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Published paper's title : EFFECT OF SATPUSHPA CHURNA AND NASYA IN KASHTARTAVA

(original research article)

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Research Paper

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EFFECT OF SATPUSHPA CHURNA AND NASYA IN KASHTARTAVA (original research article)

Dr. Sarita Mishra

Declaration

The Declaration of the author for publication of Research Paper in Asian Journal of Modern and Ayurvedic Medical Science (ISSN 2279-0772) I Dr. Sarita Mishra the author of the research paper entitled EFFECT OF SATPUSHPA CHURNA AND NASYA IN KASHTARTAVA (original research article) declare that ,I take the responsibility of the content and material of my paper as we ourself have written it and also have read the manuscript of my paper carefully. Also, I hereby give my consent to publish my paper in ajmams , This research paper is my original work and no part of it or it's similar version is published or has been sent for publication anywhere else.I authorise the Editorial Board of the Journal to modify and edit the manuscript. I also give my consent to the publisher of ajmams to own the copyright of my research paper.

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Abstract : A clinical trial was carried out on 60 Dysmenorrhoea [*Kashtaarva*] patients aged between 11 and 40 years having painful menstruations. The patients were registered from OPD of S.S. Hospital B.H.U. Varanasi .Study was done in three groups.In first group Mefenamic acid 500 mg twice a day for five day during menses was given and second group was treated with *Satapuspa churna* was administrated for three months in a dose of 3 g twice daily with milk for 3 month and third group patients were administered trial drug *Shatpushpa taila pratimarsha nasya*, 2 drops in each nostril in morning for 3 consecutive month. The specific investigations were done in order to exclude TB endometritis, endocrine disorders, diabetes and heart disease. The clinical assessment was carried out at every thirty days intervals and one month after completion of complete three month course of drug. It is inferred that the study discloses the effect of*satapuspa churna* on pain during menstruation [90.00%] improved and severity of pain [75.00] cured% which were highly significant in clinical study. No untoward side effect was noticed during clinical trial.

Keywords: Dysmenorrhoea, *Kashtaarva*, *Shatapushpa*, *Anethum sowa* Kurz., *Rajadushti*,*Upadhatu*, *Dhatwagni*

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Introduction

Woman's health is point of concern for her family, society and culture because any physical or mental disturbance can disturb her normal menstrual cycle

Most women experiences minor psychological and somatic changes for a

few days preceding menstruation and during the cycle. Once the menstruation is over, these menstrual melanoma will disappear leaving behind an anxiety free well beingness in the lady. When she has painful menstruation in fully blown up and exaggerated manner then it becomes difficult to her.

In Ayurvedic classics all gynaecological problems are described under the umbrella of Yonivyapada. The disease 'Kashtārtava' is not described in classics as well as in Vedas as an individual disease entity. Though it is a symptom of various Yonivyapadas specially Udavarta, Vatala, Sannipatika etc. It is one of the commonest gynaecological complaints. It is a Tridoshaja Vyādhi with Vata predominance. In this especially there is derangement of Apana and Vyana Vayu. The next consideration is the vitiation of Rasa Dhatu.

In the present study, Primary Dysmenorrhoea was considered as a classical feature and a part of disease Kashtārtava.

Primary Dysmenorrhea is painful menstrual cramps without any evident pathology to account for them, and it occurs in up to 50% of menstruating females and causes significant disruption in quality of life and absenteeism. The problems of acute cyclic and chronic pelvic pain encompass a large proportion of gynecological complaints. Cyclic pain refers to pain that occurs with a definite association to the menstrual cycle. Dysmenorrhoea or painful menstruation is the most common cyclic pain phenomenon and is classified as primary or secondary dysmenorrhoea on the basis of organic pathology.

In the present context, with an unbelievable progress done by modern medicine in the field of biology, understanding different types of physiological processes and hormonal feedback mechanism e.g. Hypothalamo-pituitary ovarian axis has helped in understanding the pathology of dysmenorrhoea in depths. But there is no change in the mode of management.

The current modalities of treatment for the management of dysmenorrhoea are only symptomatic and does not ensure permanent cure from the disease. NSAID's play a key role in the management protocol. The side effects of NSAID's are well known which restrict their use in many sensitive individuals. This has made the search more intense for effective herbal formulation in the dysmenorrhoea

After a thorough review of Ayurvedic literature Shatpushpa has been selected because of its ushna veerya, and anulomak guna, it pacifies vata and due to its yoni-shodhak and Artava-janana properties it helps in proper flow of menstrual blood. Acharya Kashyap has also advocated that Shatpushpa is very effective in various stri roga including Kashtartava; he also devoted a separate chapter for Shatpushpa to highlight its clinical importance. The disease "KashtÁrtava" is not described in classics as well as in Vedas as an individual disease entity. Though it is a symptom of various Yonivyapadas specially Vatala, Sannipatiki, Upapluta etc. It is one of the commonest Gynaecological complain, KashtÁrtava is a tridoshaja vyadhi with vata predominance. In this especially there is derangement of Apana and Vyana Vayu along with vitiation of Rasa dhatu, also. In the disease 'Kashtārtava' all the three Doshās are involved with predominance of Vāta. The probable mode of pathogenesis may be viewed as follows –

Vāta Doshā which is the leading Doshā in the disease may be vitiated or aggravated by three ways[i].

a) Due to indulgence of Vāta vitiating Āhāra – Vihāra.
b) Due to Dhatukshaya
c) Due to Margavarodh

Due to consumption of Vāta prakopaka ahāra – vihāra, the Vāta gets aggravated leading to Dhātu kshaya starting from Rasa and then Rakta. Thus there will be alpatā in upadhatu nirmāna[ii] i.e. Ārtava will be produced in less quantity then normal which will further vitiates Vāta doshā and it further produces kshobha in garbhāshaya, this stage resembles to ischaemic condition of the uterus resulting in pain this will lead to Toda and Vedanā (**Yoni – Stodanam Sa Vedanam Ārtava Pravritti).** This will continue as vicious cycle as Vāta vriddhi causes Dhatukshaya and vice versa.

The vitiated Vāta by Ruksha, Sheeta, Sukshma properties spread through Rasavaha Srotasa and leads to Rasavaha, Raktavaha and Ārtavavaha Srotodushti. Doshā – Dushya sammurchhana takes place in garbhāshaya and due to vitiation of Vyana and Apāna vāyu the Ākunchana and Prasarana Kriya of Garbhāshaya does not take place properly, this state resembles with the dysrhythmia of uterine muscles, which will hinder in proper flow of menstrual blood leading to Kashtārtava.

The Sara, Drava, Ushna, Tikshna properties of vitiated Pitta plays an important role in the sthanika Rakta vriddhi with the help of Vyana and Apāna vāyu. Raja contents like cellular debris etc. will be increased in uterus and discharged. So vitiated pitta along with vitiated vyan and apana vayu result in Kashtartava

The vitiated Kapha due to its Snigdha, Guru, Pichchhila and Abhishyandi gunas impairs the Agni and causes Jatharagni and Dhatvagni mandhya. That will produce the condition similar to Ama. A sort of upalepa is produced over the Ārtavavaha srotasa which leads to Ārtava pravritti avarodha or painful flow of Ārtava. The drug having Agnivardhni, Rutupravartani, Yoni-Shukra Vishodhini, Ushana, Vataprashamani and Anulomak properties, will be useful in Kashtartava.

Many drugs mentioned in classics are having above properties. Few of these have been tried satisfactorily in controlled & planned clinical study.

Acharya has explained that SHATPUSHPA having Agnivardhni, Rutupravartani, Yoni-Shukra Vishodhini, Ushana, Vataprashamani and Anulomak property properties, which are useful in Kashtartava .[iii]

मधुरा बृंहणी बल्या पुष्टिवर्णाग्निवर्धनी।

ऋतुप्रर्वतनीधन्या योनिशुक्रविशोधनी उष्णा वातप्रशमनी.....शतपुष्पानिदर्षितः।।

Aacharya Kashyap has explained the utility of Shatpushpa in various Stri Roga So keeping this idea in mind, SHATPUSHPA CHUNRA have been selected for present study.

The aim of this study is to establish an Ayurvedic medication as a remedy of *Kashtaartava* in reproductive life of women which mimics the normal life span of present era.

Materials and Methods

Selection of patients

Thirty Dysmenorrhoea [*Kashtaarva*] patients of age group 11 to 40 years, complaint with painful menstruation, were enrolled from OPD of S.S. Hospital B.H.U. Varanasi . Detailed history, complete general systemic and gynecological examinations done. The patients diagnosed as tubercular endometritis, poly cystic ovarian syndrome, thyroid, pituitary and hypothalamic abnormalities, general diseases like tuberculosis, nephritis, diabetes, VDRL, and heart diseases were excluded from this clinical study. All selected patients were advised to attend in 30 days interval regularly for three months. During the follow up time, all

required investigations were also recorded.

Selection of drugs

The drug *Shatapushpa* seed in the form of *churna* has classical reference of *Kashyapa samhita* in *Kashtartava* (dysmenorrhoea) with *Anupana of dugdha* (cow milk). In order to prove this, the aforesaid clinical trial was done.
The *Shatapushpa Churna* was purified properly and powdered by the help of mortar and pestle and was kept in a new earthen jar with air tight for use of clinical trial. three grams of *Shatapushpa Churna* thrice daily in empty stomach with 20 ml *cow milk* was administrated in selected patients for three months and second group was treated with Mefenamic acid 500 mg twice a day for five month during menses.. All patients were advised to take same diet till the end of trial.

Investigations

- Hemoglobin estimation in gram percentage by Sahali's method.
- Total leucocytes count, Differential leukocyte count - By Neubar's chamber.
- Stool examination for ova and cyst.
- U.S.G. of lower abdomen specifically for condition of uterus and adenexa and to exclude any pelvic pathology.

Assessment of progress

Two parameters - subjective and objective, were used in initial and consecutive follow up time for assessment of progress. The subjective parameters were interval of menstruation, duration of menstruation and pain through out menstruation period. The objective parameters were amount of blood flow by using pad, hemoglobin in g% . The assessments were separated by grading 0, 1, 2, 3, on the basis of days of interval, duration and painful menstruation .

Overall effect of therapy

In view of changes in grade of clinical features, it was declared as follows-

Complete cure 100% free from chief complaint (irregular, scanty and painful menstruation and pain in back and lower abdomen)

Maximum improvement - 75% to <100% improvement of the clinical features.

Moderate improvement - 50% to < 75% improvement of the clinical features.

Mild improvement - 25% to <50% improvement of the clinical features. No improvement - <25% or no improvement in both subjective and objective parameters.

Observation and Results
It was observed that out of 60 patients maximum number of patients (45.00%) was enrolled at the age from 21 to 25years [Table 1]. The unmarried [Table 2] and middle class economical status patients [Table 3] were more affected with Dysmenorrhoea.

Severity of pain

In trial group B 75% patients get cured while 25% get improved. While in trial group C, 50% get cured, 45% get improved and 5% patients remained unchanged.

Whereas in control group A only 35% patients get improved while 65% remain unchanged.

Duration of pain

- In trial group B 10% patients get cured while 90% get improved.

- In trial group C 95% patients improved but 5% remain unchanged.
- Patients in control group A showed only 10% improvement were as 90% remain unchanged.

Associated sign and symptoms

- 45 % patients in trial group B showed improvement in associated complain and 50% get complete cured.
- Whereas 80% in group C got improvement while 20% had complete cure.
- In contrast control group A, recurrence rate was 100%.

Discussion

Here in present study *primary dysmenorrhoea* is taken with *Kashtartava*.

In ***Kashtartava*** there is mainly derangement of *vata dosha.* The cause of vitiation of vata are either *Dhatukshya* (improper nutrition) or *Margavarodha* (obstruction in shrotasa) [iv]. *Dhatukshya* is one of the cause of *Vata vriddhi* (especially its *ruksha* and *khara guna* get vitiated). Improper nutrition results *kshaya* of progressive *dhatus* along with its respective *updhatus*. As in case of *Kashtartava*, due to improper nutrition *Rasa* and its *updhatu rupa Artava* form in less amount. This *heena Artava* (in term of quantity) comes out with pain.

Dysmenarrhoea is defined as a severe painful cramping sensation in the lower abdomen often accompanied by other biologic symptoms including backache, pain in thighs and leg, headache, body ache, nausea, vertigo, nervousness etc, all occurring just before or during the menses.

As in all cases of *Kashtartava* , *vata prakopa* is the main factors, so the treatment should be directed to the pacification of vata and eradication of cause by adopting different procedures like oleation, *basti,* application of medicated *pichu* and use of various *vata shamaka* medicines.

After a through literary research, it was found that *Shatapushpa* (***Anethum sowa***) is one of the drug that is having *vata shamak guna, ushna veerya, yoni shodhaka* and *anulomak karma* is very effective in *Artava dushti*.

Nasal route is considered as *shirodvara*[v] *Acharya Kashaypa* has advised the use of *Shatpushpa tail nasya* in *Artava dushti. Shatpushpa tail pratimarsha nasya* has been used in present study because *pratimarsha nasya* can be given in every season and every day without any complication, it pacifies the vitiated *doshas* Aacharya Kashayapa has also specified that due to its katu tikta rasa, ushna veerya, snigdha and anulomak guna and yoni shodhak property, it is effective in kashtartava.

In reference of vata vriddhi due to Vata-vardhaka ahara-vihara, modern researches has also suggested that environmental factor causing nervous tension and psychogenic causes are responsible for pain because due to all these factors *Hormonal imbalance, increase prostaglandine production* and *imbalance of autonomic nervous system* takes place that further leads to *imbalance in estrogen : progesterone level, elevated basal tone of uterine muscles, elevated active pressure* along with *nonrhythemic or incoordinated uterine contractions,* that is govern by neuronal impulse at myoneuronal junction. Shatpushpa due to its *snigdha guna, ushna veerya* and *medhya* properties pacifies vata and help in reduction of pain modern clinical studies has also shown that shatpushpa is having effect on *estrogen level*[vi]*, antispasmodic activity*[vii] *decrease in prostaglandine production*[viii] *,antioxidant property*[ix] along

with these properties it has its effect on central nervous system[x] and have *antistress property*[xi].

Also because of *yoni shodhaka* and *Artava janana* property of shatpushpa churna, initially 40% patients having moderate flow increased upto 95% after treatment showed improvement in menstrual flow probably by regularising hypothalno pituitary ovarian axis.

Furthermore, the katu, tikta rasa, ushana veerya, deepana, pachana and anulomaka guna, all of these regulates the gastrointestinal system and thus give a marked relief in associated sign and symptoms which are mainly related to GIT.

Due to its snigdha guna, ushna veerya, and vata shamak property it pacifies vata which is responsible for generalized body symptoms related to vata such as Backack, pain and thigh and leg, fatigue, vertigo etc.

Shatpushpa tail pratimarsha nasya was choosen because drug can get easy access in brain by crossing blood brain barriar, can be given daily (because pratimarsha nasya can be given daily without any complication) and regularises menstrual cycle because Shatpushpa tail nasya has its effect on process of *Artavajanana*[xii] this action is probably due to effect of nasya on Hypothalamo pituitary ovarian axis.

Shatpushpa tail pratimarsha nasya have its effect on regularising the Hypothalmo pituitary ovarian axis.

Shatpushpa churna by its *Yonishodhak* property clear out margavarodha which is the most important factors of vata prokapa and resultant pain in kashtartava. Further more due to its *katu tikta rasa, ushna veerya and Anulomaka, deepana, pachana guna.*

So it can be say that both the trial drug has shown encouraging results in the treatment of *Kashtartava (Pri. Dysmenorrhoea*) and can prove a safe and effective herbal remedy for *Kashtartava (Pri. Dysmenorrhoea*).

Conclusion

In nutshell, this clinical study was conducted on the basis of the aforesaid parameters, and encouraging result was inferred by the treatment of Ayurvedic drug, *Shatapushpa Churna* in *Kashtaartava* patients. Being chief, easily available, effective, nontoxic and safe, the *Shatapushpa Churna* can be utilized in *Kashtaartava*. However, this is a preliminary study; further study is required to establish its action on hormones interference in menstruation. No untoward side effect was observed in this clinical study.

Acknowledgments

It is indeed a pleasing privilege for us to do this work due to constant co-operation of patients and department staff. The authors express heartiest thanks and indebtedness to them.

Table 1 The incidence of age groups (*n*=60)

Age (in yrs)	**Group A (N=20)**	**Group B (N=20)**	**Group C (N=20)**	**Total (N=60)**
11 – 20	6 (30.0%)	9 (45.0%)	5 (25.0 %)	20 (33.3%)
21 – 25	10 (50.0%)	4 (20.0%)	13 (65.0%)	27 (45.0 %)
26 – 30	4 (20.0 %)	3 (15.0%)	2 (10.0 %)	9 (15.0 %)
31 – 35	0 (0%)	3 (15.0%)	0 (0 %)	3 (5.0 %)
36 – 40	0 (0 %)	1 (5.0 %)	0 (0 %)	1 (1.7 %)

Table 2
The incidence of marital status (*n*=60)

Marital Status	**Group A (N=20)**	**Group B (N=20)**	**Group C (N=20)**	**Total (N=60)**
Married	5 (25.0 %)	10 (50.0%)	8 (40.0 %)	23 (38.33 %)
Unmarried	15 (75.0 %)	10 (50.0 %)	12 (60.0 %)	37 (61.66 %)

Table 3
The incidence of economical status (*n*=60)

Socio-economic Status	**Group A (N=20)**	**Group B (N=20)**	**Group C (N=20)**	**Total (N=60)**
High	0 (0%)	0 (0%)	3 (15.0%)	3 (5.0%)
Middle	20 (100.0%)	19 (95.0%)	17 (85.0%)	56 (93.3%)
Low	0 (0%)	1 (5.0%)	0 (0%)	1 (1.7%)

Table 4
The incidence of Prakriti of disease (*n*=60)

Prakriti	**Group A (N=20)**	**Group B (N=20)**	**Group C (N=20)**	**Total (N=60)**
Vata-pitta	9 (45.0%)	14 (70.0%)	11 (55.0%)	34 (56.7%)
Pitta-kapha	8 (40.0%)	2 (10.0%)	3 (15.0%)	13 (21.7%)
Vata-kapha	3 (15.0%)	4 (20.0%)	6 (30.0%)	13 (21.7%)

Table 5
The incidence of chronicity (n=60)

Duration of Chief Complaints	**Group A (N=20)**	**Group B (N=20)**	**Group C (N=20)**	**Total (N=60)**
<1 year	0 (0%)	3 (15.0%)	2 (10.0%)	5 (8.3%)
1 – 3 years	4 (20.0%)	3 (15.0%)	2 (10.0%)	9 (15.0%)
4 – 6 years	13 (65.0%)	8 (40.0%)	11 (55.0%)	32 (53.3%)
> 6 years	3 (15.0%)	6 (30.0%)	5 (25.0%)	14 (23.3%)

FOLLOW UP STUDIES A. Intensity of Pain

Table 6 : Showing incidence of intensity of pain in subsequent follow ups in control group A

Form of drug	**Grading**	**Initial**	**Ist Follow up**	**IInd Follow up**	**IIIrd Follow up**	**IVth Follow up**	**Friedman χ^2 Test**
Mephenamic Acid	0-3	0 (0%)	0 (0%)	2 (10%)	2 (10%)	0 (0%)	54.701 ± .000
	4-6	0 (0%)	17 (85%)	15 (75%)	15 (75%)	7 (35%)	
	7-10	20 (100%)	3 (15%)	3 (15%)	3 (15%)	13 (65%)	

Table 7 : Showing incidence of intensity of pain in subsequent follow ups in control group B

Form of drug	Grading	Initial	Ist Follow up	IInd Follow up	IIIrd Follow up	IVth Follow up	Friedman χ^2 Test
Churna	0 -3	0 (0%)	3 (15%)	4 (20%)	11 (55%)	15 (75%)	63.260 ± .000
	4-6	1 (5%)	5 (25%)	11 (55%)	9 (45%)	5 (25%)	
	7-10	19 (95%)	12 (60%)	5 (25%)	0 (0%)	0 (0%)	

Table 8 : Showing incidence of intensity of pain in subsequent follow ups in control group C

Form of drug	Grading	Initial	Ist Follow up	IInd Follow up	IIIrd Follow up	IVth Follow up	Friedman χ^2 Test
Nasya	0-3	0 (0%)	0 (0%)	1 (5%)	9 (45%)	10 (50%)	64.468±.000
	4-6	0 (0%)	3 (15%)	12 (60%)	11 (55%)	9 (45%)	
	7-10	20 (100%)	17 (85%)	7 (35%)	0 (0%)	1 (5%)	

B) OBSERVER'S GRADING Table 9 : Showing incidence of duration of pain in subsequent follow ups in control group A

Form of drug	Grading	Initial	Ist Follow up	IInd Follow up	IIIrd Follow up	IVth Follow up	Friedman χ^2 Test
Mephenamic Acid	0	0 (0%)	0 (0%)	2 (10%)	2 (10%)	0 (0%)	68.279 ±.000
	1	0 (0%)	10 (50%)	9 (45%)	9 (45%)	2 (10%)	
	2	6 (30%)	10 (50%)	9 (45%)	9 (45%)	9 (45%)	
	3	14 (70%)	0 (0%)	0 (0%)	0 (0%)	9 (45%)	

Table 10 : Showing incidence of Duration of Pain in subsequent follow ups in Trial group B

Form of drug	Grading	Initial	Ist Follow up	IInd Follow up	IIIrd Follow up	IVth Follow up	FRIEDMAN TEST
CHURNA	0	0 (0%)	0 (0%)	2 (10%)	2 (10%)	2 (10%)	64.790 ± .000
	1	0 (0%)	14 (70%)	16 (80%)	18 (90%)	18 (90%)	
	2	17 (85%)	4 (20%)	2 (10%)	0 (0%)	0 (0%)	
	3	3 (15%)	2 (10%)	0 (0%)	0 (0%)	0 (0%)	

Table 11 : Showing incidence of Duration of Pain in subsequent follow ups in control group C

Form of drug	Grading	Initial	Ist Follow up	IInd Follow up	IIIrd Follow up	IVth Follow up	Friedman χ^2 Test
Nasya	0	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	62.103 ±.000
	1	0 (0%)	6 (30%)	9 (45%)	19 (95%)	19 (95%)	
	2	7 (35%)	3 (15%)	11 (55%)	1 (5%)	1 (5%)	
	3	13 (65%)	11 (55%)	0 (0%)	0 (0%)	0 (0%)	

C) AMOUNT OF BLEEDING Table 12 : Showing incidence of amount of Bleeding during Menses in subsequent follow ups in control group A

Form of drug	Grading	Initial	Ist Follow up	IInd Follow up	IIIrd Follow up	IVth Follow up	Friedman χ^2 Test
Mephenamic Acid	Heavy	3 (15%)	3 (15%)	3 (15%)	3 (15%)	3 (15%)	-
	Average	11 (55%)	11 (55%)	11 (55%)	11 (55%)	11 (55%)	
	Scanty	6 (30%)	6 (30%)	6 (30%)	6 (30%)	6 (30%)	

Table 13 : Showing incidence of amount of Bleeding during Menses in subsequent follow ups in control group B

Form of drug	Grading	Initial	Ist Follow up	IInd Follow up	IIIrd Follow up	IVth Follow up	Friedman χ^2 Test
Churna	Heavy	10 (50%)	7 (35%)	2 (10%)	0 (0%)	0 (0%)	21.067 ±.000
	Average	8 (40%)	11 (55%)	17 (85%)	19 (95%)	19 (95%)	
	Scanty	2 (10%)	2 (10%)	1 (5%)	1 (5%)	1 (5%)	

Table 14 : Showing incidence of amount of Bleeding during Menses in subsequent follow ups in control group C

Form of drug	Grading	Initial	Ist Follow up	IInd Follow up	IIIrd Follow up	IVth Follow up	Friedman χ^2 Test
Nasya	Heavy	3 (15%)	3 (15%)	1 (5%)	0 (0%)	0 (0%)	3.333 ±.504
	Average	16 (80%)	16 (80%)	19 (95%)	20 (100%)	20 (100%)	
	Scanty	1 (5%)	1 (5%)	0 (0%)	0 (0%)	0 (0%)	

Results

Result	Group A			Group B			Group C		
	VAS	OG	Associated Complaints	VAS	OG	Associated Complaints	VAS	OG	Associated Complaints
Cured	0 0	0 0	0 0	15 (75%)	2 10	11 55%	10 (50%)	0 0	4 (20%)
Improved	7 (35%)	2 (10%)	0 0	5 (25%)	18 (90%)	9 (45%)	9 (45%)	19 (95%)	16 (80%)
Unchanged	13 (65%)	18 90%	20 (100%)	0 0	0 0	0 0	1 5	1 5	0 0

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