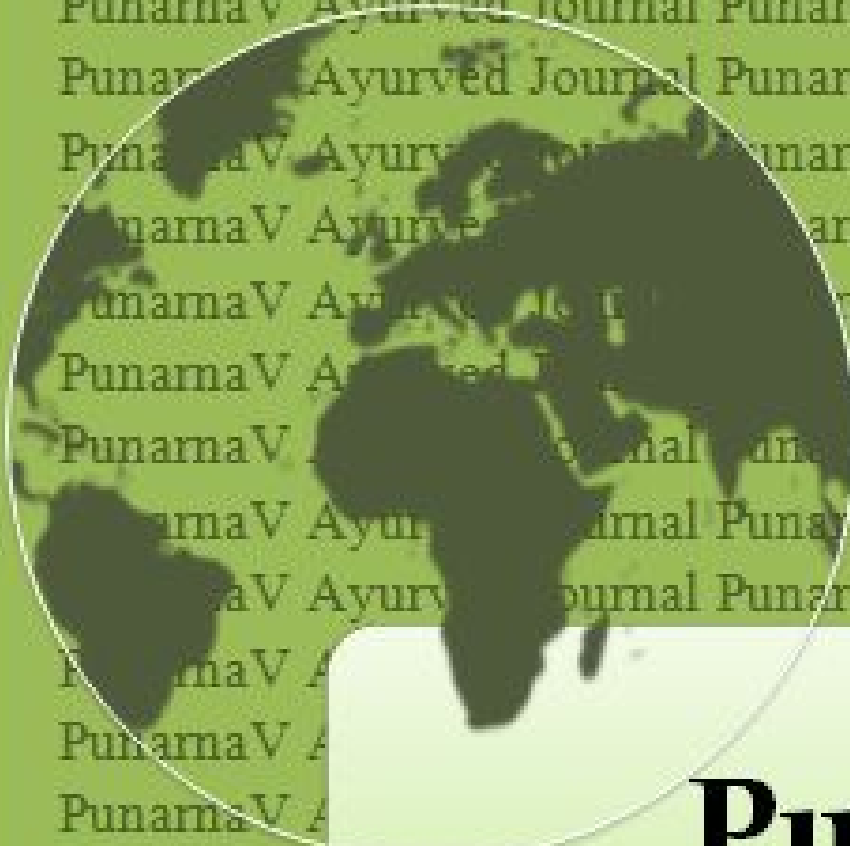


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TITLE

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SHITAL BHAGIYA<sup>1</sup>, BHUSHANBHAKKAD<sup>2</sup>, SHRIJAMAVANI<sup>3</sup>, DHANANJAY PATEL<sup>4</sup>.

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## A CLINICAL STUDY OF *PUNARNAVADI CHURNA* AND *KALLINGADI CHURNA* IN THE MANAGEMENT OF *GRAHANI*

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### ABSTRACT

*Grahani* is described as an *Agni Adhithana*. *Grahani* is influenced by *Agni* (has *AdharaAdheyaSambandha*). Malfunction of *Agni* i.e. *Mandagni* causes improper digestion which leads to *Grahani Dosh*. In current era wrong dietary habits, sedentary lifestyle and stress are key factor for diseases. All these causes disturb the GI tract, leading to poor digestion, absorption and create many digestive disorders. *Grahani* is one of the digestive disorder, people are often suffering. *Atisara* (Diarrhoea) is considered as one of the predisposing factor for '*GrahaniRog*' where *Agnivikriti* (*Agnimandhya*) is root cause. As *Agni* is the root cause here, the drugs which were chosen for the study were *PunarnavadiChurna*, *Kallingadi Churna* which increases *Agni*, corrects *Pachan Kriya* and *Ama* and by these corrects *GrahniRoga*. **Method:** Thirty patients suffering from *Grahani*, between the age group of 16 to 60 years of either sex participated in the study. Study was a randomized, controlled, open label clinical study. Patients were randomly divided into two groups: Group A ( $n = 15$ ) received *Punarnavadi Churna*, 3 grams between two meals for 4 weeks with *Ushnajala*. Group B ( $n = 15$ ) *Kallingadi Churna* with same dose and duration. Assessments were done after 4 weeks in both groups. **Result:** In both Groups 26.67% had complete remission; 60% had marked improvement, 13.33% had moderate improvement. **Conclusion:** Highly significant RESULTS were found in most of all the parameters of *Grahani Roga*. In comparison to *Kallingadi Churna*, *Punarnavadi Churna* showed better result in *Grahni Roga*.

**KEY WORDS:** *Agni*, *Grahani*, *Kallingadi Churna*, *Punarnavadi Churna*.

## INTRODUCTION

**CORRESPONDENT:  
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The disease "Grahani Roga" is the main & leading disorder of the gastrointestinal tract. As the hypo function of Agni i.e. Mandagni is the root cause of all the disease, Grahani Roga is also mainly caused by Agnidushti. It is an Ahitashanajanita Vyadhi; the Ahitashana includes faulty dietary habits like Pramitasana, Vishamasana Adhyashana, Samashana, Viruddhashana etc. and faulty life style like Diwa Svapana, Ratri Jagarana, and Vega Vidharana etc. The organ Grahani and Agni have Ashraya(site) - Ashrita (dependent) type of relationship. The prime site of Agni and the site of occurrence of the disease Grahani Roga is organ Grahani. The impairment of Agni (Mainly Mandagni) is responsible for the creation of Grahani Roga<sup>1</sup>.

According to Acharya Charaka, Weak Agni (Durbala) i.e. Mandagni

brings about Vidaha (a part which is mixture of digested and undigested material) of the food, which moves upwards and downwards in the gastrointestinal tract. When this Pakwa-Apakwa moves down wards, then it leads to the disease Grahani Roga<sup>2</sup>.

Grahani roga is Tridoshatmak, disorder of digestive system occurs due to vitiation of Pachakagni, Samanvayu & Kledaka Kapha. It occurs with the symptomatology like Muhurbadhha-muhurdrava mala pravritti, Amayukta malapravritti, Udarashula, Arochaka, Klama<sup>3</sup>. Acharya Sushruta also stated that patients either suffering from Atisara or in the stage of remission of Atisara indulge injudicious diet and neglect dietetic regimen as suggested after the Shodhana - Virechana, results in further vitiation of Agni. This vitiated Agni leads to vitiation of Grahani (Grahani Adhithana). Thus any disturbance in the functioning of Grahani results in symptoms of indigestion and it is named as Grahani Dosha & finally it results in Grahani Roga<sup>4</sup>.

### AIMS AND OBJECTIVES:

- 1) To study the etio-pathogenesis of Grahani according to Ayurveda.
- 2) To compare the clinical effect of Punarnavadi Churna & Kallingadi Churna in the management of Grahani.

## MATERIAL AND METHODS:

In present study, with the above mentioned aims and objectives, the clinical study progressed utilizing the clinical material as under,

### 1. Selection of Patients:

Patients attending outpatient department of the institute were recruited for the study. The CONSORT statement guidelines have been followed in reporting the outcomes of the study<sup>5</sup>.

### 2. Sampling Technique:

The patients were selected irrespective of their age, sex, religion, occupation etc. and simple random sampling technique was followed for grouping the patients in two groups.

### Diagnostic Criteria:

The patients with the complaints of *Grahani* i.e. *Muhu Baddha / Drava Mal pravritti, Picchil / Durgandhit Mal pravritti, Udgar Pravritti, Vidaha* etc. were selected for the study. For the purpose of perfect diagnosis and assessment a special research Performa was designed.

Thirty patients diagnosed as having *Grahani* as per the criteria were recruited from OPD and IPD of the Govt. Akhandanand Ayurved College, Ahmedabad.

### ➤ Inclusion Criteria:

- Patient having age between 16 years to 60 years.
- Patients having symptom of *Grahani*, i.e. *Muhur Baddha / Drava / Durgandhita / Picchila Mal Pravriti, Udgar Pravriti, Arochak, Praseka*, etc.
- Uncomplicated cases with classical pictures of *Grahani* have been selected irrespective of sex, caste, religion and profession.
- Patients have been divided in two groups.

### ➤ Exclusion Criteria:

- Patients having age < 16 and > 60 years.
- Patients suffering from Acute diarrhoea, Intestinal T.B., Gastric and Peptic ulcer, uncontrolled D. M. and H.T, *Gulma, Atisara, Arsha*.

### ➤ Research Design:

The present study is a randomized, controlled, open label, parallel group comparative clinical study. The scholars involved in randomization, distribution and administration of study articles were independent from the investigators. Computer generated random numbers were utilized for the study. During study, patients were asked to adhere to the treatment protocol and report any adverse events to the investigators at the earliest. Any clinical manifestation that was likely

to cause considerable distress was screened for possible adverse events.

➤ **Investigations:**

- 1) Routine Haematological examinations- Hb, TLC, ESR.
- 2) Routine & microscopic urine examination.

Above all investigations has been done before & after treatment to see patients

**Group A :Punarnavadi Churna<sup>6</sup>(Table 1)**

*Matra* (Dose) : 3 Grams in both *Madhya Kal* i.e. in between the meal.

Duration : 4 Weeks.

*Anupana* : *KoshnaJala* (Luke warm water)

**Group B: Kallingadi Churna<sup>7</sup>(Table 2)**

*Matra* (Dose) : 3 Grams in both *Madhya Kali*.e. in between the meal.

Duration : 4 Weeks.

*Anupana* : *Koshna Jala* (Luke warm water)

➤ **Dietary restrictions:**

The patients were strictly advised to follow the restrictions regarding food, food habits and life style. They were

general condition and to rule out any other pathology.

**Design of Groups and Management:**

Patients included in the present study were randomly divided into following two groups:

instructed to avoid the possible causative factors for *Agnimandya*, which can create the disease.

**CRITERIA FOR ASSESSMENT**

The improvement provided by the therapy was assessed on the basis of classical signs & symptoms of *Grahani*. All the signs & symptoms were assigned score depending upon their severity to assess the effect of the drugs objectively.

**Subjective parameters**

- Chief Complains: *Muhur Baddha/ Muhur Drava Mal Pravriti, Mal Swaroop: Durgandhita / Picchila Mal, Udgara Pravriti: Madhura/ Tikta/ Amla, Trishna, Arochaka, Vidaha.*

- Associated symptoms: *Pad Shotha*,  
*Tama Pravesha*, *Chardi*, *Aalasya*,  
*Jwara*, *Praseka*: *Hyper salivation*,  
*Bala Kshaya*.

- ESR
- WBC

#### STATISTICAL ANALYSIS:

Wilcoxon signed rank test<sup>8</sup>, chi square test and Students‘t’ test were applied for data analysis.

#### Objective parameters (Investigation):

- Haemoglobin

#### RESULTS:

##### EFFECT OF *PUNARNAVADI CHURNA* (GROUP – A):

15 patients who completed treatment in group A, highly significant results were found in cardinal signs like *Muhurbaddha/Drava mal Pravritti*, *Durgandhit/Pichhila Mala Pravritti*, *Trishna* (Table 3). Associated Complaints *Aalsya*, *Jwar*, *Praseka*, *Balkshaya* had highly significant result (Table 4), while others *Madhur/Tikta/ Amla UdgaraPravrtti*, *Arochaka* had significant result (Table 3). There was statistically highly significant increase in Hb.Changes in ESR was statistically significant (Table 5).

The reduction was *Muhurbaddha / Muhurdrava Mal pravritti*(76.92%), *Durgandhit / Pichhila Mal Pravritti*(91.43%), *Madhura / Tikta / Amla UdgaraPravritti*, *Vidaha* and *Trishna*relieved 100% (Table 3). *Arochak* was relieved 88.89% (Table 3). Associated Complaints *Pad Shoth*, *Jwar* and *Prasek* had been decreased 100% (Table 4). *TamaPravesh*88.46% *Aalasya*90% and *Balkshay*81.82% (Table 4).

##### EFFECT OF *KALLINGADI CHURNA*(GROUP – B):

15 patients who completed treatment in group B, highly significant results were found in cardinal signs like *Muhubaddha /Drava mal Pravritti*, *Durgandhit / PichhilaMal Pravritti*, *Trishna*(Table 3). Associated Complaints, *Aalsya*, *Bal Kshaya*had highly significant result (Table 4), while others *Madhur*

*/Tikta / Amla Udgara Pravrtti*, *Arochaka*, *Tama Pravesha* had significant result (Table 3). There was statistically highly significant increase in Hb.Changes in ESR was also statistically highly significant (Table 5).

The reduction was *Muhur baddha / Muhur drava Mal pravritti* (84%),



*Durgandhit / Pichhila Mal Pravriti* (83.33%), *Madhura / Tikta / AmlaUdgaraPravritti, Vidaha* and relieved 100%. *Trishna* was relieved 96.55%. *Arochak* was relieved 76.92% (Table 3).

Associated Complaints *Pad Shoth, Jwar, Praseka* and *Tama Pravesh* had been decreased 100%. *Aalasya* (96.55%) and *Balkshay* (83.33%) (Table 4).

#### OVERALL EFFECT OF THERAPY:

In Group A (*Punarnavadi Churna*), 4 patients (26.67%) had complete remission; 9 patients (60%) had marked improvement, while 2 patients (13.33%) had moderate improvement. While evaluating the overall effect of therapy, it was observed that none of the patients showed mild improvement or remained unchanged.

In Group B (*Kallingadi Churna*), 4 patients (26.67%) had complete remission; 9 patients (60%) had marked improvement, while 2 patients (13.33%) had moderate improvement. While evaluating the overall effect of therapy, it was observed that none of the patients showed mild improvement or remained unchanged.

#### Probable Action of *Punarnavadi Churna* in *Grahni Roga*:

On the basis of physiochemical properties of *Punarnavadi Churna*,

probable *samprapti vighatana* can be understood as follows,

##### i. Probable action on *dosha*

In disease *Grahni Roga*, *Samana Vayu, Pachaka Pitta* and *Kledaka Kapha* these 3 are the main culprits. The combination shows main action against *Vata* and *Kapha Doshas*

by virtue of its *veerya* (100 % of total drugs have an *Ushnavirya*). It also exhibits *Tridosha shamaka prabhava*, but to a lesser extent.

##### ii. Probable action on *dushya*

From the *Samprapti* of *Grahni Roga*, it is clear that the main *Dushya* involved is *Rasa Dhatu*. The combination shows, about 75% of total drugs have a *Katu Rasa* & 62.5% have got *Tikta Rasa*. *Tikta* & *Katu Rasa* improves the Digestion and makes *Dhatu* in proper form, so the

combination will act on the *Rasadhatu*. After seeing karmas percentage, it is clear that the yoga has a *Dipana* (87.5 % of total drugs) and *Pachana* (about 50% of total drugs) properties. It is proved that the yoga acts on the *Rasa dhatu*.

### iii. Probable action on agni

In the combination, maximum percentage of the drugs like *Punarnava*, *Maricha*, *Shunthi*, *Chitraka*, etc. show *Dipana*, *Pachana* Property which improves the function of *Agni*. The *Churna* will stop the

further *Ama* production and help into breakage of basic Pathology. The yoga acts on 13 types of *Agni* mentioned in *Ayurveda*.

### iv. Probable action on ama

An *Ama* means un ripe and undigested *Anna rasa*. It needs proper *paka*. By the virtue of *Ushna veerya* (100% of total drugs) and *Dipana- Pachana* Property, *Aam pachana* will take place. This *Aampachana* causes *Strotomukh-vishodhana*. Drugs like *Punarnava*, *Maricha*, *Shunthi*, *Chitraka*, etc. are proved as a best *Amapachaka*. So the yoga will act on the *Ama*

Among the ingredient of *Punarnavadi Churna* *Punarnava*, *Maricha*, *Pathya* & *Bilva* these 4 drugs are *Sodhana* drug. Besides thus, *Punarnavadi Churna* consists prevalence of *Adhobhagahara Shodhana* drug. Only *Sharpunkha*, *Sunthi*, *Chitraka* & *Chirbilva* are *Shaman* drugs but included in *Yoga* as a *Dipana – Pacana* and *Lekhana* drugs. All the *Sodhana* drugs have properties like *Suksma*, *Tiksna*, *Usna*, *Laghu* etc. which

made them potent *Lekhana–Chedana* drug. The deficient quantity of *Sodhana* drug because *Punarnavadi* is a *Shamana Yoga*, Generates *Anulomana* action in spite of *Virechana*. So it acts by

- Eradication of *Ama* by *Lekhana-Chedana* action from *Grahani Adhistan* and *Pakvashya*.
- Expellation of dislocated *Ama* from body / *Adhithana* by *Anulomana* action combine disintegrates *Sanchitta Dosh* in *Grahani*. This pacifies the symptomatology of *Annavaha Srotodusti Laksana*.
- In addition, *Sodhana* drug possesses in caliber to access in deep region of *Dhatus*. This provides ability of eradication of systemic *Ama* by *Punarnavadi Churna*. This systemic eradication of *Ama* alleviates the systemic symptoms.

### Probable Mode of the Action of Kallingadi Churna:

*Acharya Charaka* states that, certain drugs act through *Rasa*; some through *Veerya*; some through their

*Gun*s; some through their *Vipaka* and some through their *Prabhava*.



**i. At the level of *Dosha*:**

Because of its *Laghu, Ruksha - it subsides the aggravated Kapha. While,*  
*Guna and Katu, Tikta - Rasa (dominant by Ushna Veerya & Tikshna Guna it*  
*with Agni, Vayu and Akasha Mahabhuta) counteracts Vata.*

**ii. At the level of *Agni*:**

By virtue of its *Tikshna Guna Katu - Tikta Rasa it stimulates Jatharagni*  
*which is predominant with Agni, Vayu which turn by turn stimulates all other*  
*and Akasha Mahabhuta. Ushna Veerya, Agnis.*

**iii. At the level of *Dhatu*:**

Due to *Katu, Tikta Rasa, Katu Ruksha, Tikshna, Snigdha Guna acts as*  
*Vipaka, Ushna Virya, Laghu, Ruksha, Agni Dipaka and also Amapachaka. Tikta*  
*TikshnaGunas drug brings down the Rasa and also Amapachaka. Tikta*  
*increased Rasa Dhatu to normalcy and due to equilibrium of Rasa, Madhura Rasa and*  
*Snigdha Guna nourish the Rasadi Dhatu. helps in reducing Sashleshma Mala*  
*Pravrtti.*

In *Grahani Roga*, mainly there is  
vitiation of *Agni*, usually *Mandagni* is  
seen. This ultimately results in *Ama*  
formation and also may lead to *Suktapaka*.  
*Kallingadi Churna* has properties like  
*Katu, Tikta Rasa, Katu Vipaka, Laghu,*

Thus, drug *Kallingadi Churna* acts  
on disease *GrahaniRoga* and helps to  
overcome disease process and provides  
beneficial action.

**CONCLUSION**

- Both *Punarnavadi Churna* and *Kallingadi Churna* were having significant improvement on all the parameters like *Muhu Baddha-Drava Mal Pravritti, Durgandhit-Picchil Mala Pravritti, Udgar Pravritti, Trishna, Arochak, Vidah* and on other associated symptoms of the disease *Grahani*.
- On the basis of all results obtained in the clinical study it can be concluded clearly that *Punarnavadi Churna* is more effective in comparison to the *Kallingadi Churna* in providing better cure to the patients of *Grahani*.

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**TABLES:**

**TABLE 1 CONTENTS OF *PUNARNAVADI CHURNA***

Sr.No	Name of Drug	Latin Name	Parts used	Proportion
1	<i>Punarnava</i>	Boerhavia diffusa Linn.	Root, Whole Parts, Seeds	1 Part
2	<i>Marich</i>	Piper nigrum Linn.	Fruit	1 Part
3	<i>Sharpunkha</i>	Tephrosia purpurea Pers.	Root, Whole Parts Kshara	1 Part
4	<i>Vishva</i>	Zingiber officinaleRosc.	Tuberous root	1 Part
5	<i>Chitrak</i>	Plumbago zeynalica Linn.	Skin of Root	1 Part
6	<i>Pathya</i>	Terminalia chebula Retz.	Fruit	1 Part
7	<i>Chirbilva</i>	Holoptelea integrifolia Planch.	Skin	1 Part
8	<i>Bilva</i>	Aegle marmelos Corr.	Root, Skin, Leaves, Fruit	1 Part

**TABLE 2 CONTENTS OF THE *KALLINGADICHURNA***

Sr.No	Name of Drug	Latin Name	Parts Used	Proportion
1	<i>Kutaja</i>	Holarrhena antydysentrica Linn.	Bark, flower, fruit, and seeds	1 Part
2	<i>Haritaki</i>	Terminalia chebula Linn.	Fruit	1 Part
3	<i>Ativisha</i>	Aconitum heterophyllum Wall.	Tuberous root	1 Part
4	<i>Vacha</i>	Acoru scalamus Linn.	Rhizome	1 Part
5	<i>Hingu</i>	Ferula narthex Boiss.	Exedute	1 Part
6	<i>Sauvarchala</i>	Black salt (eng)	Whole Part	1 Part

**TABLE 3 EFFECT OF THERAPY ON CHIEF COMPLAINS**

SYMPTOMS	Group	N	Mean		Mean Diff	% Relief	W	P
			BT	AT				
<i>MuhuBaddha/ Drava Mala Pravriti</i>	A	15	3.47	0.80	2.67	76.92	120	<0.001
	B	15	3.33	0.53	2.80	84	120	<0.001
<i>Durgandhit/Picchila Mala Pravriti</i>	A	15	2.33	0.20	2.13	91.43	120	<0.001
	B	15	3.20	0.53	2.67	83.33	120	<0.001
<i>Madhura /Tikta/ Amla UdgaraPravriti</i>	A	5	1.80	00	1.80	100	15	0.063
	B	4	2.25	00	2.25	100	10	0.125
<i>Trishna</i>	A	11	2.00	00	2.00	100	66	<0.001
	B	11	2.64	0.09	2.55	96.55	66	<0.001
<i>Arochaka</i>	A	6	3	0.33	2.67	88.89	21	0.031
	B	8	2.63	0.50	2.13	80.95	36	0.008
<i>Vidaha</i>	A	2	3	0	3	100	3	0.5
	B	2	3.5	0	3.5	100	3	0.5

**TABLE 4: EFFECT OF THERAPY ON ASSOCIATED SYMPTOMS**

SYMPTOMS	Group	N	Mean		Mean Diff	% Relief	W	P
			B.T.	A.T.				
<i>Pad Shotha</i>	A	5	1.80	0	1.80	100	15	0.063
	B	3	1	0	1	100	6	0.250
<i>TamPravesha</i>	A	10	2.6	0.3	2.3	88.46	55	0.002

	B	6	2	0	2	100	21	0.031
<i>Aalasya</i>	A	13	2.31	0.077	2.08	90	91	<0.001
	B	13	2.23	0.077	2.15	96.55	91	<0.001
<i>Jwara</i>	A	7	1.14	00	1.14	100	28	0.016
	B	5	1.4	00	1.4	100	15	0.063
<i>Praseka</i>	A	7	1	00	1	100	28	0.016
	B	4	2.5	00	2.5	100	10	0.125
<i>Bala Kshaya</i>	A	14	2.36	0.43	1.93	81.82	105	<0.001
	B	15	2.4	0.4	2	83.33	120	<0.001

**TABLE 5 :EFFECT OF THERAPY ON HAEMATOLOGICAL PARAMETERS OF THE PATIENTS OF *GRAHANI***

Lab. Findings(n=15)	Group	Mean score		% of Change	X	S.D.±	S.E.±	't'	P
		B.T.	A.T.						
Hb (gms. %)	A	10.33	10.79	4.52↑	0.47	0.42	0.11	4.30	<0.001
	B	10.1	10.56	4.55↑	0.46	0.42	0.11	4.22	<0.001
ESR(mm/hr)	A	51.33	39.33	23.38↓	12	12.51	3.23	3.71	0.002
	B	53.07	40.93	22.86↓	12.13	10.68	2.76	4.40	<0.001
WBC	A	7360	7166.67	2.63↓	193.33	1068.02	275.76	0.70	0.495
	B	7466.67	7273.33	2.59↓	193.33	839.61	216.79	0.89	0.39

**TABLE 6 : GROUPS WISE OVERALL EFFECT OF THERAPY ON 30 PATIENTS OF *GRAHANI*.**

Results	Group-1		Group-2	
	No.	%	No.	%
Complete remission (100%)	04	26.67	04	26.67
Marked improvement (76-99%)	09	60	09	60
Moderate improvement (51-75%)	02	13.33	02	13.33
Mild improvement (26-50%)	00	00	00	00
Unchanged (= &< 25%)	00	00	00	00