



COMPREHENSIVE STUDY OF GUDA MARMA AND ITS APPLIED ASPECT

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ABSTRACT

Aims and objectives: To establish the vitality of Guda Marma, Survey quality of life of patients in Arsha, Parikartika, Bhagandara and healthy Volunteers. **Study design:** Observational study. Source: Patients of Arsha- 34, Patients of Parikartika- 33, Patients of Bhagandara- 31, Healthy volunteers- 33, Specially designed questionnaire Performa and SF-36 Form was used to determine quality of life of each group. **Results:** Acharya Sushruta consider Guda as a Sadhyapranahar Marma was justified. Anatomically Structures falling in the area of Guda Marma are Anus, Anal canal, Rectum, Sphincter muscles of anus, Levoter ani muscles, haemorrhoidal vessels, Nerve plexus supplying anus and surrounding tissues. Among anorectal diseases, complain of pain, bleeding, constipation, itching, burning sensation, discharge of pus and swelling etc. Were recorded and the effect of Parikartika, Arsha and Bhagandar on the physical, mental and emotional aspects of a patient's life which effect patients quality of life and showed statistically significant results. **Conclusion:** Guda Marma is one of the Sadhyapranhar Marma even though death is not commonly seen but qualities of life of patients of Arsha, Parikartika and Bhagandar is deteriorated. This concludes the vitality of Guda Marma.

KEY WORDS: Guda Marma, Sadhyopranhar Marma, Quality of life, Arsha, Paritika, Bhagandara.

INTRODUCTION

The study of Marma Sharira is an important part of Ayurvedic Rachna Sharir. The part of the body which on injury leads to mortality is called Marma. Marma is defined as the Sthana where Mansa, Sira, Snayu, Asthi, Sandhi meet together and according to Acharya Sushrut at the points of Marma "Prana" are situated that is why these points are called vital points.^[1] Sadyopranhara Marmas are said to be very important and injury to these structure cause sudden death. The Sadyapranahara Marmas are having the Agni Guna Pradhanya, the Agni Guna becomes immediate Prakopa by injury to the Marma Sthana due to the Agni prakopa that leads to sudden death.^[2] So if any injury to the Marma Sthana, there will be immediate death. Among the nineteen Sadyapranahara Marmas^[3], Guda Marma is one of the most critical Marma of abdominal locale to which is usually handled by a proctologist in their regular practice. It is the part that attached to large intestine and serves as the passage for stool and flatus. It also simultaneously consists of several structures and any harm to this Marma can prove to be dangerous or very predestined.

Pureeshdhara Kala is related to Guda and that is Moola of Pureeshvahasrotas.^[4] The diseases associated with

Guda are Arsha, Parikartika, Bhagandara, Gudavidradhi and Gudabhransha.^[5] As per Marma Ghata Lakshanas explained by Acharyas any injury or trauma to this structure is also very unnatural in nature when dealing with surgery if the rectal area is traumatized and can cause peritonitis, internal haemorrhage, septicaemia, toxemia, shock or even death.^[6] This defines its impulsive position and importance of carrying out complicated procedures in proctological diseases.

Large population in the world suffer from the anorectal abnormalities mainly by piles, fissure, fistula and a group of pathological conditions. There are conditions that cause significant patient distress, anguish and disability. It is included among the Astha Mahagada^[7] (eight great disease) because of the suffering it produces and also due to difficulty in its management. This anorectal problems has a big influence on overall quality of life of the patient. Piles is term that refers to the normal circumferentially located submucosal vascular beds above and below the anal canal with symptoms of bleeding, thrombosis, prolapse and possible rectal pain may be present. Fistulas are connections or channels like structure, between the surface of the anal canal and the exterior perianal skin. Fissure-in-ano is a tear in the

pectin (below the dentate line of the anal canal) caused by trauma from a hard amount of feces.

Lifestyle diseases are our human being creation and now becoming the major and most common cause of death and disability worldwide. Among them anorectal problems are one of them which makes human life despondent. Although anorectal problems are not fatal diseases, physical and psychological discomfort related with various symptoms of anorectal can appreciably influence quality of life (QOL) in a person with anorectal problems.^[8] By accepting healthy lifestyle and diet pattern everybody can solve their anorectal problems easily. The stigma or fear still associated among people by whom they are feeling shame for anorectal problems, They do not want to discuss their problems and unwilling to go to the doctor^[9], so it is important to know the factors involved in manifestation of it and to adopt healthy living pattern to prevent it. These disorders occur in peri-anal and perineal region, the seat of Sadyahprāṇahara Marma^[10] (vital area) and require proper management.

This is the most common disease ailment among anorectal disorders and the area of concern even since the Vedic periods. So in this survey study diagnosed cases of anorectal disorders were selected and compare with healthy volunteers. Ayurveda gives equal significance to mitigation of diseases as well as preservation of health. So there is an opportunity to build clinical and surgical interests how this disease triggers change in the quality of life of patients. The usefulness of this study is beneficial for academics, Marma Specialist and anorectal surgeons and can also give advice on how to increase quality of life in such cases.

MATERIAL AND METHODOLOGY

The methodology used for the study – A study based of comprehensive study of Guda Marma and its applied aspect. To establish the vitality of Guda Marma, survey quality of life of patients in Arsha, Parikartika, Bhagandara and healthy volunteers.

Plan of study

To fulfil the aims and objectives present study divided in to two parts

1. Conceptual study

Conceptual study was undertaken by data compiled from *Brihatrayis*, *Laghutrayis* and other classical texts including journals, presented papers, previous thesis works done and correlated, analyzed with the knowledge of contemporary science on the subject, Published latest and related thesis, journals, materials from the internet was collected.

2. Observational study

Clinical study was designed in following pattern; Ethical clearance was obtained from Institutional Ethics Committee prior to initiation of the study; Vide Ref. No. - PU/PIA/IECHR/2017/4 on 10/04/2017. This study is

registered in Clinical Trial Registry of India (CTRI; www.ctri.nic.in) vide CTRI Ref-/2019/07/020018. Sources was received diagnosed patients of each disease *Arsha*, *Parikartika* and *Bhagandar* and healthy volunteers from OPD of Parul Ayurved Hospital, Vadodara. Criteria were mentioned below:

Inclusion criteria

- 1) 15 to 45 age group of both gender.
- 2) All types of Hemorrhoids.
- 3) All cases of Fissure.
- 4) All cases of Fistula in ano.

Exclusion criteria

- 1) Age <15, Age >45
- 2) Crohn's disease and malignancy development.
- 3) Previously operated.

An informed written consent was obtained from all included subjects. The consent form was prepared in Accordance with the guideline of WHO Research Ethical Review Committee (ERC).

Parameters of study

Patients were divided in 4 different groups. A) Patients of *Arsha*- 34, B) Patients of *Parikartika*- 33, C) Patients of *Bhagandar*- 31, D) Healthy volunteers- 33. Specially designed questionnaire Performa and SF-36 Form was used to determine quality of life of each group.

The data was coded and entered into Microsoft Excel spreadsheet. Analysis was done using SPSS version 20 (IBM SPSS Statistics Inc., Chicago, Illinois, USA) Windows software program. The variables were assessed for normality using the Kolmogorov Smirnov test. Descriptive statistics included computation of percentages. Chi-square test used for qualitative data whenever two or more than two groups were used to compare. Level of significance was set at $P \leq 0.05$.

RESULTS

Maximum 48.5% patients belonged to age group 30-40 years in *Parikartika*, 50% patients in *Arsha* and 61.3% patients in *Bhagandar*. In the present study, most of patients have irregular defecation problem among all three groups i.e. 81.8% in *Parikartika*, 61.8% in *Arsha* and 64.5% in *Bhagandar* patients. In the present study, most of patients have hard consistency in toilet among all three groups i.e. 90.9% in *Parikartika*, 67.7% in *Arsha* and 58.1% in *Bhagandar* patients.

Parikartika

All of the patients in the present study reported moderate (57.6%) and severe (42.4%) pain found, burning sensation have found moderate (63.6%) and mild burning sensation (18.2%), irritation sensation have found mild (51.5%) and moderate irritation sensation (39.4%), *Vibandha* problem have recorded moderate (87.9%), *Aruchi* was observed moderate (36.4%) and mild (54.5%), and bleeding have found mild (48.5%).

Arsha

All of the patients in the present study reported *Vibandha* (97.1%), *Raktasrava* was observed mild (50%) and moderate *Raktasrava* (32.4%) of patients., *Arsha* bhransh was observed in 50% of patients, *Gudavedana* was observed mild (32.4%), *Gudakandu* have found mild (41.1%) in the patients. All the patients reported constipation as their chief complain which shows that in aetiopathogenesis of *Arsha* vitiation of *Apan Vayu* and disturbance of *Agni* are the main factors.

Bhagandar

All of the patients in the present study reported pus discharge moderate (58.1%) and mild (41.9%), swelling have found moderate (19.3%) and mild (16.1%), complaint of pain have recorded moderate (32.2%) and mild (32.2%), *Gudakandu* have found moderate (41.9%) and mild (32.3%) and *Vibandha* have found moderate (74.2%) in *Bhagandar* patients.

Quality of life**Limitation of activities domain**

- In *Parikartika* patients, vigorous (72.7%) and moderate (78.8%) activities, lifting/carrying activities (66.7%), climbing several flights of stairs (100%), climbing one flights of stairs (54.5%), bending/kneeling or stooping (87.9%), walking more than a mile (78.8%), walking several blocks (87.9%), walking one block (45.5%) complaint a little limited activities.
- In *Arsha* patients did have complaint in moderate activities (41.2%), lifting/carrying activities (52.9%), climbing several flights of stairs (47.1%), climbing one flights of stairs (94.1%), bending/kneeling or stooping (88.2%), walking several blocks (70.6%), walking one block (97.1%).
- In *Bhagandar* patient's vigorous (96.8%) activities, walking more than a mile (100%), walking severe mile (83.9%) and walking one block (80.6%) complaint have found.
- Healthy patients have climbing (2.9%) and walking more than a mile (8.8%) problem felt sometime.

Physical activities domain

- In *Parikartika* patients, less time for work (93.9%), accomplished less (93.9%), limited kind of work/activities (93.9%) and also difficulty in performing work/activities (93.9%) have found.
- In *Arsha* patients, less time for work (82.4%), accomplished less (88.2%), limited kind of work/activities (85.3%) and also difficulty in performing work/activities (79.4%) have found.
- In *Bhagandar* patients, less much time for work (90.3%), accomplished less (35.5%), limited kind of work/activities (6.5%) and also have found difficulty in performing work/activities (3.2%).
- Healthy patients did not have any complain.

Emotional activities domain

- In *Parikartika* less much time for work (93.9%) accomplished less (93.9%) did not do any kind of work carefully (93.9%).
- *Arsha* patients, less much time for work (85.3%), accomplished less (94.1%) and did not do any kind of work carefully (88.2%).
- *Bhagandar* patients did have (9.7%) complaints.

Social activities domain

- *Arsha* (44.1%) and *Bhagandar* (32.3%) patients as compared to moderate compliant in *Parikartika* (33.3%) patients.

Pain domain

- *Parikartika* patients (60.6%) have severe type of bodily pain.
- *Arsha* patients have mild (17.6%); and moderate, severe (20.6%) type of bodily pain.
- *Bhagandar* patients have mild (54.8%) and moderate (19.4%) type of bodily pain.
- Healthy patients had not any type of bodily pain complaints.

Energy and emotions domain

- In *Parikartika* patients feel full pep (30.3%), downhearted/blue (27.3%), worn out (30.3%), tired (36.4%) like complaints have found complaint.
- In *Arsha* patients feel full pep (50%), nervous (58.8%), felt dump (47.1%), a little bit calm (50%), downhearted/blue (47.1%), feel worn out (44.1%) and most of the time tired (55.9%) have found complaint.
- In *Bhagandar* patients feel full pep (64.5%), nervous (32.3%), felt dump (41.9%), a little bit calm (67.7%), feel a little bit worn out (58.1%) and a little bit time tired (80.6%) complaint.

Social activities and general health domain

- *Parikartika* (60.6%), *Arsha* (58.8%) and *Bhagandar* (58.1%) patients were feel worse life.

DISCUSSION

Maximum 48.5% patients belonged to age group 30-40 years, in *Parikartika*, 50% patients, in *Arsha* and 61.3% patients in *Bhagandar*. This is the age group when the individual is more active, enthusiastic and work hard to earn money for family without giving much time to personal health particularly to diet.

In the present study, most of patients have irregular defecation problem among all three groups i.e. 81.8% in *Parikartika*, 61.8% in *Arsha* and 64.5% in *Bhagandar* patients. Constipation is one of a causative factor for *Parikartika*, *Arsha* and *Bhagandar*. Patient will do more straining for expelling constipated stool and this will cause for the dilatation of the venous plexus.

In the present study, most of patients have hard constituency in toilet among all three groups i.e. 90.9% in *Parikartika*, 67.7% in *Arsha* and 58.1% in *Bhagandar* patients. Hard stool gives much more pressure on the valveless blood vessels of rectum during defecation and may create local trauma to the anal canal and it also creates over activity and spasm of anal sphincter muscle.

The aim of the study determining the effect of *Parikartika*, *Arsha* and *Bhagandar* on the physical, mental and emotional aspects of a patient's life. The SF-36 questionnaire measures HRQL with eight subscales: Physical Functioning (PF), Physical Role (RP), Bodily Pain (BP), General Health (GH), Vitality (VT), Social Functioning (SF), Emotional Role (ER), and Mental Health (MH).

Limitation of activities domain

- In *Parikartika* patients, vigorous and moderate activities limitation found because of sharp pain and burning sensation will sustain several hours after bowel movement, this cause limitation of activity.
- In *Arsha* patients limitation recorded due to exertion, straining or bearing down which can cause haemorrhoids to swell.
- Among *Bhagandar* patients, complaint like tenderness, discharge of pus, blood and stool from fistula opening may cause irritation while walking and other activities.
- According to *Acharya Charak*, ApanVata is situated in Adhoshakha, Basti, Medhra, Nabhi, Uru, Vankshan, Guda, lower part of trunk and intestine and suppression of natural urges, continuous sitting, running, jumping excessive walking, carrying heavy weight etc. are Prakopak Hetu for Apan Vata. Vitiated Apana Vata causes disease of *Guda* due to Vata Prakopa Situation get more worst in Anorectal disease. so patients try to avoid vigorous and moderate activities.
- Healthy patients also have climbing and walking problem just because of physical capacity.
- According limitation of activities domains, healthy showed statistically significant results with *Parikartika*, *Arsha* and *Bhagandar* just because of complaint (which were naturally came for that) were more recorded among all three anorectal disease.

Physical activities domain was harder and difficult in anorectal disease patients.

- In *Parikartika* patients, limited kind of work/activities and also difficulty in performing work/activities have found because of patient felt pricking pain.
- In *Arsha* patients also felt difficulty in performing work/activities due to protrusion of haemorrhoids and sometimes pain which can cause difficulty in sitting.
- In *Bhagandar* patients, difficulty in performing work but it was not as much complaint as much

Parikartika and *Arsha* patients felt just because of less physical pain.

- Pain is a distinctive symptom of *Vata*. Wherever a *Vata* involves in disease then it makes situation more painful. This kind of pain leads to limitation in Physical activity in day to day life.
- According physical activities domains, healthy showed statistically significant results with *Parikartika* and *Arsha* just because of complaint were more in disease except *Bhagandar*.

Emotional activities domain was same as Physical activities domain.

- In *Parikartika* and *Arsha* patients did not do any kind of work carefully complaints have found while in *Bhagandar* patients did not have much complaints.
- According to *Ayurveda*, *Sharir Vikara* also effect on Man. The sense organs and mind are controlled by *Vata* and disturbs in *Vata* leads to disturb state of mind. The anorectal disease also has psychosomatic presentation and psychological irritation causing limitation in emotional activities.
- According emotional activities domains, healthy showed statistically significant results with *Parikartika* and *Arsha* just because of complaint were more in the disease.

In social activities domain difficult in anorectal disease patients.

- Severe kind social activities with others have limitation found in *Arsha* and *Bhagandar* patients as compared to moderate type of compliant have found in *Parikartika* patients because in *Parikartika* patients comparatively feel relief after some hours of defecation.
- Vitiating of *Doshas* especially *Apana Vayu*, which is responsible for physiological functions of *Guda*^[11] (Ch.Chi. 14/9). *Sushruta* has made a passing reference of causes leading to vitiating of *Doshas*, posture which creates pressure on *Guda* region e.g. sitting on hard objects, riding on vehicles for long duration, suppression of normal urge of micturition and defaecation etc. other factors, which increase problems in anorectal disease so patients avoid to present social events and functions.
- The stigma or fear still associated whom they are feeling shame for anorectal problems: They do not want to discuss their problems.

In pain domain,

- Severe bodily pain with moderately least for 4 week in *Parikartika* patients because of cutting and burning pain.
- *Arsha* patients have minor complaint regarding to pain because there are no pain fibers attached to the veins above the pectinate line which produce less difficulty in routine day.

- *Bhagandar* patients felt pain occasionally because collection of pus make situation worse but after discharge of pus, there is no any severe pain.

In social activities and Pain domain, healthy showed much better life than anorectal disease patients.

Energy and emotions domain

- In *Parikartika*, *Arsha* and *Bhagandar* patients feel less energy and emotionally lower like complaints have found.
- *Bala* (strength) is mentioned as function of *Udan Vayu* which is type of *Vata*. *Vata Dosha* imbalance leads to loss of strength, weakness, loss of sleep etc. so patients feel tired.
- One other reason may be anaemia in *Arsha* patients due to bleeding patients have complain of worn out.
- In study, *Arsha* and *Bhagandar* patients were more emotionally attached than *Parikartika* patients. The reason behind this in *Parikartika* patients generally symptoms are terrible but not have long periods of time while in *Arsha* and *Bhagandar* symptoms have constant distress on patients.
- Energy and emotions domain was much better in healthy patients as compared to *Parikartika*, *Arsha* and *Bhagandar* patients.

Social activities and general health domain

- Healthy patients feel much healthier and enjoy fullness which improved normal life as compared to *Parikartika*, *Arsha* and *Bhagandar* patients.
- In general health domain, *Parikartika* (60.6%), *Arsha* (58.8%) and *Bhagandar* (58.1%) patients were feel worse life due to complain anorectal disease and healthy patients which showed statistically significant results.

In anorectal diseases complain of pain, bleeding, constipation, protrusion of pile mass, itching, burning sensation, burning sensation, discharge of pus, swelling etc. are recorded which effect patients routine life. The quality of life was affected by the factor like depression and self-perception. This was steady with other studies which measuring psychological and social outcomes significantly improved by successful treatment of anorectal disease.^[12] Therefore, it may be help about belief of anorectal disease to the population and they should have treatment to improve the quality of life which was disturbed by anorectal disease. Disease which are related to *Guda Marma* triggers the change in the quality of life of patients. Thus, anorectal disease was shown to influence HRQL negatively.

CONCLUSION

Based on conceptual study and observational study following conclusions are drawn.

- *Guda Marma* is *Mansa Marma* as well as *Dhamani Marma* which have following structures– Anus, Anal canal, Rectum, Sphincter muscles of anus,

Levoter ani muscles, Perianal fossa, Haemorrhoidal vessels, Nerve plexus supplying anus and surrounding tissues which reveals its complexity and immensely igneous nature.

- *Guda Marma* is one of the *Sadhyapranhar Marma* even though deaths are not commonly seen but quality of life of patients of *Arsha*, *Parikartika* and *Bhagandar* is deteriorated if not treated in time. This concludes the vitality of *Guda Marma*

This proves the relevancy of Sushruta's thought about vulnerability of *Guda Marma*.

Disclaimer: CTRI registration done this study is registered in Clinical Trial Registry of India (CTRI; www.ctri.nic.in) vide CTRI Ref-/2019/07/020018.

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