

Research Article**EFFECT OF VIRECHANA KARMA (PURGATION) ALONE AND WITH AVIPATTIKARA CHOORNA & SHANKHA BHASMA IN TREATMENT OF PITTAJAPARINAMA SHOOLA (PEPTIC ULCER)****Pragya Singhal****Clinical Registrar, Dept. of Kayachikitsa, Ch. Brahm Prakash Ayurved Charak Sansthan, New Delhi, India.*

Received: 14-09-2016; Revised: 22-10-2016; Accepted: 26-10-2016

Abstract

To evaluate the efficacy of Virechana karma and combination of herbo-mineral drugs (Avipattikara choorna and Shankha bhasma) in the treatment of Pittaja Parinama shoola (peptic ulcer). The present study was undertaken on 17 patients, presented with clinical signs and symptoms suggesting of Pittaja Parinamshoola (pain in abdomen) associated with excessive of burning sensation in abdomen during the phase of digestion. Patients were randomly divided into two groups, named as Group A and Group B. In group A, ten patients were enrolled and were given combination of Avipattikara choorna 3g b.i.d. and Shankha bhasma 250 mg b.i.d. before meals for a period of one month. Seven patients of group B were administered Virechana karma (purgation therapy) along with combination of Avipattikara choorna 3 g b.i.d. and Shankhabhasma 250 mg b.i.d. before meals for one month. Group B showed better clinical improvement clinically and statistically in comparison to Group A. Thus Virechana karma (purgation therapy) is very effective in Pittaja Parinaam Shoola (Peptic ulcer disease).

Key words: Acid-peptic-disorder; Parinaamshoola; Peptic ulcer disease.***Address for correspondence:**

Dr. Pragya Singhal,
Clinical Registrar, Dept. of Kayachikitsa,
Ch. Brahm Prakash Ayurved Charak Sansthan,
New Delhi, India – 110 073
E-mail: pragyasinghalagarwal@gmail.com

Cite This Article

Pragya Singhal. Effect of virechana karma (purgation) alone and with avipattikara choorna & shankha bhasma in treatment of pittajaparinama shoola (peptic ulcer). Ayurpharm Int J Ayur Alli Sci. 2016;5(10):128-136.

INTRODUCTION

Parinaamshoola is a commonly encountered disease of Annahavaha srotas (upper gastrointestinal tract). The disease has been foremost described in detail in Madhava Nidana. According to Madhavakara, Parinamshoola is a tridosha vyadhi in which pain during the phase of digestion is noted. ‘Bhukte Jeeryatiyata Shoolam Tadeva Parinamaja’. Thus pain is the cardinal feature of Parinaam shoola, which usually occurs during the digestion.^[1]

Madhav has described the predominance of Vata in Parinamshoola, as Vata is the causative factor in the generation of Shoola (abdominal pain). It is correlated with sympathetic nervous mechanism of sensation of pain in the abdominal visceral organ. According to Madhavakara, when Vata is provoked, it encompasses Kapha (phlegm) and Pitta (bile) hampers the function of both to a greater extent and produces the pain during the digestion of food. But according to Vijay Rakshita, pitta is the predominant Dosha in the pathogenesis of Parinaamshoola–Pittolbalam, as it (Pachaka Pitta) plays an important role during the period of digestion of food i.e. Parinamkala.

Further Parinaamshoola has been described into eight clinical subtypes, according to the vitiated Doshas.

Pittaja Parinaamshoola is a subtype of Parinaamshoola in which pain in abdomen during the digestion is observed primarily along with burning sensation. This clinical situation can be comparable with peptic-ulcer-disease (PUD). Peptic-ulcer-disease is the collective term used to include many conditions like gastritis, gastric ulcer, duodenal ulcer.

PUD remains a relatively common condition worldwide, with annual incidence ranging from 0.10% to 0.19% for physician-diagnosed

PUD and from 0.03% to 0.17% for PUD diagnosed during hospitalization.^[2]

Peptic ulcer disease is most commonly associated with Helicobacter pylori infection, use of acetylsalicylic acid (ASA) and non-steroidal anti-inflammatory drugs (NSAID's). The data show that the incidence of PUD has decreased over recent decades in many countries, most likely as a result of the decrease in *H. pylori* infection.

In peptic-ulcer-disease, excessive secretion of acid and pepsin or a weakened stomach defence is responsible for damage to the delicate mucosal lining of the stomach, oesophagus, and duodenum resulting in ulceration.

Clinical features of peptic-ulcer-disease are pain in upper abdomen after taking meals or during digestion. The pain is often described as burning or dull ache. Other symptoms varies from bloating after meals, heart burns, nausea or vomiting etc. less common symptoms include Haematemesis (blood vomiting) and melena (black tarry stools), which shows the severity of disease.^[3]

In the present study, two trial drugs have been selected for the patients of Pittaja Parinaama shoola i.e. Avipattikara choorna and Shankha bhasma. The Rogadhikara (disease indication) of Avipattikara choorna is Amlapitta (gastro-oesophageal reflux), which is a Pittaja (bile) predominant disorder^[4] and the trial drug Shankha bhasma is widely used in various GIT disorders. Thus it is assumed that the combination of Avipattikarchoorna and Shankhabhasma will be effective in the treatment of Pittaja Parinama shoola vis-a-vis peptic-ulcer disease.

Virechana (purgation) is a purificatory method which is useful in expulsion of excessive of pitta and is indicated in the treatment of Pittaja (bile) disorders like Pittaja Parinaama Shoola.^[5]

This study reveals the combined and comparative effect of Shodhana chikitsa (purificatory) and Shamana chikitsa in the treatment of Parinamshoola.

MATERIAL AND METHODS

This is a prospective, randomised clinical study conducted between the period of 2012-2013.

Aim of the study

The present study is intended to evaluate the role of Virechana (purgation therapy) and combination of Ayurvedic drugs in the management of Pittaja Parinaama shoola vis-à-vis peptic ulcer disease.

Diagnostic criteria

Patients are selected according to the following criteria:

- Patients were selected purely on the basis of signs and symptoms suggesting of Parinamshoola mentioned in Ayurvedic classics
- Patients have been included in the study after endoscopy
- Selected patients are investigated for various pathological investigations before and after the trial

Inclusion Criteria

- Patients between the age group of 18 years and 60 years
- Patients showing clinical signs and symptoms of acid peptic disorders like pain in epigastric region, heartburn, acid eructations, water brash etc.
- UGI Endoscopic findings suggestive of peptic ulcer disease (Gastritis/duodenitis or peptic ulcer)

Exclusion criteria

- Pregnant and lactating mothers
- Patients having gall bladder disease, pancreatic disease, worm infestation, cardiovascular and liver disorders.
- Malignant and complicated ulcers
- Patients below age 18 years and above 60 years

Criteria of assessment

Clinical signs and symptoms: Udarasula (pain in abdomen), Amlodgaara (Acid eructation), Haematemesis, Hrtkanthadaha (heart burn) etc. were assessed before and after the treatment. Clinical assessment was made by grading as 0,1,2,3 on the basis of severity.

Grading pattern for signs and symptoms

Udarshoola (pain in epigastrium)

- Grade-0: No Pain
Grade-1: Mild pain
Grade-2: Moderate pain
Grade-3: Severe pain

Hrtkanthadaha (Burning sensation)

- Grade-0: No complaint of heartburn
Grade-1: occasional complaint of retrosternal burning or epigastric burning
Grade-2: complaint of retrosternal or epigastric burning 1-2 times per day and relieved by food
Grade-3: Frequent complaint of epigastric and retrosternal burning

Amlodgaara (Acid eructation)

- Grade-0: No eructation
Grade-1: occasional feeling of sour and bitter eructation
Grade-2: two-three complaints of eructation per day
Grade-3: frequent complaint of eructation

Haematemesis

Grade-0: No blood in vomiting

Grade-1: occasional Haematemesis

Grade-2: Regular Haematemesis

Grouping of patients

Patients were randomly divided into two groups. Group A and group B.

Group - A: Ten patients were enrolled in Group A and were given Avipattikara choorna 3 g b.i.d. along with Shankha bhasma 250 mg bid for a period of one month

Group- B: Seven patients were enrolled in group B and were administered Virechana karma (purgation therapy) along with combination of Avipattikara choorna 3 g. b.i.d. and Shankha bhasma 250 mg. b.i.d. for a period of one month.

Treatment protocol

Two trial drugs were selected for the present study:

Avipattikarchoorna and Shankhabhasma. Ingredients of the trial drugs are listed in Table 1.

Plan of clinical study

Group A

Drugs with doses: Avipattikara choorna 3 g. b.i.d. and Shankha bhasma 250 mg b.i.d.

Mode of administration: Oral

Time of administration: Before meals

Duration: four weeks

Purificatory method: None

Group B

Drugs with doses: Avipattikara choorna 3 g. b.i.d. and Shankha bhasma 250 mg b.i.d.

Mode of administration: Oral

Time of administration: Before meals

Duration: four weeks

Purificatory method: Virechana karma (Purgation therapy)

Virechana Karma

The procedure of Virechana karma was performed in two steps.

1. Poorvakarma (the preparatory procedures)

Avipattikara choorna (3 grams twice daily) and Shankha bhasma (250 mg twice daily) before meals were started three days prior to the Snehapana for the purpose of Deepana and Pachana.

From fourth day Snehapana with Panchatitka Ghrit (oral administration of ghee) was given for 3-7 days as per the Koshtha (nature of bowel) of the patient until achieving features of adequate oleation. Ghritawas given starting with 25 ml on first day, and then gradually increased to 120 ml on last day, followed by Abhyanga (external application of oil) and Swedana (sudation) for next 3 days.

2. Pradhanakarma (main procedure)

Pradhan Karma means administration of Virechana drugs as per the disease, Bala (strength), and Koshtha of the patient. Ingredients of Virechana karma are listed in Table 2.

Anupana of Virechana decoction: Luke warm water; when Ichchabhedi rasa was administered normal water was advised.

Table 1: Ingredients of trial drugs

Drug	Procedure				
Shankhabhasma	Shankhabhasma purified with Nimbusatwa				
Avipattikarchoorna [Ref-Bhaishajya Ratnavali]	Triphala (Harada- <i>Terminalia chebula</i> , Bahera- <i>Terminalia belirica</i> , Amla- <i>Emblica officinalis</i>), Trikatu (Shunthi- <i>Zingiber officinalis</i> , Maricha- <i>Piper nigrum</i> , Pippali- <i>Piper longum</i>), Musta (<i>Cyperus rotundus</i>), vidalavana (type of Salt), vidanga (<i>Embelia ribes</i>), Ela (<i>Elettaria cardamomum</i>), patra (<i>Cinnamomum tamala</i>) Lavanga (Clove – <i>Syzygium aromaticum</i> – 11 parts)				
Trivrit (<i>Operculina turpethum</i>)	–	44	parts)	grams	
Sharkara (Sugar – 66 parts)					

Table 2: Ingredients of Virechana drugs

Ingredients	Quantity
Decoction prepared from :	
i) Haritaki (<i>Terminalia chebula</i>), Vibhitaki (<i>Terminalia bellirica</i>) and Amalaki (<i>Emblica officinalis</i>)	160 ml
ii) Amaltaspalmajja	10 g
iii) Powder of Katuki (<i>Picrorhiza kurroa</i>)	15g
iv) Powder of Trivrit (<i>Operculina turpethum</i>)	10 g
Castor oil	30 ml
Ichchabhedi rasa, if required	125-250 mg (1-2 tablets)

Virechana Vegas

Approximately ten to twelve Virechana Vegas (bouts) were observed for Samyak shuddhi Lakshana (symptoms of appropriate Virechana karma).

Samsarjana karma

Samsarjana karma (diet restriction) was followed for one week after Virechana karma, in which patients were advised to take light diet like Mudagadaal Khichari, Dalia etc. The combination of drugs (Avipattikara choorna and Shankha bhasma) was given during the period of Samsarjana kala (i.e. seven days) and continued up to one month.

Statistical analysis

The data obtained in clinical studies before and after treatment was expressed in terms of mean, standard deviation. Appropriate t test were applied to test the significance of comparative mean values of before and after treatment.

OBSERVATIONS

A total of seventeen patients were enrolled for the present study and maximum number of patients (i.e. Fifteen) were in the age group of 20-40 years. Thus indicating that Parinaamashoola is a disease of middle age. In this study eleven patients were male and six patients were female, showing the male predominance of the disease.

Fifteen patients had the habit of intake of VidahiAhara (spicy food). Maximum numbers of patients (nine) enrolled were having Pittaja and five patients were having Vatta-Pitta Prakriti. Thus Vidahi Ahara (spicy food) and PittajaPrakriti are considered as the aggravating factors of Pittaja Parinaama shoola (PUD).

This study reveals that the maximum number of patients (ten) affected with acid-peptic disorder belong to lower socio-economic group and fourteen patients belonged to the rural area.

The common clinical signs and symptoms observed among the patients were Kushishoola (pain in abdomen), Tiktamloudgara (acid eructation) and Hritkantha daha (burning in epigastrium), Utklesha (nausea / vomiting).

Pain in abdomen was the chief complaint invariably present in all patients which was either epigastric, right hypochondric or both. Complaints like acid eructation and burning in epigastrium was also present in almost in all the patients. Five patients were having episodes of bile vomitus. (Table 3)

Only one patient presented with recurrent episodes of blood in vomitus (Haematemesis).

In group A statistically highly significant ($p < .001$) improvement in pain in abdomen, burning sensation and sore eructation was observed after the treatment, and statistically significant ($p < .01$) improvement was observed in nausea. (Table 4)

Group B showed statistically highly significant ($p < .001$) improvement in all the sign and symptoms i.e. pain in abdomen, nausea, acid eructation and burning in epigastrium. (Table 4)

DISCUSSION

This study suggests that the patients with lower socio-economic group are more liable to the disease in comparison to upper socio-economic group. (Table 3) Several studies have advocated that *H. Pylori* infection is the main causative factor of peptic ulcer disease.^[6]

H. pylori infection is water borne disease, and patients who were not taking hygienic water were more prone to this disorder. Thus, it can be concluded that lower socio-economic group who does not have access to clean, hygienic water is more prone to *H. pylori* infection and peptic ulcer disease.

In this study, it was observed that most of the patients were having history of intake of NSAID's, spicy foods, and were smoking, taking alcohol etc. (Table 3) These types of habits are supposed to aggravate Pitta, resulting in increased secretion of acid-pepsin, which may further break the mucosal wall of the stomach and duodenum, thus causing ulceration.

Maximum number of patients was in the age group of 20-40 years, which suggests that peptic ulcer disease is a disease of middle age. Ayurveda, also considers middle age as the pitta Prakopakala (bile aggravating season).

The present study also showed that males were more prone to Parinaamashoola in comparison to females. Several studies have also suggested the male predominance in peptic ulcer disease.

Though, both the groups showed statistically significant improvement in their clinical signs and symptoms, but the mean improvement in clinical signs and symptoms of group B was more than that of group A.

Thus, the combination of herbo-mineral drugs (Avipattikara choorna and Shankha bhasma) is a popular and effective combination in the management of Pittaja Parinaama shoola (PUD).

Virechana karma along with this combination of herbomineral drugs (Avipattikara choorna and Shankha bhasma) is more effective in peptic ulcer disease.

Mode of action of drugs

Parinamshoola is basically a Tridoshaja Vyadhi of Mahasrotas (gastrointestinal tract) occurring in Pachyamanashaya. The aim of the treatment of Parinama shoola is to ameliorate the provoked Vata (wind), to alleviate the hyperactivity of Pitta (bile) and to normalize the Kapha (phlegm).

Table 3: Demographic profile

	Parameters	No of patients
Age		
(20-40)years		15
Sex:		
Male/Female		11/06
Habitat		
Rural		14
Urban		03
Diet		
Spicy food		15
History of medication with NSAID's		06
Addiction		
Smoking		05
Alcohol		02
Socio-economic status		
Lower:		10
Prakriti		
Pittaja		09
Vatapittaja		05

Table 4: Effect of therapy on clinical signs and symptoms

S. No.	Clinical parameters	BT ±SD	AT±SD	paired t test	P value	BT±SD	AT±SD	paired t test	P Value
		Group A				Group B			
1.	Udarshoola (Epigastric pain)	2.30 0.67	1.60±0.52	4.58	P<.001	2.14±0.69	0.71±0.49	7.0	P<.001
2.	Amlodgar (Dyspepsia)	2.10±0.74	1.30±0.82	6.0	P<.002	1.86±0.69	0.57±0.53	6.9	P<.001
3.	Hrtkanthadaha (Heart burn) Utklesh	1.90±0.74	1.20±0.63	4.58	P<.001	1.86±0.69	0.71±0.76	8.0	P<.001
4.	(Nausea /vomiting)	0.90±0.74	0.40±0.52	3.0	P<.01	0.86±0.69	0.14±0.38	3.8	P<.001

In Parinama shoola, various purificatory measures have been employed by different authors. Langham (fasting) is the first modality of treatment followed by Vamana (emesis), Virechana (purgation) and Basti (medicated enema) in Kaphaja, Pittaja and Vataja Parinama shoola respectively.^[5] These are the purificatory methods by which vitiated dosas are expelled out from the body.

Virechana karma (therapeutic purgation) is one of the Panchakarma therapies, which eliminates excessive vitiated Dosha in general and Pitta Dosha in particular from the body through the anal route. Virechana (purgation) is not merely the treatment of Pitta, but it also alleviates the vitiated Vata from its Sthana i.e. Pakwashaya (large intestine and colon).^[7]

The trial drug Avipattikara choorna contains fourteen ingredients (Table 1), having Lavanga (*Syzygium aromaticum*), Trivritta (*Ipomea turpethum*) and Sharkara (cane sugar) as the main ingredients.

Avipattikara choorna is effective in Urdhwaga amlapitta (acid-peptic disorders with upper gastro intestinal features).^[8]

Avipattikara choorna acts mainly by its Deepana (improving appetite). Pachana (improving digestion) and Saraka Guna (stool loosing property), which normalizes the vitiated Pitta and eliminates the extraPitta (bile/acid) from the body by its laxative action.

Research evidence shows that Avipattikara choorna possess significant gastroprotective activity.^[9] An experimental study also suggests an anti ulcerogenic effect of Avipattikara choorna.^[10] An experimental study shows that hydroalcoholic and methanolic extract of stem bark of *Operculina turpethum* (one of the main ingredient of Avipattikara choorna) possess enhanced ulcer preventive and protective activities when compared to ranitidine.^[11]

Shankha bhasma is a popular Ayurvedic formulation indicated in gastrointestinal problems like hyperacidity and indigestion.^{[12][13]} Some studies, also suggest the anti-ulcerogenic effect of Shankha bhasma.^[14] Thus, Shankha bhasma proved to be effective in Parinaama shoola.

CONCLUSION

Avipattikara choorna and Shankha bhasma are provenayurvedic formulations for acid-peptic-disorders. This study also showed the anti-ulcerative action and was very effective in Pittaja Parinaama shoola. Group B showed better improvement in comparison to group A, suggesting that purificatory method like

Virechana Karma is very effective in Pittaja Parinaama shoola or peptic-ulcer-disease.

REFERENCES

1. Madhavkara. Madhava Nidanam (Madhukosha Sanskrit commentary). Sri Sudarshan Shastri, Yadunandana Upadhyay, editors. 1st ed. Varanasi: Chaukhamba Prakashan; 2009. Shoola parinaama shoola annadrava shoola nidanam, 15-16. p. 521.
2. Sunge JJY, Kuipers J, El-Serag HB. The global incidence and prevalence of peptic ulcer disease. Alimentary pharmacology and therapeutics. 2009;29(9): 938–946.
3. Fauci AS, Braunwald E, Kasper DL, Hauser SL, Longo DL, Jameson JL, et al., editors. Harrison's Principles of Internal Medicine. 17th ed. New York: McGraw Hill; 2005. p.1751.
4. Govind das. Bhashajaya Ratnavali (Vidyotinihindi commentary). Ambika dutt Shastri, Rajeshwar dutt Shastri, editors. 13th ed. Varanasi: Chaukhamba Sanskrit Sansthan; 1999. Amlapitta chikitsa, 25-29. p.644.
5. Laxmipati Shastri. Yoga Ratnakar (Hindi Commentary). Brahmshankar Shastri, editor. 1st ed. Varanasi: Chaukhamba Prakashan; 2009. Uttarardha, Parinaama Shoola Roga chikitsa, 2. p.13.
6. Fauci AS, Braunwald E, Kasper DL, Hauser SL, Longo DL, Jameson JL, et al., editors. Harrison's Principles of Internal Medicine. 17th ed. New York: McGraw Hill; 2005. p.1749.
7. Vaghbhata. Astanga Hridya (Nirmala Hindi commentary). Brahmanand Tripathi, editor. 1st ed. New Delhi: Chaukhamba Sanskrit Prathisthan; 2009. 13/1. p.185.
8. Gouri Chauhan, Arun Kumar Mahapatra, Kapoor Alka Babar, Abhimanyu Kumar. Study on clinical efficacy of Avipattikar choorna and sutasekar rasa in the management of urdhwagaamlapitta. Journal of Pharmaceutical and Scientific Innovation. 2015;4(1):11-16.
9. Sudesh Gyawali, Gulam Muhammad Khan, Shreekrishna Lamichane, Jaya Gautam, Saurav Ghimire, Rashmi Adhikari, Reshma Lamsal. Evaluation of Anti-Secretory and Anti-Ulcerogenic Activities of Avipattikar Churna on The Peptic Ulcers in Experimental Rats. Journal of clinical and diagnostic research; 2013;7(6):1135–1139.
10. Aswatha Ram HN, Ujjwal Kaushik, Prachiti Lachake, Sreedhar CS, Sathynarayana B. Antiulcer activity of aqueous extract of Avipattikar choorna. Pharmacology online; 2009;1:1169-1181.

11. Vidya Ignatius, Madhusudan Narayan, Venkataraman, Subramanium, Balasubramanyam, Maruthaiveeran Periyasamy. Antiulcer activity of Indigenous plant *Operculina turpethum* Linn. Evidence based Complementary and Alternative medicine; 2013: ID 272134.
12. Anonymous. The Ayurvedic Formulary of India, Vol. 1. 2nd ed. New Delhi: Govt. of India, Ministry of Health and family planning, Dept. of Health; 1978. p.192.
13. Anonymous. The United States Pharmacopeia. 22nd ed. Easton: Mack publishing Co.; 1990. p. 1624.
14. Pandit S, Sur TK, Jana U, Bhattacharya D, Debnath PK. Anti-ulcer effect of Shankha Bhashma in rats: A Preliminary study. Indian Journal of Pharmacology 2000;32:378-380.

Source of Support: Nil

Conflict of Interest: None Declared