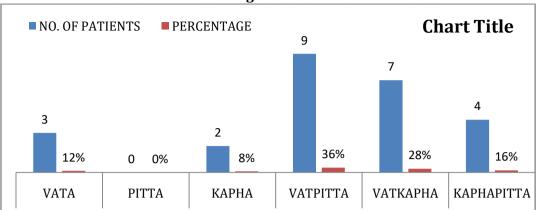


Reveals the number of patients with their highest number of married status i. e., 19 (76%) of the total number of the patients.

Constitution of patients

Group	Constitution	No. Of patients	Percentage
A	Vata	3	12%
В	Pitta	0	0%
С	Kapha	2	8%
D	Vatpitta	9	36%
Е	Vatkapha	7	28%
F	Kaphapitta	4	16%

Distribution According To Constitution of Patients



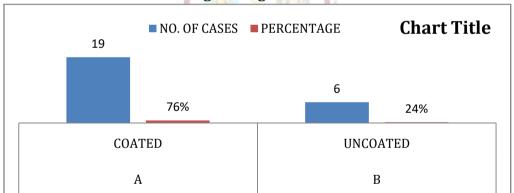
Deals with the *Prakriti Pareeksha* or constitutional study in the series. All the 25 cases of *Atisara* have been analyzed for their *Prakritis* which are as follows.

1) Vata Pitta Prakriti 36% 2) Vata Kapha 28% 3) Kaphapitta 16% 4) Vata 12% 5) Kapha 8%

Tongue Examination of Patients

Group	Tounge examination	No. Of cases	Percentage
A	Coated	19	76%
В	Uncoated	6	24%

According to Tongue Examination

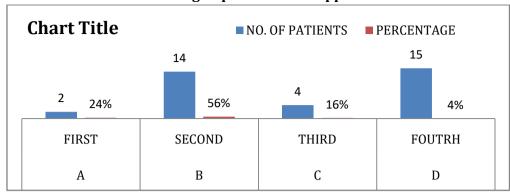


Histogram is based on clinical findings of the tongue in the series. It reveals the highest incidence of *Sam Lipta Jivha* (coated togue) 76% in the present study next to it is the incidence of *Alipta Jivha* or uncoated tongue (24%) *Lipta Jivha* which denotes *Amavastha* of the disease.

Improvement in Appetite

Group	Days Required for Improvement	No. Of Patients	Percentage
A	First	2	24%
В	Second	14	56%
С	Third	4	16%
D	Fourth	15	4%

Showing Improvement in Appetite



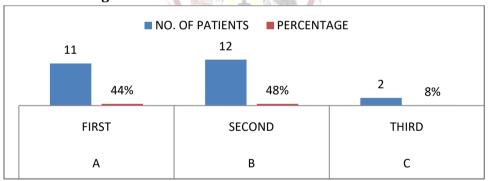
This reveals that the incidence of improvement in appetite is maximum on 2^{nd} day of admission. The number of patients is 14 i.e. 56% of the total number of the patients. Next to it is the group of first day i.e. 6 (24%) for the total number of the patients. The group of 3^{rd} day has shown minimum incidence i.e. 4 (16%) of the total number of the patients.

Reveals that the frequency 2 of *Atisara* has shown incidence (24%). Next to it frequency one i.e. (20%) for the total number of the patients. Next to it frequency 4 (16%) and then frequencies 5 and 6 having equal percentage i.e. 8% each. From this we can conclude that the symptom *Dravamalapravrutti* is present mostly at the onset of the disease and slowly reduced.

Cessation of Pain in Abdomen

Group	Days for Cessation of Pain in Abdomen	No. of Patients	Percentage
A	First	11	44%
В	Second	12	48%
С	Third	2	8%

Showing Cessation of Abdominal Pain in Relation to Time

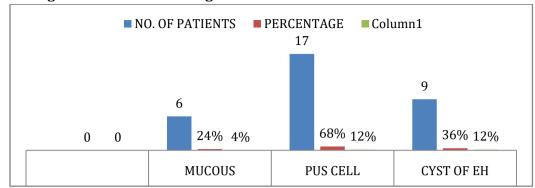


Shows that the incidence of cessation of pain in abdomen is maximum on the 2^{nd} day of admission. The number of patients is 12 i.e. 48% of the total number of patients. Next to it, is group of 'first day' i.e. 11 (44%) and minimum incidence in the group of 'third day' i.e. 2 (8%) of the number of patients. This clearly indicated that Vatanulmana action of Tab 'H' starts from first day and Anulomana is achieved within first two days of the treatment.

Pathological Findings in the Stool

Group	Pathological Findings	No. of Patients	Percentage	Column1
			B.T.	A.T.
Α	Mucous	6	24%	4%
В	Pus Cell	17	68%	12%
С	Cyst Of EH	9	36%	12%

Showing Distribution According to Stool Examination Before and after Treatment



DISCUSSION

Reveals that the number of patients with their highest number in the age group of 17 - 60 years i.e. *Tarunyavastha* which is 20 i.e. 80% of the total number of patients. This is perhaps due to repeated or excessive injection of food articles observed in this age group.

Sex of Patients: Reveals that total 60% of cases are female and 40% of cases are male.

Detailing this difference we can conclude that the females are more affected from *Atisara*.

According to *Desha*: *Desha* of Patients: Reveals the number of patients with their highest number belonging to 'Sadharana Desha' is 19 i.e. 76% of total number of patients. Next to it the group belonging to *Anupa Desha* is 4 (16%) of the total number and 2 (8%) of the total number from *Jangal Desha*. Here a conclusive determination is difficult because this hospital is situated in *Sadharana Desha* and the study was conducted in this centre only. Six *Ritus* are calculated according to Vagbhata 2.

Visarga Kala: Reveal that the number of patients with their highest number in the Ritu Vasanta. Next to it is in the 'Greeshma Ritu' i.e. 6 (24%) of the total number of the patients. Number of patients in Varsha Ritu and Shisheera Ritu is 4 (16%) and 3 (12%) number of patients from Sharada Ritu shows the minimum incidence. 5 patients i.e. 20% of total number of the patients are observed in 'Ritu Sandhikala.' Higher incidence in Vasanta and Greeshma Ritus is accepted by modern research higher frequency of diarrhea in summer months have been observed. Contaminated water is regarded as one the chief causes of the Atisara gets purified naturally 6. This fact perhaps may cause the lower incidence of the disease in Sharada Ritu.

According to Economical Status: Reveals the number of patients with their highest number in the class III which is 18 i.e. 72% of the total number of the patients. This clearly indicates that the occurrence of *Atisara* is maximum in lower economical strata of the society poverty is the chief social cause for the manifestation of the disease

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Constitution of Patients: Deals with the *Prakriti* pareeksha or constitutional study in the series. All the 25 cases of *Atisara* have been analysed for their *Prakritis* which are as follows.

1. Vata pitta prakriti 36% (The highest incidence)

Vat kapha
Kaphapitta
Vata
Kapha
Kapha

Tongue Examination of Patients: Histogram (IX) is based on clinical findings of the tongue in the series. It reveals the highest incidence of *Sam lipta Jivha* (coated tongue) 76% in the present study Next to it is the incidence of *Alipta Jivha* or uncoated tongue (24%) *Lipta Jivha* which denotes *Amavastha* of the disease.

Improvement in Appetite: Reveals that the incidence of improvement in appetite is maximum on 2nd day of admission. The number of patients is 14 i.e. 56% of the total number of the patients. Next to it is the group of first day i.e. 6 (24%) for the total number of the patients. The group of 3rd day has shown minimum incidence i.e. 4 (16%) of the total number of the patients.

Reveals that the frequency 2 of *Atisara* has shown incidence (24%). Next it frequency one i.e. (20%) of the total number of the patients. Next to it frequency 4 (16%) and then frequencies 5 & 6 having equal percentage i.e. 8% each. From this we can conclude that the symptom *Dravamalapravrutti* is present mostly at the onset of the disease and slowly reduced.

Cessation of Pain in Abdomen: Shows that the incidence cessation of pain in abdomen is maximum on the 2nd day of admission. The number of patients is 12 i.e. 48% of the total number of patients. Next to it, is group of 'first day' i.e. 11

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Pathological Findings in the Stool: Reveals that after Tab 'H' therapy, the number of pus cells in the stools has effectively decreased from 68% to 12% of the total number of the patients. Cysts of Entamoeba Histolytica are disappeared from 36% to 12% of the total number of the cases. The number of the mucus calls in the stools has decreased from 24% to 4% of the total number of the patents. Result of the 25 patients treated with Tab 'H' has been classified as follows

Complete relief 96% Partial relief nil No relief 4%

CONCLUSION

After studding pathological findings in the stools before and after treatment of Tab H it is ob served that after Tab H treatment the number of pus cells in the stools has effectively decreased from 68% to 12% of the total number of patients. The number of mucus cells in the stools has markedly decreased from 24% to 4% of the total number of the patients Cysts of Entamoeba histolytica has disappeared from 36% to 12% of the total number of the patients. Thus it is conclude that the Tab. H has shown efficacy in pathological cure in the disease. 96% of the total number of patients are cured and 4% are not cured Thus it can be stated as the Tab H is highly effective in *Amavastha* of *Atisara*.

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