

Review of Punravartak Jwara with Relationship to Recent Surge in Cardiac Death and COVID-19 Infection

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Abstract

The unprecedented 12.5% surge of sudden cardiac death has been reported after COVID-19 outbreak. Central health agency has opined that the COVID-19 vaccine has no relationship with this surge; but the sudden cardiac death with shift i.e. the sudden cardiac death of young in their 40 even with cases of sudden cardiac death in the age group of 20–40. This paradigm change in the prevalence is of serious concern as it affects the economically productive group. As per information available from all reliable resources vaccines is not found to be responsible for this change; so other probable reasons that may be ought to be searched for. Ancient Ayurveda text Charaka Samhita narrates that if a person indulges unwholesome or properly detoxed after pyrexial disease (even post disease phase i.e. post disease carrier phase) the morbid material further vitiates and may manifest in form of chronic long episode of pyrexia (in majority of cases most of biochemical markers may not be conclusive) or apyrexial problems that may be mild problems like itching, urticaria, etc. to severe medical conditions like organ failure. As per the pathogenesis narrated in Charaka Samhita the Ayurveda text describes that fever – pyrexial illness occurs due to obliteration of Rasa-Vaha and Sweda Vaha Srotos (sweat system); failing to detoxicating body after pyrexial illness or improper care in post pyrexial phase or indulging unwholesome diet – routine – stress may lead to detoxicating the Rasa (primary nourishing fluid → comparable with Plasma – body fluid) that leads to formation of obliteration or changes in viscosity of blood that may eventually lead to vascular accidents. There is sharp rise in incidence of other vascular disease along with sudden cardiac death has been reported after COVID-19 outbreak. Ayurveda seems to have probable answer. Detailed review is presented in the paper.

Keywords: Sudden cardiac death, COVID-19, Ayurveda, detoxification, vascular accidents,

INTRODUCTION

Global pandemic of COVID-19 has affected public and personal health in last three years. High incidence rate, high death rate in COVID-19 was the biggest problem and challenge before three year, scientists and medical experts worked a lot to come up with probable solution with antivirals and vaccine. After the pandemic of COVID-19 is considered over and the infectivity – incidence – death rate has considerable reduced but different medical seems to be emerging, amongst them sudden rise of unprecedent rise in cases of sudden cardiac death with paradigm change in the younger age group of 20 – 40. There is also surge in cases of vascular disease like stroke, osteonecrosis (avascular necrosis), etc.

As per the recent updates and information from different national and international medical agencies

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and medical expert the surge is not due to the use of vaccine, and on that basis the medical expert opines that the use of vaccine may not be the cause. But this surge is observed after the COVID-19 pandemic and inferential and circumstantial evidence suggests that the surge is due to COVID-19 infections.

The ancient Ayurveda text Charaka Samhita seems to have the probable answer to the medical problem. As per the text, the improper post disease care may lead to different medical problems that may be of mild form like urticaria to major medical problems that may prove to be life threatening too like vascular diseases or organ failure.

Use of antivirals, antipyretics, immune response modulators (steroids), oxygen support, and other life support may be required in the acute disease condition and specifically in serious ill patients and patients with cytokine storm, but the morbid atmosphere of the body may be in the form of free radicals, intermediate products of metabolism leads to improper restoration normal histological status and homeostasis this change in the body is responsible for the ongoing process of sequele of COVID-19 infection and this sequele may be in the form of vascular disease and cardiac death.

The article reviews the concept of Punravatak Jwara that may be the probable measure to combat the surge in cardiac death cases.

AIMS AND OBJECTIVES

Review paper on the Punravartak Jwara and its relationship with surge in cases of cardiac arrest is presented with following aims and objectives:

1. To study the relationship between the Punravartak Jwara and increased cardiac death as per concept of Charaka Samhita
2. To understanding the phenomenon of post COVID-19 sequele and Punravartak Jwara
3. To frame SOP of management of post recovery of COVID-19 cases
4. To frame SOP for management for patients suffered from COVID-19 infections

MATERIALS AND METHOD

Review of material and meta-analysis of data available by different reliable medical agencies and compering, understanding and interpreting Ayurvedic texts to come up with the understanding of the probable sequele of COVID-19 and Ayurvedic protocol of management.

REVIEW

Viral respiratory illness were dealt in pyrexial illness in ancient Ayurveda texts. As per fundamental of Ayurveda and disease classification it is named as Vata-Kapha Jwara (the three body humours and their interaction with body tissues leads to different variety of diseases, naming them all may not be possible but they can be managed as per understanding the pathological process and pathological change [1]. Other Ayurveda text Bhavprakash in 18th century narrated these fevers with different names and narrated their management. The disease that is caused due to infection COVID-19 virus (popularly known as COVID) were amongst the different viral respiratory illness characterized with cytokine storm and vascular changes leading to cardiac arrest eventually leading to death. This medical condition is comparable with the “*Yamya Sannipat Jwara*” narrated in Bhavprakash. The narration describes that amongst the three body humours of body (known as Tridosha) derangement of all three Doshas i.e. Vata, Pitta and Kapha in this disease Pitta is provoked in excess followed by Kapha and lastly Vata – as Pitta is dominating amongst all the three Doshas vitiation the changes may reflect as heightened immune response that is observed usually on 3-4 day typically in COVID-19 disease leading to obliteration of respiratory pathway leading to diminished oxygen concentration and changes in viscosity of blood that eventually leading to death. Furthermore the text narrates that the vital organs of the body also gets affected and chief presentation of the disease is high grade fever with respiratory changes, vascular changes later on producing target organ damage of vital organs of the body i.e. Hridaya (heart), Fuffusa (lungs), antra (intestine), and Yakruta (liver) [2].

This clinical entity may have grave outcome but there milder form of this illness that has been narrated without names by Charaka Samhita and the clinical entity has to be evaluated with body temperature and symptomatology (symptom, signs and biochemic – imaging markers) the pyrexial disease may have one out of the dual effect referred as Antarvega and Bahirvega in the former the body temperature may not be very high but the pathological changes within body and heightened host response results in respiratory distress, cerebral symptoms, dehydration, joint swelling, etc. [2]. This presentation in the disease is critical to manage and may have poor prognosis. It may typically lead to stage of Dhatu Paka that is considered as fatal sign in pyrexial condition. On the other part the immune or host response is not heightened and thus the patient has no grave signs but may have bit higher body temperature which is referred as Bahirvegi Jwara in Charaka Samhita [1].

Punravartak Jwara vis-à-vis Coronary Changes

As per narration of Charaka Samhita Failing to achieve the normal homeostasis – Prakruti Sthapana the morbid body Humours (Doshas) and body tissues (Dhatu) may show the adoptive changes (these changes are mostly pathological) but doesn't have phenotypical presentation like masked illness, subclinical illness or latent illness. The morbid body humours and tissues whenever gets favorable atmosphere – exposures to environmental stressors or mildest infection can lead to disease (pyrexia) or non-pyrexial problems like urticaria, rash, itching, malaise, lassitude, oedema – dropsy (target organ damage induced?), anemia (myelo-degeneration), and loss of enthusiasm. The morbid condition occurs due to involvement of Pitta, Rasa, Sweda, Rakta and the important pathological change is obliteration in Sweda Vaha, and Rasa Vaha. As the morbid Doshas doesn't return to their normal physiological state and retains their latent state leads to changes in biochemical characteristics of Rasa- Rakta (serum and blood). The basic pathological process involved in obliteration of Rasa and Sweda Vaha Srotos this continues further as the latent Doshas remains without being detoxified; this leads to changes in the vascular structure i.e. sheer pressure changes and increased coagulative properties of blood this bifactor with other environmental factors, diet, smoking, obesity, and stress eventually leads vascular accidents that may manifests as osteonecrosis, avascular necrosis, stroke, or MI and MI death [3, 4].

Treatment Protocol

Treatment protocol for pyrexial illness is as per the staging of disease (morbid condition) in the first stage i.e. Taruna Jwara Langhan i.e. therapeutic fasting is to be observed, in the second stage the protocol is to perform Pachana i.e. medication to counteract the pathological changes and in the third phase of resolution (Niram Jwara) medication to achieve completion restoration of pathological process to achieve normal homeostasis (Prakrutisthapana). When patient gets clinical recovery from raised temperature patient is treated with Virechan (therapeutic purification – as emesis or purgation) to achieve pathological recovery.

This protocol of “Jwaramukte Virechana” not only reduces the risk of public health as it helps to achieve pathological recovery by reducing the post disease carrier phase (which may be as long as few day – month in case of respiratory infection or as long as 1 year or more in various oral-fecal infection). As per narration in Charaka Samhita person recovered from pyrexial illness indulges unwholesome diet or routines or doesn't underwent purification process to detox then the disease may relapse with pyrexial or other extra apyrexial symptoms that may be mild like itching, rash to severe like target organ damage [5]. This clinical entity is coined the name Punravartak Jwara means the patient may experience recurrence (may be multiple) of pyrexial illness or other symptoms.

This clinical entity ought to be managed with the objective of achieving normal homeostasis i.e. Prakrutisthapana. This protocol for management as per Charaka Samhita is as follows [6].

1. *Purification* – detoxing by therapeutic purification (Vaman and Virechan)
2. *After purification therapeutic enema* – Basti (Yapana Basti)
3. Light digestive wholesome food in accordance to digestive strength
4. Yusha (soup preparation – for vegetarians and vegans) and Mansa Rasa (for non vegetarians)

5. Daily Abhyanga (massage with oils – Mahanarayana oil/Bala Taila/Til Taila), Udvartana (dry massage), Dhupan and Anjana
6. Unwholesome food, alcoholic beverages, processed food, food made of refined flour, quantity restriction and food taking longer time to digest (food getting digested within 4 hrs may be taken but food taking more than 6 hrs to digest not to be taken)
7. *Medication* – these medicines may be taken as single herb or its combination as per individual's constitution, disease severity, season, place patient live – Kiratikta (Swertia chirata), Tikta, Musta (Cyperus rotundus), Parpatak (Fumaria parviflora), Amruta – Guduchi (Tinospora quadrifolia), etc.
8. *Other medication includes* – Abhyadi Kwath, Tribhuvankirti Rasa, Sudarshan, Sudarshan Tablet. Maha Sudarshan Ghanvati, etc.

Summary

The post-COVID-19 surge in vascular accidents and cardiac deaths is concerning. Ayurveda, with its holistic approach, can be considered for post-febrile COVID-19 patients to reduce the chances of disease sequelae. The Punravartak Jwara described in the Charaka Samhita details various clinical manifestations, ranging from mild medical issues to severe and potentially fatal illnesses. The Sodhan procedure, aimed at achieving pathological recovery, is highlighted as crucial for reducing the post-disease carrier state and subsequent sequelae [7-10].

CONCLUSION

In conclusion, the utilization of Ayurvedic principles, particularly the Sodhan procedure, in post-pyrexial COVID-19 patients may offer a holistic approach to mitigate the risk of vascular accidents and cardiac death. Understanding and implementing ancient Ayurvedic practices such as Punravartak Jwara from the Charaka Samhita could provide valuable insights into managing post-disease complications effectively. Embracing these holistic methods alongside conventional medical treatments may contribute to better outcomes and reduce the burden of long-term sequelae following COVID-19 infection. Further research and clinical trials are warranted to validate the efficacy and safety of Ayurvedic interventions in post-COVID-19 care.

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