



A Critical Interpretation on Cadaver Preservation of Body According to Ayurvedic & Modern Procedures

Dr. Aaditya Bhardwaj¹, Dr. Gaurav Gairola.²

1. Assistant Professor, Department of Rachana Sharira, Coer Medical College of Ayurveda & Hospital, Vardhman Puram, Roorkee, Uttarakhand.
2. Assistant Professor, Department of Kriya Sharira, Coer Medical College of Ayurveda & Hospital, Vardhman Puram, Roorkee, Uttarakhand.

Corresponding Author – Dr. Aaditya Bhardwaj, Assistant Professor, Department of Rachana Sharira, Coer Medical College of Ayurveda & Hospital, Vardhman Puram, Roorkee, Uttarakhand.

Email Id.- aadityabhardwaj09@gmail.com

Mob - 7088014118

ABSTRACT

Maharishi Sushruta was the first Indian surgeon. Acharya Susruta is the originator of surgery, according to Ayurveda. Dissecting a dead corpse, according to Sushruta, is essential for becoming a great physician and surgeon. Sushruta briefly explains dissection and preservation in the Sushruta Samhita. Knowledge of appropriate preservation procedures is required for preservation. When the wrong preservation procedure is utilized to protect a dead body, the body is more likely to be destroyed. According to Acharya Charaka, the Sharir Rachana requires a full comprehension of Shuksama and Sthula Sharir. All accessible information on Ayurvedic science is being compiled, including how the body is gathered, where it will be maintained, and how it will be preserved. The current preservation system is not the same as the Ayurvedic approach.

Keywords: Cadaver Preservation, dead body preservation, Dissection etc.

Introduction

Charaka Samhita and Sushruta Samhita are the two most important Samhita in Ayurveda. Maharishi Sushruta was India's first physician, according to Ayurveda. Sushruta knows a lot about Sharir Rachana, according to various pieces of evidence. Sushruta discusses the ayurvedic preservation and dissection technique in great detail. The Sushruta Samhita was concerned with surgical matters such as the use of various equipment and surgical procedures. His work includes major anatomical pondering by ancient Hindus.¹ There is also

compelling evidence that knowledge of human anatomy was discovered through both surface observation and dissection, since he believed that students preparing to be surgeons should have a thorough awareness of the human body's structure. The progress of surgery is significant when considering the constraints that prohibited the study of anatomy in ancient India. According to Hindu texts, the human body is sacred after death. On the other side, Maharishi Sushruta was able to get through the proclamation and exhibit his amazing mastery of human anatomy by scraping off skin and flesh with a brush-like broom without the dissector having to hit the warps.

Preservation of a dead body .

1. A long-term disease does not cause death.
2. A deceased body has all of its bodily components.
3. The dead had a life expectancy of fewer than 100 years.
4. Death is not caused by poison.

Material for Preparation

1. Munja
2. The bamboo cage
3. Kshan
4. Extremely cold rivers and sluggish currents
5. Kusha

Preservation Techniques

The deceased body was subsequently gathered, and the Antargata mala was then removed (intestinal faecal). The deceased corpse is then wrapped with a cage and bound with Munja, Kusha (Dharbha), chal, and kshan. For seven days, the cage holding the dead corpse was placed in a slow, wet river. After seven days, the corpse was recovered from the sea.

Modern Method of preservation of Cadaver (Dead Body) methods

Cadavers are a tribute to body science, and medical students frequently utilize them to do anatomical study. Cadavers are frequently used to evaluate surgical operations before they are performed on real patients³ Although several schools have adopted the use of robotics and surgical templates to teach students. Cadavers are still required for hands-on learning. In the United States, appendectomies, or the removal of the appendix, are performed 30000 times every year, yet they are still performed on real cadavers rather than employing computerized simulations. Gross anatomy, a popular medical school subject that analyzes the body's visible architecture, gives students hands-on experience⁴ The demand for cadavers has grown beyond the scope of university study. Organizations such as science therapy and anatomy hafts are two examples.⁵ The register aids in the transportation of bodies to the most critical locations.

The procedures for keeping cadavers have changed over the previous 200 years. Because there were no other options for preventing the body's condition from rapidly degrading, cadavers had to be employed right soon. In order to perform human anatomy seminars and lessons, preservation was essential. Glutaraldehyde was the first important chemical used for embalming and sustaining the corpse, despite the fact that it causes yellow stains in the tissue that might impede with examination and analysis. The most prevalent embalming ingredient is still formaldehyde.⁶

Aim and Objectives

- To rule out the method of cadaveric preservation according to Ayurvedic and Modern procedures.

Methodology – The information for Cadaveric Preservation was gathered from a variety of sources, including publications, manuscripts, legitimate websites, text books, and Samhitas.

Preservation of a dead Body in the past

There is a mention to Raja Dasaratha's dead body being kept in taila drona during the Vedic period. Egyptian Pyramids: Egyptian pyramids have a reputation for keeping corpses for years.

Cadaveric Preservation Literature

To become a physician or surgeon, you must be able to keep a dead corpse for a long period with little effect and little damage to the body since any ailment may be easily diagnosed.⁷ Acharaya Susruta covers dead corpse preservation in the fifth chapter of the Sushruta Samita. The present preservation procedure is not the same as the ayurvedic approach.⁸

Preserving a Cadaver (dead body)

- That no injuries have occurred in any part of the body.
- The deceased person is in his or her fifties or sixties.
- A long-term disease does not cause death.
- That all of the muscles are intact;
- That the deceased body is not preserved during the postmortem treatment.
- Poisoning is not a cause of death⁹

The Reason for Preserving

The goal, according to contemporary science, is to maintain the body healthy for as long as possible while also making each structure and organ apparent.

Preservation material ^[8]

1. Glycerine-3.5 litre
2. Canula
3. Water-4.5 litre
4. Staining fluid

5. Red lead-400mg.
6. Surgical blade
7. Clinical Scalpel
8. Turpentine oil- 550 ml
9. Water-3.5 litre
10. Spirit-4.5 litre
11. Carbolic acid or Phenol- 2.5 litre
12. Formaline-6 litre
13. Pot

Preservation Techniques

Collect the deceased corpse and set it on the dissection table in the dissection hall in a supine posture. Above the deceased body's skin lies a pot filled with preserving fluid.¹⁰ The inguinal ligament then falls or tracks between the anterior superior iliac spine and the pubic tubercle. Look for the femoral sheath after making an incision below the 4 cm inguinal ligament. In the femoral sheath, the femoral artery runs laterally while the femoral vein runs medially.¹¹ The preserving fluid from the pot is drained into the circulation through a canula put into the femoral artery.¹² Through a canula inserted into the femoral artery, the pot's preserving fluid is emptied into circulation.¹³ By pricking the allpin on various body regions, we can confirm the presence of fluid in all sections of the body. By employing the left normal carotid artery, the deceased corpse will be saved.

Discussion

Many pieces of evidence have been found in historical manuscripts that detail the storage and dissection of a deceased corpse. Sushruta established the scientific process of preservation and dissection. Sushruta advises immersing a dead body in slow-moving river water initially if one desires to keep it alive.¹⁴ Sushruta recommends that we retain a dead corpse with all of the body parts in order to think about the entire body. Whether death is caused by chronic illnesses or not, there may be changes in the interior or external components of the body.

1. According to Acharya Sushruta, when a person dies as a consequence of poison, the body should not be retained. Because the toxin in a dead corpse can cause decomposition, bodily components may be harmed.¹⁵ As a result, a corpse should be maintained in the case of natural death. According to Acharya Sushruta, dissection of a dead corpse begins after seven days of preservation with kusha, khasha, and bark. Dissecting with a sharp edge tool is likewise discouraged by Sushruta.¹⁶ The use of bark, kusha khasha, in dissection, he claims, would reveal extensive information. According to popular medicine, there are three techniques for maintaining a dead corpse.
2. Saturated salt solution.
3. Thiel solution
4. Formalin solution

Conclusion

The deceased corpse must be preserved for dissection. Both Ayurveda and contemporary science identify the numerous preservation strategies. In Ayurveda, the preservation strategy is straightforward and natural. Chemicals are not employed in the ayurveda technique of preservation, while various chemical agents are utilized in the western approach. These chemical substances may have an adverse effect on the deceased person and cause harm. We may infer from this research that the Ayurvedic technique of preservation is natural and healthful and that it can be employed to preserve a body at a reasonable cost.

Conflict of Interest –None

Source of Support -None

REFERENCE

1. Rachana Sharir Vigyan by Dr. Mahendra Choudhary part-1, Chaukambha Oriyantaliya Varanasi, reprint edition, 2016; 2: 29.
2. Dr. Kaushal Kumar, Dr. Subhash Upadhyay and Dr. Arti Rajhansa, Ayurvedic and Modern Method of Preservation of Dead Body- Review Article, World Journal Of Pharmaceutical And Medical Research, Wjpmr, 2020,6(10), 186-188.
3. Sushruta Samhita of Maharsi- Susruta, hindi commentary by Kaviraja Ambikadatta Shastri, part- 1, Chaukambha Sanskrit Sansthan Varanasi, reprint edition, Sharir Sthana, 2014; 5/61: 66.
4. Ayurvedic Sharir Rachana Vigyan by Acharya Tarachand Sharma Nath Pustaka Bandar Rohtak, 2.
5. Sushruta Samhita of Maharsi- Susruta, hindi commentary by Kaviraja Ambikadatta Shastri, part- 1, Chaukambha Sanskrit Sansthan Varanasi, reprint edition, Sharir Sthana, 2014; 5/61: 66.
6. Ajmani ML. Embalming: Principles and Legal Aspects. Daryagani: Jaypee Brothers Publishers; 1998.
7. Al-Hayani AA, Hamdy RM, El-Aziz GSA. Shellac: a non-toxic preservative for human embalming techniques. J Anim Vet Adv. 2011;10:1561–1567.
8. Ali Y, Dolan MJ, Fendler EJ. Alcophls. In: Block SS, et al., editors. Disinfection, Sterilization, and Preservation. Philadelphia: Lippincott Williams & Wilkins; 2001. pp. 229–254.
9. Anichkov NM, Danilova IA, Riabinin IA, et al. [Application of polyguanidine solution for fixation of biological and anatomical specimens] Morfologija. 2010;137:58–61.
10. Anichkov N, Danilova I, Vasiliev O, et al. Use of a polyguanidine solution for fixing biological and anatomical specimens. Neurosci Behav Physiol. 2011;41:18–21.
11. Aziz MA, McKenzie JC, Wilson JS, et al. The human cadaver in the age of biomedical informatics. Anat Rec. 2002;269:20–32.

12. Rachana Sharir Vigyan by Dr. Mahendra Choudhary part-1, Chaukambha Oriyantaliya Varanasi, reprint edition, 2016; 2: 30.
13. Rachana Sharir Vigyan by Dr. Mahendra Choudhary part-1, Chaukambha Oriyantaliya Varanasi, reprint edition, 2016; 2: 31.
14. Rachana Sharir Vigyan by Dr. Mahendra Choudhary part-1, Chaukambha Oriyantaliya Varanasi, reprint edition, 2016; 2: 32.
15. Baadsgaard A, Monge J, Cox S, et al. Human sacrifice and intentional corpse preservation in the Royal Cemetery of Ur. *Antiquity*. 2011;85:27–42.
16. Babich H, Stotzky G. A microbial assay for determining the influence of physicochemical environmental factors on the toxicity of organics: phenol. *Arch Environ Contam Toxicol*. 1985;14:409–415.

