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SHOCK AND ITS MANAGEMENT IN AYURVEDA

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ABSTRACT:

Shock, a critical medical condition demanding swift intervention, is comprehensively detailed in ancient Ayurvedic texts attributed to the Acharyas. These texts meticulously outline the etiology, pathogenesis, clinical features, and management strategies of shock, categorizing certain types with poor prognoses like Pratyakheya and Asadhya, underscoring the urgency of timely treatment to prevent progression to multi-organ dysfunction and death. Ayurveda specifically highlights haemorrhagic shock and discusses other types such as septic, hypovolemic, traumatic, anaphylactic, and neurogenic shocks within relevant contexts. Acharya Sushruta's contributions extensively cover shock across various disciplines, advocating for early intervention through ancient medical resources. Modern medicine has advanced to integrate these foundational principles, refining diagnostic precision and treatment efficacy with technological innovations and comprehensive clinical protocols, while maintaining a fundamental continuity in understanding and addressing shock's critical nature across centuries and medical paradigms.

KEYWORDS: Shock, Ayurveda, Haemorrhagic, Ancient medicine, Treatment strategies

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INTRODUCTION:

Shock encompasses a variety of medical conditions where the heart, lungs, and blood fail to deliver oxygen effectively to the body. It is not an independent diagnosis but rather a critical symptom indicating underlying health issues, necessitating immediate medical intervention. Defined as a state of cellular and tissue hypoxia due to inadequate oxygen utilization, shock is initially reversible but requires prompt recognition and treatment to prevent progression to irreversible organ dysfunction. Commonly encountered in surgical practice, shock can result from trauma, sepsis and complications before, during, or after pregnancy. Haemorrhagic, hypovolemic, septic, and neurogenic shock are frequent scenarios in surgical settings. Ayurveda, an ancient Indian medical system dating back to the Vedic period, has historically addressed trauma and sepsis through surgical and medicinal approaches. Acharya Sushruta, a pioneer in Ayurvedic medicine, extensively documented the etiology, pathogenesis, clinical features, prognosis, and management of various types of shock in his surgical texts. His works emphasize the management of shock in contexts such as wounds, abscesses, burns, and intrauterine foetal demise, highlighting his deep understanding of surgical emergencies.¹⁻³

Shock is characterized as a condition marked by progressive failure of bodily functions, stemming from surgical procedures, trauma, wounds, intoxication, or infections. Often swiftly leading to mortality, it represents a pathological state where systemic reduction in tissue perfusion significantly diminishes tissue oxygen delivery. This cascade results in irreversible cell and tissue damage, culminating in end-organ failure and death. Shock can arise from diverse causes ranging from hypovolemia to spinal cord injury, all

culminating in circulatory collapse and eventual demise.

Throughout history, Acharya Sushruta, revered as the father of surgery, demonstrated profound awareness of shock's impact on human health. His writings extensively detail the factors contributing to mortality, emphasizing the critical role of blood and methods to control hemorrhage to prevent hypovolemic shock-induced death. Furthermore, Sushruta's clinical acumen is evident in his descriptions of shock-related complications in traumatic wounds, underscoring his comprehensive grasp of surgical emergencies. His compendium dedicates substantial attention to safeguarding vital anatomical locations, termed Marma, essential for minimizing mortality in surgical and para-surgical procedures. These Marma points, though not uniformly lethal when injured, highlight the critical areas whose compromise can lead to severe outcomes like death from shock. Shock represents a paramount medical emergency associated with high mortality rates, primarily due to inadequate tissue perfusion by the cardiovascular system. It arises from an imbalance between oxygen supply and demand in tissues, influenced by conditions increasing oxygen demand or reducing supply. Mortality rates vary across shock types, with cardiogenic shock carrying a mortality rate of 60-70%, septic shock 35-40%, and hypovolemic shock varying with the underlying disease state.⁴ The classification includes hypovolemic, cardiogenic, distributive (including neurogenic), and obstructive shocks. Trauma-related shocks predominantly manifest as hypovolemic shock, while neurogenic shock represents a subtype of distributive shock caused by spinal cord injury compromising vascular tone regulation.⁵

Pathophysiology:

The pathophysiology of shock typically originates from sudden loss of blood volume or fluid from the vascular space, or inadequate circulation, leading to decreased right heart filling. This reduction in filling extends to the pulmonary vasculature and subsequently affects left heart filling, resulting in decreased left ventricular volume and arterial blood pressure. The body responds with several compensatory mechanisms: A) adrenergic discharge, B) hyperventilation, C) release of vasoactive hormones, D) vascular collapse, E) fluid resorption from interstitial tissue, F) movement of fluid from intracellular to extracellular spaces, and G) renal conservation of water and electrolytes. Failure to address the underlying cause progressively leads to multi-organ dysfunction syndrome and death. Ayurvedic perspectives consider Rakta (blood) as the foundational element supplying nutrients throughout the body. The balance of all Dhatus (body tissues) depends on the integrity of Rakta. Any disruption in blood supply due to various causes, including different types of shock, can profoundly affect overall body physiology, leading to imbalance and dysfunction. Understanding the clinical features of shock is crucial for early diagnosis and effective management planning.⁶ In Ayurveda, Rakta is considered the essence from which all nutrients are distributed throughout the body. The balance and depletion of all Dhatus depend on the status of Rakta. Therefore, any disruption in blood supply due to various causes, including different types of shock, can significantly alter the overall body's physiological balance. Understanding the clinical manifestations of shock is imperative for early diagnosis and effective management planning.⁷

Clinical features:

They are due to the causative factors and some are result of body compensatory mechanism to come out from the shock. Appearance of clinical features depend on degree of shock whether, it is mild moderate and severe.¹⁻³⁻⁴⁻⁵⁻⁶

Management:

Acharya Sushruta viewed shock as having a poor prognosis and outlined specific management strategies in his teachings. He advocated for measures such as Ashwathan (reassurance), Sheet Jal Shichan (cooling therapies), and Dhatu Kshaya Chikitsa (tissue replenishment), known as Swayoni Vardhan Chikitsa. This approach emphasizes the importance of Rakta (blood) intake to address Rakta Kshaya (blood loss). To staunch bleeding, Sushruta prescribed techniques like SiraVedha (venesection), Skandan (ligation), Shandhan (suturing), Pachan (digestion promotion), and Dehan (cauterization). Additionally, he recommended the use of animal blood transfusions (raktapaan) from species like deer, buffalo, and rabbit, alongside herbal formulations like Kakolyadi Kwath with honey and sugar water. Surgical interventions such as SiraVedha and Vidharadhi (exploration and drainage) were detailed to manage haemorrhage and prevent infection, underscoring his comprehensive approach to surgical emergencies.⁸⁻⁹ In contrast, modern medicine focuses on contemporary interventions including resuscitation, haemorrhage control, fluid and blood replacement, and pharmacotherapy targeting vital signs stabilization and interrupting pathological cycles with medications like chronotropics, inotropics, vasodilators, vasoconstrictors, beta-blockers, diuretics, and thrombolytics. Both approaches, ancient and modern, aim to mitigate the devastating effects of shock

through comprehensive and timely interventions tailored to the patient's condition and needs.¹⁰

Clinical features as per Modern medicine:

- Cold and pale extremities and face (forehead due to cold sweat)
- Hyperventilation dyspnoea and tachypnoea
- Fever
- Cyanosis
- Convulsion
- Thirst
- Giddiness
- Oliguria and anuria
- Cardiac pain
- Unconsciousness
- Anorexia
- Tympanitis

Clinical features as per Ayurveda:

- Sheet paadkaraanam panduvadan
- Jwara
- Shayav
- Aakshepak
- Trishna
- Timira
- Mutrasang
- Hridyashool
- Murchha
- Abhaktshandh
- Adyamaan

DISCUSSION:

Shock is a critical medical condition that demands thorough understanding for early diagnosis and management. The ancient Ayurvedic texts, known as the Acharyas, recognized the gravity of shock and meticulously detailed its etiology, pathogenesis, clinical features, and management strategies. They categorized certain types of shock as having a poor prognosis, emphasizing the importance of informing patients and their caregivers about the potential for severe morbidity and

mortality if not promptly addressed. Terms like Pratyakheya (difficult to treat) and Asadhya (incurable) were used to underscore the seriousness of these conditions, which, if left untreated, could progress to multi-organ dysfunction syndrome (MODS) and death.^{11,12} Ayurveda specifically highlights haemorrhagic shock, acknowledging the critical role of blood in physiological balance. The texts also discuss septic, hypovolemic, traumatic, anaphylactic, and neurogenic shocks, each described in their relevant contexts. This comprehensive understanding was not only crucial for medical practice but also laid the foundation for surgical interventions, stressing the need for physicians to be well-versed (Bhaushrut) by referring to multiple texts for accurate diagnosis and treatment. Acharya Sushruta, a prominent figure in Ayurveda, extensively covered shock in his writings. He addressed it in various contexts such as RaktmokshanaVidhdi (bloodletting methods), Vidharadhi (complications of surgical procedures), ShadyoVarana (management of haemorrhage), and ShalyaNirharan (surgical excisions). His teachings cautioned about the grim outlook associated with shock and advocated for early intervention, leveraging the medical resources available in ancient times.^{10,13}

In modern medicine, the understanding of shock has evolved significantly, paralleling and building upon the foundational concepts laid out by Acharya Sushrut. Contemporary medical science provides a more systematic approach to the prevention, early diagnosis, and management of shock, aligning closely with the ancient principles while incorporating advancements in technology and clinical practice. The significance of haemorrhagic shock remains pertinent in both Ayurvedic and modern medical teachings, reflecting a continuity of understanding across centuries. However,

modern medicine expands upon this foundation by integrating advanced diagnostic tools, sophisticated treatment modalities, and comprehensive protocols tailored to diverse clinical settings. Ultimately, whether in ancient Ayurvedic texts or in modern medical practice, the essence remains unchanged: shock is a critical condition necessitating swift and informed action. By studying the wisdom of the past and leveraging contemporary innovations, healthcare professionals can continue to refine their approaches to effectively diagnose, manage, and mitigate the impact of this life-threatening condition.

CONCLUSION:

Shock, a critical medical condition, has been deeply understood since ancient times according to Ayurvedic texts. The Acharyas detailed its causes, progression, and management, highlighting its potential for severe outcomes if not promptly treated. Acharya Sushruta emphasized early intervention through surgical and therapeutic measures. Modern medicine has built upon these foundations with advanced diagnostics and treatments while maintaining the urgency of addressing shock promptly. Both ancient wisdom and contemporary innovations underscore the critical need for swift and informed action in managing this life-threatening condition.

REFERENCE:

1. Sushrutasamhitachikitsasthana 2 nd chapter sadyovranachikitsiyaadhaya, shridalhanacharyaavamshrigaya das virachitavistrathindiviyakhya by dr. keval Krishna thakaralchaowkhambha first edition 2014.
2. Sushrutasamhitidansthana9th chaptervidhardhinidanadhaya, shridalhanacharyaavamshrigaya das virachitavistrathindiviyakhya by dr. keval Krishna thakaralchaowkhambha first edition 2014.
3. Sushrutasamhitidansthana 8 th chaptermudhagrabhanidanadhaya, shridalhanacharyaavamshrigaya das virachitavistrathindiviyakhya by dr. keval Krishna thakaralchaowkhambha first edition 2014.
4. Kumar, V.; Abbas, A. K. et al., eds. (2007). Robbins Basic Pathology (8th edition). Saunders, Elsevier, ISBN 9781416029731, Page 102-3.
5. Haseer Koya H, Paul M., Shock- StatPearls, <https://www.ncbi.nlm.nih.gov/books/NBK531492>
6. A concise text book of surgery by somen das fourth edition 2006.
7. SRBs manual of surgery by shri ram bhat M 5th edition 2016.
8. Sushrutasamhitasutrasthana 27th chapter shalyopnayaneeeyaadhaya ,shridalhanacharyaavamshrigaya das virachitavistrathindiviyakhya by dr. keval Krishna thakaralchaowkhambha first edition 2014.
9. Sushrutasamhitasutrasthana25th chapter astavidhashastakarmeeyaadhaya, shridalhanacharyaavamshrigaya das virachitavistrathindiviyakhya by dr. keval Krishna thakaralchaowkhambha first edition 2014 first edition 2014.
10. Sushrutasamhitachikitsa sthana16th chapter vidhardhichikitsiyaadhaya, shridalhanacharyaavamshrigaya das virachitavistrathindiviyakhya by dr. keval Krishna thakaralchaowkhambha first edition 2014.
11. Agnivesha, Charaka Samhitha, edited by Vaidya Yadavji Treikamji Acharya, Chaukambha Sanskrit Sansthan, 5th edition, 2001, sutrasthana, chapter 20, verse 11.
12. Dalhana, Sushrut Samhita, edited by Sharma PV, Chaukambha sanskrit sansthan, edited 2010, Nidanasthana 1st chapter

13. Agnivesha, Charaka Samhitha, edited by
Vaidya Yadavji Treikamji Acharya,

Chaukambha Sanskrit Sansthan, 5th edition,
2001, chikitsasthana, chapter 28, verse 100.

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