



**MANAGEMENT OF PANIC DISORDER THROUGH AYURVEDA: A CASE
REPORT**

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ABSTRACT

Panic disorder is one of the most debilitating anxiety disorders, is characterized by the recurrent and unexpected occurrence of panic attacks. Panic attack is an abrupt surge of intense fear that reaches a peak within minutes including an array of physical symptoms. The panic attacks cause persistent anxious apprehension often accompanied by maladaptive changes in behavior. Daily life can be greatly impacted by panic disorder, which can lead to people missing work, making frequent doctor appointments, and avoiding circumstances where they fear having a panic attack. In this case report, a 28-year-old male patient presented with episodes of chest tightness, giddiness, chest pain, palpitations, and a sense of panic that he was about to die of a heart attack for two months. The episodes started abruptly while the patient was doing work out at gym and continued with a frequency of one panic attack per week to three per week. The episodes occurred suddenly starting with chest tightness progressing to other symptoms lasting for 10 to 15 minutes and resolving by itself. The treatment protocol was planned with panchakarma therapies, internal medication, *Satvavajaya chikitsa* (~psychotherapy), *Yoga* and *Pranayama* along with Relaxation therapy. After treatment, the symptoms significantly improved and there were no episodes of panic attacks further. The Panic Disorder Severity Scale (PDSS) was used to evaluate the patient, and the score dropped from 15 before therapy to 1 after follow-up. Panic disorder can be efficaciously managed through a holistic Ayurveda approach of *Yuktivyapashraya* (~rational therapy) and *Satvavajaya chikitsa*.

**Keywords: Panic Disorder, Kalyanaka Ghritha, Satvavajaya chikitsa (~Ayurveda Psychotherapy),
Shodhana (~detoxification)**

INTRODUCTION

A panic attack is an abrupt, strong anxiety episode which is accompanied by a feeling of impending doom. The anxiety is characterized by discrete periods of intense fear that can vary from several attacks during one day to only a few attacks during a year [1]. Diagnostic and Statistical Manual of Mental Health Disorders (DSM-5) describes the panic disorder criteria as recurrent unexpected panic attacks followed by one month or more of persistent concern over having more attacks or their consequences along with a change in the behavior of the individual related to the attacks. Panic disorder is one of the most common anxiety disorders, with lifetime prevalence rates in the general population estimated to range between 2.1–4.7% [2]. Panic attack is characterized by a specific set of physical symptoms such as palpitations, pounding heart, or accelerated heart rate, sweating, trembling or shaking, sensations of shortness of breath or smothering, feelings of choking, chest pain or discomfort, nausea or abdominal distress, feeling dizzy, unsteady, light-headedness, or faint, chills or heat sensations, paresthesia (numbness or tingling sensations), derealization (feelings of unreality) or depersonalization (being detached from oneself), fear of losing control or "going crazy", and fear of dying. Panic disorder can significantly affect the quality of life leading

to depression and disability and makes the patients at a higher risk for alcoholism and substance abuse compared to the general population [3]. Evaluation based on Ayurveda parameters point towards vitiation of *Manas Dosha* (~mental regulatory functional factors), *Rajas dosha* (~dosha related to activity, initiation, action and attachment) and *Tamas* (~dosha characterized by darkness and ignorance) along with *sarira doshas* (regulatory functional factors of the body), *vata* (~dosha responsible for movement and cognition) and *pitta* (~dosha responsible for regulating body temperature and metabolic activities) leading to fear, anxiety, and agitation.

In this case report the patient presented with episodes of panic attack for 2 months causing fearfulness and in verge of avoidance of social events. The line of treatment is determined on the basis of *Yuktivyapashraya* (~rational therapy), and *Satvavajaya* (~psychotherapy) according to the general management of psychological disease.

Patient Information

A 28-year-old male patient, clerk by profession in the court, non-diabetic, non-hypertensive approached with complaints of episodes of chest tightness, giddiness, chest pain, palpitations and a feeling of terror that he was going to die of heart attack for 2 months. Each episode lasted for 10 to 15

minutes. The patient also presented with occasional burning sensation in abdomen, sour belching, difficulty in initiation and maintenance of sleep for 2 months. He was admitted in IPD care for further management.

The symptoms occurred for the first time when the patient was doing work out at gym, he was taken to hospital and a complete medical evaluation was done which revealed no sign of cardiovascular, pulmonary, or other illness. He was sent back with assurance. Due to fear the patient stopped attending gym. The episodes continued to occur once weekly then increased in frequency of 2 episodes per week and currently having 3 episodes since past one week. The episodes were unexpected, starting with chest tightness and gradually leading to all symptoms with intense fear. The episodes last for 10 to 15 minutes and resolve by itself. As the episodes had happened in movie theatre, in restaurants, on outing with friends, made the patient feel scared to go out sometimes and he started to avoid some social events. There was no history of psychiatric illness in family members.

Clinical findings

On examination, vital parameters were within normal limits (Blood Pressure- 120/80 mmHg, Pulse rate- 78/min, Respiratory rate- 16/min). On mental status examination the patient was cooperative,

well groomed, with normal gait and posture, maintained eye contact with fearful eyes. The speech was appropriate with decreased volume and soft tone. The mood was dull and affect was anxious. Thought and perception showed no impairment. The attention, concentration and memory were intact. His intelligence appeared normal and abstract thinking was present. The insight was present with grade 5 and judgement was intact. The Panic Disorder Severity Scale (PDSS) [4] score was 15 (suggestive of Markedly ill) before treatment.

Diagnostic Assessment:

On the basis of the symptoms and the diagnostic criteria of DSM 5 and ICD 11 it is diagnosed as *panic disorder*. There was vitiation of *Vata* and *Pitta* along with *Mano doshas Rajas* and *Tamas*. The patient presented with features of *Alpa satwa* (~low psychological threshold) which facilitate for the dosha vitiation. Electrocardiography was done to rule out arrhythmias or coronary heart diseases and USG abdomen and pelvis was done to rule out gastric ulcer, the reports found to be normal. The routine blood investigation, revealed no sign of abnormality.

Therapeutic Intervention

The treatment protocol includes *shodhana* (~detoxification therapy) and *shamana* (~palliative procedure) *chikitsa* along with *satvavajaya chikitsa* (~psychotherapy). The timeline of internal medication and

panchakarma therapies are mentioned in **Table 1** and *Vijnana, Jnana, Dhairya* and *Samadhi chikitsa* done under *satvavajaya*

chikitsa is mentioned in **Table 2**. The observations during and after treatment is placed in **Table 3**.

Table 1: Timeline of internal medication and panchakarma therapies

Duration	Treatment	Medicine
29/04/2022 to 1/05/2022	<i>Dhara</i>	<ul style="list-style-type: none"> • <i>Takradhara</i> (once in morning for 45 minutes)
	<i>Deepana and Pachana</i>	<ul style="list-style-type: none"> • <i>Sarvanga Udwarthana</i> followed by <i>sarvanga parisheka</i> with <i>Dashamoola Kashaya</i> (once in morning for 45 minutes) • <i>Panchakola Phanta</i> 50 ml trice daily before food
	<i>Shiropichu</i>	<ul style="list-style-type: none"> • 10 ml <i>Brahmi taila</i> dipped in a cotton swab was kept in vertex and tied with a bandage cloth. <i>Pichu</i> is kept for 4 hours.
2/05/2022 to 5/05/2022	<i>Snehapana</i>	<ul style="list-style-type: none"> • 40 ml <i>Kalyanaka ghritha</i> on 2/05/2022 • 70 ml <i>Kalyanaka ghritha</i> on 3/05/2022 • 120 ml <i>Kalyanaka ghritha</i> on 4/05/2022 • 180 ml <i>Kalyanaka ghritha</i> on 5/05/2022
6/05/2022 to 7/05/2022	<i>Vishrama kala</i>	<ul style="list-style-type: none"> • <i>Sarvanga Abhyanga</i> with <i>Moorchita taila</i> followed by <i>Bashpa Sweda</i> (once in morning for 45 minutes)
8/05/2022	<i>Virechana</i>	<ul style="list-style-type: none"> • 70 gm <i>Trivrut Lehya</i> and 100 ml <i>Draksha Kashaya</i> (once in morning)
29/04/2022 to 1/05/2022	<i>Yoga</i>	<ul style="list-style-type: none"> • Different <i>Asana</i> (<i>vajrasana, balasana, matsyasana, bhujangasana, dhanurasana and savasana</i>) done for 1 hour duration in the morning
29/04/2022 to 7/05/2022	<i>Pranayama and Progressive Muscular Relaxation</i>	<ul style="list-style-type: none"> • <i>Pranayama</i> (<i>Sooryabhedhi, Bhramari, Bastrika</i>) for 30 minutes in the evening • <i>Jacobson's Progressive Muscular Relaxation</i> – 45 minutes in the evening

Table 2: Satvavajaya chikitsa

Sessions	Purpose	Task given	Outcome
Session 1- <i>Vijnana chikitsa</i>	Detailed history taking To give awareness about the disease and Psychoeducation	To understand the disease condition To analyse thoughts before and at the time of panic attack to identify the triggers	Rapport was established Mis-conception about the disease was cleared
Session 2- <i>Jnana Chikitsa</i>	To develop an insight about himself and his disease condition	The triggers and fears regarding panic attack were identified and methods to tackle it were listed out.	Self-realization Increased confidence
Session 3- <i>Dhairya chikitsa</i>	To develop skills to reduce stress and managing panic attacks	Encouraged to do 5 sense grounding technique and Diaphragmatic breathing strategy	Increased confidence Better coping skills
Session 4- <i>Samadhi chikitsa</i>	To promote a calm response to emotional distress	Following Progressive muscular relaxation Hypnotherapy was done	Reduced fear and increased self-belief

Table 3: Observations

Sign & Symptom	Before Treatment	During Treatment	After Treatment
Panic attack	++	+	---
Burning sensation in abdomen	+	+	---
sour belching	+	---	---
Reduced sleep	++	+	---

Follow up and Outcome

The follow up was done after 15 days. The patient was given medications *Kalyanaka ghritha*- 10 ml twice before food and *Medhya vati*- 1 thrice after food on discharge. The Panic Disorder Severity Scale (PDSS) raw score was 15 at the time of admission, after treatment the score become 7 (suggestive of slightly ill) and at the time of follow up it became 1 (suggestive of Normal). (In PDSS a raw score of 9 and above suggest the need for a formal diagnostic assessment for panic disorder). There were no episodes of panic attack after discharge. The patient was able to handle stressful situations without panic and was more confident about attending social events. The affect was euthymic. The speech was adequate in quantity and maintained a normal tone. The initiation and maintenance of sleep was improved and occasional burning sensation of abdomen along with sour belching was subsided.

DISCUSSION

The predominant symptoms indicate the vitiation of *Vata* and *Pitta doshas*. So, the line of treatment adopted are alleviation of *Vata* and *Pitta* such as *Takradhara* (~therapeutic butter milk -streaming over body), *Snehana* (~therapeutic oleation), *Swedana* (~sudation therapy) and *Virechana* (~therapeutic purgation). *Satvavajaya chikitsa* was adopted to restrain mind from unwholesome preoccupations

and trains to achieve balance over manas in dealing with environmental and emotional stressors [5]. As the patient was in a condition of panic in the beginning of admission, *Takradhara* was given for initial 3 days. *Takradhara* alleviates the derangement of the three Doshas and activates the functions of thalamus and the basal forebrain that normalizes serotonin and catecholamine level, thus causing tranquilizer effects. The prolonged *Dhara* therapy helps in reducing stress and anxiety by stimulating *Marmas* and improving blood circulation in brain [6].

On observation the patient is found to be having anxious personality traits [7] which may be the cause of stagnant doshas and acting as a *Viprakraushta nidana* (~distant causative factors). These stagnant doshas along with involvement of vitiated *Vata*, *Pitta*, *Rajas* and *Tamas* makes the condition *Bahudoshaja* in origin. Hence *Shodhana karma* is adopted in the treatment protocol. *Sarvanga Udwarthana* (~whole body therapeutic powder massage) followed by *Sarvanga parisheka* (~ whole body sudation by streaming of pre-warmed liquid) with *Dashamoola Kashaya* and *Deepana pachana* with *Panchakola phanta* was given to improve digestive fire and metabolism prior to *Shodhana* [8]. *Udwartana* is *Vatahara* and it opens the minute channels and improves blood as well as lymphatic circulation [9]. *Parisheka*, a type of *Drava*

sweda (~sudation by warm liquid) [10] and *Sarvanga sweda* (~whole body sudation) improves autonomic functions [11]. *Dashamoola Kashaya* acts as *Ama pachana* and *Tridoshahara* as it is having *Tikta Kashaya rasa* and *Laghu guna* [12]. The combination of all these therapies prepares the body for the procedure of *Shodhana*.

Shodhananga Abhyantara Snehapana (administration of *Sneha dravyas* internally before the *Shodhana* procedure) was given for 4 days by assessing the *Samyak Snigdha lakshanas* [13]. It brings the Doshas situated in peripheral tissues to the *Koshta* (~viscera) by the action of *Sukhsma* (~penetrating), *Snigdha* (~unctuousness), *Drava* (~moistening) attributes and *Kledana karma* of *Snehana Dravyas* which reach up to the cellular level, increase the dosha causing Dosha liquification and pacifying the *Vata Dosha* [14]. *Kalyanaka ghritha* was taken as *Sneha dravya*. *Kalyanaka Ghrita* is a compound drug formulation having medicinal properties to pacify *Vata* and *Pitta Dosha* and it clears the channels of *Manovahasrotas* [15]. *Prana vata* (one of the five subtypes of vata that is seated in head) and *Sadhaka pitta* (one of the five subtypes of pitta situated in the *hrdaya*) regulates the function of manas and pacifying them results in controlling the irritable mind [16]. The Omega-3 polyunsaturated fatty acids (PUFAs), such as eicosapentaenoic acid (EPA) and

docosahexaenoic acid (DHA), are essential nutrients that have potential preventive and therapeutic effects on reducing anxiety symptoms [17]. The ghee prepared with traditional fermentation method have an increased DHA content along with fat-soluble vitamins, anti-oxidants, and conjugated linoleic acid (CLA) [18]. As the Blood–Brain Barrier (BBB) has a lipophilic molecular structure only lipid soluble (lipophilic) molecules with a low molecular weight can cross the BBB [19]. The drugs which are given in the form of Ghee due to its lipid base can quickly be absorbed through this barrier and act on symptoms. *Virechana* brings down the morbid doshas from *Shakha* to *Koshta* and due to *Prabhava* (~ specific action) expulsion of the doshas outside the body from the *koshta* takes place [20]. The microorganisms in the gut microbiota can influence immunological response, mood, and behaviour, in part by breaking down dietary components, creating a chemical dialogue between the microbiota, gut, and brain. Gut neuropeptides are strong neuroimmune modulators; they mediate the communication between the gut microbiota and the gut–brain axis [21]. Bidirectional communication between gut microbiota and components of the gut–brain axis influences normal homeostasis and dysregulated neurotransmission, altered HPA response, and damage to enteric neurons, results in an abnormal microbiome and can cause

increased anxiety [22, 23]. *Virechana* enhances the quantity of these neuropeptides in the body by cleansing the GI tract; as a result, it may have an impact on the brain and alter its various functions [24]. There was a significant change seen in the mood and behaviour of the patient during and after *Shodhana* procedure. *Shodhana* procedure has the benefits of improving emotional and cognitive functions. During *Snehapana* the patient became more receptive towards psychological therapies and there was growing involvement in each session. The fear and anxiety component decreased to a greater extent after *Shodhana*.

The patient had 3 sessions of yoga and 9 sessions of pranayama during the inpatient care. The practice of Yoga and pranayama reduces the constant activation of the sympathetic nervous system (SNS) and the hypothalamic–pituitary–adrenal axis (HPA) which produces chronic stress and anxiety. Yoga and pranayama lower arousal levels and SNS activity, activating antagonistic neuromuscular and limbic systems and contributing to a relaxing response [25]. Individualized *Satvavajaya Chikitsa* module focusing on *Vijnana* (~Educative approach), *Jnana* (~insight-oriented approach), *Dhairya* (~Supportive approach) and *Samadhi* (~Psycho-philosophical approach) *Chikitsa* were applied to identify and change panic causing thoughts, emotions, and behaviours [26]. *Satvavajaya chikitsa* was

done in 4 sessions on alternative days for one hour duration. Each session was targeted on specific outcomes mainly focusing on gaining insight and lowering the level of intense fear caused by panic attacks. After each session there was increase in confidence and self-belief. A significant change in the attitude towards life and concerning disease condition was observed. *Medhya vati* was given after *Shodhana* thrice daily for 15 days. *Medhya vati* is a multiherb formulation of *Shankhapushpi*, *Yashtimadhu*, *Guduchi* and *Mandukparni* and is having anxiolytic, tranquillizing, anti-stress, and antioxidant properties [27]. It promotes *Dhi* – ability to differentiate between emotions/understanding, *Dhriti* – ability to control actions, *Smriti*- ability to incorporate actions based on past experiences and thereby decreasing mental stress and enhancing all aspects of mental performance.

The treatments given showed a significant impact on the physical and psychological symptoms. The Panic Disorder Severity Scale (PDSS) scale raw score 15 at the time of admission reduced to 1 during follow up. During the follow up assessment the patient revealed not having any panic attack and a better functioning in social level. The patient was advised to continue oral medications for 1 month.

CONCLUSION

Recent incidents of overindulgence in physical activities like gym are preventing people from introspective psychological evaluation thus leading to anxiety and panic attacks. As panic disorder is a perilous condition having a chronic progression associated with decrease in the quality of life, an immediate intervention is necessary. Wholesome management of this condition through pharmacological and non-pharmacological interventions such as *Shodhana, Shamana, Satwavajaya chikitsa, Yoga and Pranayama* targets on improving coping skills, emotional stability and overall psychological wellbeing. The holistic approach provided a significant improvement in the associated physical symptoms. Early diagnosis and intervention benefitted the patient to recover completely.

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Conflict of Interest

There are no conflicts of interest.

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