Historical Review of Single and Double Snake Medical Symbol: Which should be Used?

Md. Anup Rahman Chowdhury, 1 Nur-A-Farhana Islam, 2 Akhiruzzaman, 3 Afruza Bulbul Akhtar 4

- Professor
 Department of Pharmacology and Therapeutics
 TMSS Medical College, Bogura
- 2. Professor
 Department of Biochemistry
 TMSS Medical College, Bogura
- 3. Associate Professor
 Department of Community Medicine
 TMSS Medical College, Bogura
- Professor
 Department of Anatomy
 Rangpur Community Medical College, Rangpur

Correspondence to:

Md. Anup Rahman Chowdhury

Professor

Department of Pharmacology and Therapeutics TMSS Medical College, Bogura Email: anup357@gmail.com



Submission Date: 02 February 2024 Accepted Date: 07 August 2024 Published Date: 30 September 2024 DOI: https://doi.org/10.3329/jrpmc.v9i2.77371

Introduction:

Symbol is a term, a name, or may be a photo that can be acquainted in each day existence and possesses unique institutions except its traditional meaning.1 Symbols can frequently be understood in multiple manner and may merge with country wide spirit. Although illustrations of the heart, the eye, the liver or the brain have represented the characteristics of human health in particular contexts, but none are comprehensive symbols of medicine,² However a few historic association is probably beneficial if you want to shed illumination on a few components of this symbolism. The caduceus of Hermes of double snake and the rod of Asclepius of single snake have been the most widely used symbols representing the medical profession since ancient time. However, the two logos may be visually quite similar; the historical and mythical origins of these figures differ quite dramatically.

Greek mythology reveals that the snake encircling

Abstract:

Symbol is a conventional sign in writing or printing, represents something else that is invisible. When one examines the trademarks of numerous medical organizations, will discover the photographs of single or double snakes spherical rods are used interchangeably. Between the two most popular medical symbols either single or double snake, it is interesting to know that one is being the classical and true sign of medicine while the other one's association is rather doubtful. The origins and creation of those symbols in medical sciences are pretty different, and as a consequence it's important to take a look at the ancient occasions that connected them with the medical profession.

Keywords: Historical review, Single snake, Double snake, Medical symbol, History of medical symbol, which should use

Citation: Chowdhury MAR, Islam NF, Akhiruzzaman, Akhtar AB.Historical Review of Single and Double Snake Medical Symbol: Which should be Used? J Rang Med Col. 2024 Sep;9(2):89-93.doi: https://doi.org/10.3329/jrpmc.v9i2.77371

a rod of Asclepius represents medicine and has historical connection to medicine practice. The

caduceus symbol of Hermes, a double snake-encircled rod with wings, is associated with commerce, trade, wealth, thieves, and alchemy.

History of symbol of medicine:

Snakes have been used as symbols of immortality, wisdom, and health since ancient Rome. They were powerful against diseases and changed their skin annually, symbolizing the circle of life. The Asclepius rod with a single snake was used to represent medicine throughout European history, except during the Middle Ages (5th to 15th century) when the Catholic Church suppressed the use of symbols related to ancient Greco-Roman gods. Instead, the medical profession was represented by common medical exercises like urine flasks or uroscopy.³⁻⁵

Asclepius, a "blameless physician"^{6,7} and prominent in the Hippocratic oath, Asclepius rod

with a single snake (Figure: 1-A) was firmly recognized as the symbol of medicine in the 17th century.⁸ The single snake symbol was used only in medical contexts, while double snake of the caduceus (Figure-1-B), although used by some medical organizations, was used in commerce, communications, trades, and chemistry.^{5,9}

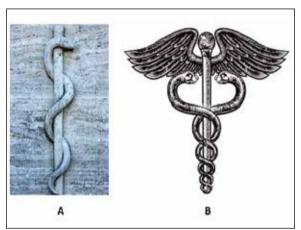


Figure-1 (A & B): Asclepius rod with single snake and Caduceus symbol of double snake

Widespread uses of the caduceus (Double snake) began in the late 19th century, and it is used interchangeably along with the Asclepius symbol of single snake. For example, the symbol of the U.S. Public Health Service bears the double snake the World Health (Figure-2-A), whereas Organization (Figure-2-B), British Medical Association (Figure:II-C), American Medical Association (Figure-2-D) prominently displays the Asclepius rod with a single snake. 10,11

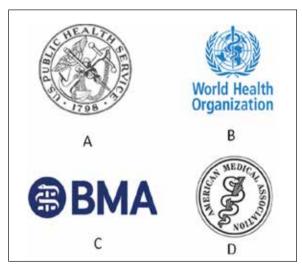


Figure-2 (A, B, C, D): Logos of historical importance

History of single snake around a rod of Asclepius:

Asclepius was the son of the God Apollo and the mortal woman Coronis. Apollo the son of Zeus,^{1,12} was the god of healing as well as the sender of plagues.⁶ Asclepius has usually been historically defined as a bearded guy sporting a robe that leaves his chest exposed and conserving a rod together along with his sacred unmarried snake coiled round it.¹³

There are several stories, describe how Asclepius chose the symbol of a single snake around a rod. The most popular one is, "once Asclepius was examining a patient named Glaukos, who was dead with a thunderbolt, a snake entered the room, surprising Asclepius. He killed the snake with a rod blow. A second snake arrived, carrying herbs that revived the dead snake. Asclepius learned this lesson and used the same herbs to restore Glaukos's life, and, as a mark of respect, he adopted the snake coiling around his rod as his sign." 12

As Ocyrhoe forecasted the fate of Asclepius in his very first life "For interfering in the natural laws of mankind, Zeus killed Asclepius with a thunderbolt". 12 However, Asclepius's fault was not raising the dead in general but restoring the lives of those, whom Zeus had fated. 13 But later, after intervention from Apollo, Zeus realized Asclepius's service as a physician to humanity and restored his life as an Olympian divinity of medicine and placed him in the sky. 12,14

The heroic, and later mythological figure of Asclepius was a major focus of ancient Greco-Roman medical tradition from perhaps as early as 1200 BC^{7,15} up to 500 AD^{8,9}. The first recorded mention of Asclepius as the son of the god Apollo and healer of sicknesses is by the Greek poet named Hesiod in the 8th century BC.^{16,17} Asclepius was also been mentioned in Homer's Iliad, who represented him as an ideal Greek physician.⁷

Later Asclepius traditions of affected person care unfold at some stage in Greece and, finally to the sizable Roman Empire. In Roman times, masses of historical temple complexes, called "Asklepieions", were constructed at some stage in The Greco-Roman world. In "Asklepieions" appear like a hyperlink among a medical institution and a cutting-edge hospital. Many ancient Greeks including Hippocrates, Socrates, Plato, and Galen reference Asclepius as a physician. Hippocrates proudly claimed ideas

from Asclepius¹³ Indeed, Plato often introduced Hippocrates as "the Asclepiad" which mean the followers or sons of Asclepius. 18,20,21 The starting lines of the Hippocratic Oath reveal the major and important role occupied by Asclepius and his mythological daughters, Hygieia and Panakeia. According to Hippocrates, "I swear via way of means of Apollo the Physician, and Asclepius, Panakeia, Hygieia and all of the gods and goddesses, making them my witnesses, that I will satisfy in keeping with my ability and judgment".22 There is another older reference found in Keith Blaeyney's13 article suggests that the symbol of a single snake encircling a rod may have originated from ancient Greek physicians' practice of extracting the common parasitic filarial worm, the 'Guinea worm' (Dracunculusmedinensis), from a patient's subcutaneous tissues by cutting a slit and winding the bug around a stick. (Figure-3).



Figure-3: Removal of Dracunculusmedinensis by winding around a stick

Physicians in North Africa and Turkey advertised their services by displaying a sign with a worm on a stick, believed to be inspired by the prevalent infection during that time.^{14,15}

History of Double snake encircled rod with surmounting wings (the caduceus of Hermes):

In the later part of the 19th century, the Caduceus symbol of Hermes (double snake–entwined rod with surmounting wings) also became associated with medical practice, as synonymous with the rod of Asclepius. The magic rod of Greek Herme's, was represented as a short rod encircled by two snakes and topped by a pair of wings.

In Greek mythology, Hermes, the son of Zeus and Maia, was the winged messenger of the gods, conductor of the dead, patron of travelers, and

protector of merchants and thieves.^{2,23} Hermes was an talented but an unethical child. He had stolen his stepbrother Apollo's cattle and hid them in a cave. He then sacrificed of the livestock and a tortoise. With the shell of a tortoise and the cables made from cattle, Hermes invented a stringed musical instrument, the lyre.^{24,25} However Apollo discovered the theft of Hermes by Prediction and went to Hermes' mom Maia to complain. Maia could only show Apollo that her "innocent" child was still in his cot. The furious Apollo took the child to Zeus to claim back his cattle, but the attraction to the music of the lyre by Hermes reduced his anger. Then he gave the cattle to Hermes in exchange of the musical instrument.

Continuing in his invention, Hermes additionally made a musical device shepherd's pipe. Its music was so amazing that Apollo again wished it too. Apollo then exchanged the golden wand (rod) that he used to manual farm animals for Hermes' instrument.

Apollo described the caduceus and his golden rod as, "the wondrous rod of abundance and wealth which is not subject to death and will protect thee".^{5,24} Hermes also had a mythological role as a peacemaker (Figure-IV). According to legend, Hermes separated two fighting snakes by driving his rod into the ground between them; the snakes then entwined themselves around the rod in friendship to form the caduceus sign.²⁵



Figure-4: Hermes with his caduceus

During the Middle Ages, the caduceus sign of a double snake appeared on printers' signs and merchant ships, symbolizing their role as messengers and businessmen (Figure-5). Of interest, it's been positioned at the front of business homes which include banks, symbolizing Hermes because the customer of trade.^{26,27}



Figure-5: 18th century commercial trade token showing Caduceus double snake

The rod of Asclepius (single snake) or the caduceus (double snake): which one is more appropriate?

The single snake logo is a medical symbol with a history of more than two million years.¹⁴ On the other hand, the erroneous use of double snake logo in medical science is quite modern.²⁸ Both these symbols, were popularized by some European medical publishing houses as their printers' marks, especially as in the book's title page.14 It becomes appropriate at this moment to ask why the Caduceus of Hermes, who was the patrons of commerce and thieves, became a symbol of medicine and its practice.2 Some have hypothesized that the motive is associated with using the caduceus image with the aid of using some European publishing houses in the late 19th century are purely unintentional. A London base clinical publisher John Churchill, used a caduceus printer's mark at the web page of most of the clinical and clinical books he sent to the United

States.⁹ The mark may have symbolized Churchill's desire to unite medicine and literature because it consisted of two snakes labeled "medicine" and "literature" and a motto "unbreakable bond unites".²⁹ Nevertheless, John clearly saw the double snake as his printer's mark and not the symbol of medicine because some of his books related to medicine also included prominent representations of the Asklepias.⁹

Some U.S based publishing houses, thought that the double snake was a symbol of medicine, so had copied or adapted Churchill's double snake mark and were prominently displaying it in their medical books.⁹ Apparently, this misunderstanding was sufficiently widespread in the medical community to have stimulated the publication of papers condemning the adoption of the double snake of Caduceus and neglecting the single snake of Asclepius.

Friedlander⁹ surveyed 242 logos or insignia of medical or health-related organizations in the U.S found that professional medical organizations (62%) use the staff of the Asclepius rod as their monogram, while commercial organizations (76%), including pharmaceutical companies, use the double snake symbol. Hospitals, however, only used 37% of the Asclepius Rod and 63% of the Caduceus. The reason for using double snakes is likely due to the visual impact it can have on product sales.

Hermes' self-interested trader symbol of a double snake may not represent the noble medical profession, but the Aesculapius rod's direct connection to medicine is acknowledged.³⁰

Physician roles and status have evolved over 3000 years, but patient demands for integrity, sacrifice, and compassion remain consistent. Understanding the ancient Greek traditions for medical care can help physicians achieve their objectives and meet patient expectations.⁶ Physicians must practice their skills without prioritizing social status or financial rewards, as demonstrated by Asclepius. Sir William Osler wrote, "The exercise of medication is an art, now no longer a trade; a calling, now no longer a business; a calling where in your coronary heart could be exercised equally with your head".³¹

Conclusion:

Presently both symbols are used by various medically related organizations; the double snake seems to be the preferred choice of the more

commercially oriented institutions and thus should be avoided in the medical practice. The unmarried snake of the Asclepius is the right image of contemporary-day medicine. If the incorrect symbol—the double snake of caduceus—is embedded within side the scientific culture, the discovered career have to accurate this error. Like the historical Greeks and Romans, our sufferers are looking for the being concerned attributes of Asclepius of their providers. Perhaps with the aid of using higher information history, we will assist to repair the spirit of Asclepius to the exercise of medication and for this reason fulfill each our sufferers and our private expectancies for ourselves.

References:

- 1. Jung CG, Von Franz ML. Man and his Symbols. 1964. New York: Laurel-Dell;1968.
- 2. Nayernouri T. Asclepius, Caduceus, and Simurgh as medical symbols, part I. Arch Iran Med. 2010 Jan;13(1):61-68
- 3. Plato. Protagoras. http://classics.mit.edu/Plato/protagoras.html.
- Newman A. The Illustrated Treasury of Medical Curiosa. New York: Mc Graw- Hill; 1988.
- 5. Frey EF. The caduceus and the staff of Aesculapius from antiquity to the present. Tex Rep Biol Med. 1978; 36:1-15.
- 6. Bailey JE. Asklepios: Ancient Hero of Medical Caring. Ann Intern Med. 1996; 124:257-263.
- 7. Homer. The Iliad. Fagles R, tr. London: Penguin Books; 1991.
- 8. Schouten J. The Rod and the Serpent of Asklepios. Amsterdam: Elsevier; 1967.
- 9. Friedlander WJ. The Golden Wand of Medicine: A History of the Caduceus Symbol in Medicine. New York: Greenwood Pr; 1992.
- 10. Mc Culloch CC. The coat of arms of the medical corps. Military Surgery. 1917; 41:137-148.
- 11. Bremer JL. The caduceus again. New England Journal of Medicine. 1958 Feb 13;258(7):334-336.
- 12. Wilcox RA, Whitham EM. The Symbolof Modern Medicine: Why One Snake Is More Than Two. Ann of Int Medicine.2003; 138 (8):673-677.
- 13. Blaeyney K. The Caduceus vs the Staff of Asclepius. 2005. http://drblayney.com/Asclepius. html.

- 14. Edelstein EJ, Edelstein L. Asclepius: Collection and interpretation of the testimonies. Vol. 1 and Baltimore: John Hopkins UnivPr; 1998.
- 15. Nylander C. The fall of Troy. Antiquity. 1963 Mar; 37(145):6-11.
- 16. Frazer RM. The Poems of Hesiod. Norman: University of Oklahoma Press; 1983.
- 17. Hesiod. The Homeric Hymns and Homerica. Evelyn-White HG, trans. New York: Putnam; 1920:210-213.
- 18. Bailey JE. Asklepios: ancient hero of medical caring. Ann Intern Med. 1996; 124:257-263.
- 19. Hart GD, Forrest M. Asclepius the God of Medicine.Vol.94. London: The Royal Society of Medicine Pr Limited; 2000.
- 20. Plato. Phaedrus. Fowler HN, trans. Cambridge, MA: Harvard University Pr; 1938:549.
- 21. Kakridis J.Greek Mythology.Volumes1 to 5. Athens: Athens Publications; 1987.
- 22. Von Staden H. "In a pure and holy way": personal and professional conduct in the Hippocratic Oath? J Hist Med AlliedSci.1996; 51:404-437.
- 23. Burkert W. Greek Religion. U.S.A.: Harvard University Press: 1985.
- 24. Parada C. Genealogical Guide to Greek Mythology. Jonsered, Sweden: Paul Astroms Forlag; 1994.
- 25. The Myths of Hyginus. Grant M, tr. Lawrence, KS: Univ Kansas Publications;1960.
- 26. Rakel RE. One snake or two? JAMA. 1985; 253:2369.
- 27. Finn R, Orlans DA, Davenport G. A much misunderstood caduceus and the case for an aesculapion [Letter]. Lancet. 1999;353:1978.
- 28. Tyson SL. The caduceus. Scientific Monthly. 1932;34:492-498
- 29. Wilcox RA, Whitham EM. The symbol of modern medicine: why one snake is more than two. Annals of internal medicine. 2003 Apr 15;138(8):673-637.
- 30. Farnell RL. The Cult of Asklepius. In: Farnell RL, ed. Greek Hero Cults and Ideas of Immortality. Oxford: Clarendon Press; 1921.
- 31. Jackson R. Doctors and Diseases in the Roman Empire. Norman, OK: Univ of Oklahoma Pr; 1988.