

WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.084

Volume 12, Issue 17, 1206-1220.

Review Article

ISSN 2277-7105

A CONCEPTUAL AND APPLIED ASPECT OF AGNIKARMA WITH SURYAKANTA IN CHARMAKEELA W.S.R COMMON WARTS

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Article Received on 22 August 2023,

Revised on 12 Sept. 2023, Accepted on 02 Oct. 2023

DOI: 10.20959/wjpr202317-29859

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ABSTRACT

Charmakeela (Common Wart) is common in 10% of the world population. It is explained by Sushruta and Vaghbata in kshudra rogas. This condition was prevalent from ancient times which needs treatment more in correspondence as a cosmetic reasons. [1,4,5,8] Sushruta opines that, the *prakupita vyana vayu* getting aggravated and associating with kapha gives rise to peg or nail like keela known as charmakeela.8 All the clinical features of the *charmakeela* can be similar to warts. Warts are the patches of contagious hyperkeratotic overgrown skin-often stimulated by HPV(Human Papilloma Virus). The treatment of warts available in modern science like Chemical Cautery (Using Salicyclic

acid), Electrosurgery, Cryotherapy, Laser therapy method is good but has its own limitations like it is more expensive than ayurvedic procedure kshara, shastra, and agnikarma. Agnikarma is sresta among three. Agnikarma with Suryakanta have great advantage than other procedures in *charmakeela* opined by *Arunadatta*. [4,5,8]

KEYWORDS: Agni-karma, Charmakeela, Common-Warts.

INTRODUCTION

Charmakeela is one of the common clinical entities encountered in general practice its signs and symptoms similar to warts. Charmakeela has been explained by Sushruta and Vaghbata in kshudra rogas. This condition was prevalent from ancient times which needs treatment more in correspondance as a cosmetical reasons. [1,4,5,8]

Importance in Cosmetics

Warts are a common, contagious infection affecting 10% of the world population. They are

caused by infection of keratinocytes by subtypes of the human papilloma virus (HPV) family. Warts can be unsightly and embarrassing, especially when located on the face, neck, or dorsal palm. There are currently no specific antiviral therapies available to treat cutaneous HPV infection and no FDA-approved topical treatment for cutaneous common warts. Existing therapies are directed towards the direct physical destruction of the lesions with locally destructive or ablative modalities such as Cryotherapy, Electrosurgery, Curettage, application of acids, locally cytotoxic therapies, topical immunomodulatory immunotherapy, or lesion removal. These methods may achieve cure in some cases but can be painful and may require multiple visits to a physician's office. They can also be complicated by adverse cosmetic outcomes including scarring at the treatment site as well as the typical post-surgical risks of bleeding and infection. No one therapy is consistently effective in all cases and there is great variability among practitioners in the methods employed using each of these techniques with great variability of the results. [3,6,7,11] Sushrutha explains that charmakeela is caused by aggravated prakupita vyana vayu associating with kapha. The clinical features of charmakeela are similar to warts, which are contagious hyperkeratotic overgrown skin patches often stimulated by HPV. The treatment of warts has to be done with endurance and careful selection of procedures, otherwise it may lead to cosmetic derangement or recurrence of the ailment. Modern treatments for warts include Chemical Cautery (using Salicyclic acid), Electrosurgery, Cryotherapy, and Laser therapy, but these methods can be expensive and have limitations in achieving complete recovery from warts. Ayurvedic procedures such as kshara, shastra, and Agnikarma is sresta among three. Agnikarma with Suryakanta have great advantage than other procedures in charmakeela opined by Arunadatta. [4,5,8]

AIMS AND OBJECTIVES OF STUDY

To conduct a comprehensive literary study on *Charmakeela* and its management.

- Detailed study on Agnikarma.
- To evaluate the efficacy of *Agnikarma* with *Suryakanta*.

Literary Review

Historical Review of Charmakeela

Vedic and Post-Vedic Era

Charmakeela is not specifically mentioned in the Vedas, the oldest sacred texts of Hinduism. The Vedas primarily focus on spiritual and metaphysical topics rather than specific medical conditions. However, they do touch upon the concept of diseases and health in general, emphasizing the importance of maintaining physical and mental well-being.

$Samhitakala^{[1,8,20]}$

The first reference of Charmakeela is seen in Sushruta Samhita, where it is described as peg or nail-shaped, immovable sprouts on the exterior of the skin. There is also a reference to Charmakeela in Charaka Samhita.

Sangraha Kala^[4,5]

Charmakeela is mentioned in the Astanga Sangraha, a classic Ayurvedic text written by Bruhad Vagbhata in the 7th century CE, and by Laghu Vagbhata in the 8th century CE.

Post-Samhita Kala^[18,19]

References to Charmakeela are available in Madhavanidana and Sharangadhara samhita among Laghutrayis. The texts of Yogarathnakara and Gadanigraha contain information about the progression and treatment of Charmakeela.

Ancient Times

Warts were known to the ancient Egyptians, with several references to them in Egyptian medical texts. One of the earliest descriptions of warts comes from the Ebers Papyrus, written around 2500 BC-1550 BC. The papyrus describes warts as "growths on the skin" that are "rough and hard." It also says that warts can be caused by contact with an infected person or animal, or by scratching an insect bite.

In ancient Egypt, warts were believed to be caused by evil spirits or curses. Various treatments were used, including applying poultices, burning them with hot irons, and reciting spells. Some people believed that warts could be cured by rubbing them with the blood of a sacrificed animal. Interestingly, warts were sometimes seen as a sign of beauty, and some women even applied warts to their faces on purpose. [21,22]

Charmakeela in Greek and Roman Times

Ancient Greek and Roman physicians, such as Hippocrates and Galen, also documented and discussed warts around 400 B.C. They believed that warts were caused by an imbalance of bodily fluids and recommended various treatments, including cauterization and herbal remedies.[21,22]

Charmakeela in the Middle Ages

In the Middle Ages, warts were often seen as a sign of witchcraft or evil. There were avariety of folk remedies for warts, including rubbing them with a frog's foot, tying a string around them, or reciting a spell. Some people even believed that warts could be cured by throwing them into a fire or burying them in the ground. [22]

Charmakeela in the 19th Century

In the 19th century, scientists began to study warts more closely. In 1874, the German dermatologist Ferdinand Ritter von Hebra demonstrated that warts are caused by a virus infection. In 1907, the Italian physician Giuseppe Ciuffo was the first to show that warts can be transmitted from person to person. [23]

Charmakeela in the 20th Century

In the 20th century, scientists identified the specific viruses that cause warts. There are over 100 different types of human papillomavirus (HPV), and different types of HPV cause different types of warts. For example, HPV-1 causes common warts, HPV-2 causes genital warts, and HPV-5 causes plantar warts. [23]

Modern Treatments for Charmakeela

Today, there are a variety of treatments available for warts. Some common treatments include cryotherapy (freezing the wart), chemical treatment (applying a medication to the wart), and laser therapy. In some cases, surgery may be necessary to remove a wart. [23]

Charmakeela Shabdhotpatti(Derivation)^[19]

The word Charmakeela is derived from the combination of two words, Charma and Keela. Charma is derived from "Char + sarvadhathubyo manin" where "char" means dathu and "ma" is pratyaya. Keela means "keelyatha rudyathesou anentra vaa" whichtranslates to "that which pricks like a nail".

Nirukti^[19]

"Charmani guhyasya charmapi keela ivethi vaa". Binding or keela (nail) formed on the charma or in the "charma of guhya pradesha" like Anus" (guda)" is known as Charmakeela "Charma keelatheethi" That which takes the form of keela (nail) or binding on charma (skin) is called charmakeela.

Definition of Charmakeela Mentioned in classical texts

Sushruta Samhita^[1,8]

It describes how when the *vayu* is aggravated, it takes hold of the *Slesma* and moves itto the surface of the skin, producing stable, hard, and rough peg like warts. These are called "charmakeela" or "arshas".

Astanga hrudaya^[4]

When the *vayu* takes hold of the *Slesma*, it produces warts on the skin that are stable, hard, and similar to a jujube fruit. These are known as "*charmakeela*". Warts caused by *vata* are painful, those caused by *pitta* are red or black, those caused by *kapha* are smooth, and those that are well-established are of the same color as the skin.

Madhava Nidana^[18]

When the *vayu* takes hold of the *Kapha*, it produces warts on the skin that are stable, hard, and similar to a jujube fruit. These are known as "*charmakeela*".

Samprapti and Lakshana^[19]

It describes how when the *vayu* is aggravated, it takes hold of the *Slesma* and moves itto the surface of the skin, producing stable, hard, and rough peg like warts. These are called "charmakeela" or "arshas".

Warts caused by *vata* are painful, while those caused by *kapha* are of the same color as the skin and have a nodular appearance. Warts caused by *pitta* and *Rakta*: they are rough, black, smooth, and have a raised, hard surface. These are considered to be the symptoms of "*charmakeela*" or warts.

Acharya Charaka^[20]: Considers Charmakeela is an roga of bahyamarga which occurs on external surface of body i.e Twacha (Skin). There are Different Layer's of skin as per different Acharya's.

Brief Overview of Warts^[2,3,6,7,21]

Introduction

Warts are small, grainy skin growths caused by the human papillomavirus (HPV) and are transmitted by touch.

Definition

Warts are benign skin growths that occur as a result of an infection by HPV. They canappear on various areas of the body.

Epidemiology

Warts are prevalent worldwide, affecting people of all ages. They are more common in children and young adults, with a slight predominance in males. Warts are primarily transmitted through direct skin-to-skin contact or indirectly through contaminated surfaces.^[21]

Etiology

HPV is a non-enveloped, double-stranded DNA virus that enters the epithelium through skin/mucosa disruption and infects basal stem cells. Risk factors include sexual activity, smoking, long-term use of oral contraceptives, chewing betel nut, and exposure to radiation and UV light.

HPV Subtypes

HPV subtypes have a preference for specific body sites they infect. More than 180 different subtypes of HPV have been discovered. Cutaneous warts on the hands and feet are typically caused by HPV subtypes 1, 2, 4, 27, or 57. Most anogenital warts are caused by HPV subtypes 6 or 11. Pre-cancerous and cancerous lesions of the cervix, male and female anogenital areas, and oropharyngeal area are usually caused by HPV subtypes 16 and 18.

Pathophysiology

Certain subtypes of HPV, including strains 6, 11, 16, 18, 31, and 35, have the potential to induce cancer. Malignant transformation is more likely in individuals with genital warts and those who are immunocompromised. The virus remains relatively inactive in early infection but increases the production of virions as the infected cells grow and mature.

Malignant Transformation

Warts are generally benign, but they can sometimes become malignant and develop into verrucous carcinoma, a slow-growing tumor often mistaken for a common wart.

Common Wart (Verrucca Vulgaris)

A common wart has several histopathologic features, including acanthosis, digitated epidermal hyperplasia, papillomatosis, compact orthokeratosis, hypergranulosis, and tortuous

capillaries within the dermal papillae.

Clinical Manifestation of Warts

Warts can be classified into several types based on their appearance and common locations.

Type ofWart	Appearance	Common Locations	
Common warts	Rough, raised bumps	Hands, fingers	
Plantarwarts	Hard, grainy growth	Heels, balls of feet	
Flat warts	Flat-topped, slightly raised lesions	Face(in children), beard area (in men), legs (in women)	
Genital warts	Flat lesions, small cauliflower- like Bumps ortiny stem like protrusions	Vulva,vagina,cervix,penis,scrotum, anus	
Periungual warts	Raised or flat rough growths	Around or under nails	
Filiformwarts	Long, narrow projections	Face, neck, eyelids	
Butcher's warts	Small, raised bumps with a rough surface	Hands	
Mosaicwarts	Clustered warts forminglarger patches	Feet, hands	
Oral warts	Small, smooth or rough growths on the oral mucosa	Inside the mouth	

Drug Review

Introduction

Rasashaastra is a branch of Ayurveda that deals with "Rasa dravyaas," materials known for their quick effectiveness, small doses, and wide therapeutic use. These materials can come from plants, metals, oceanic products, and gems.

$Suryakanta \ (Sunstone)^{[13,14,15,31]}$

Suryakanta is a semi-precious stone that falls under the Ratnoparatna section of Rasa Shastra. It is chemically a combination of Sodium, Aluminium, Silicon, Oxygen and Calcium. It shines very much in Sun rays.

Shodana and Marana $^{[13,14,15,31]}$

Shodana of Suryakanta is done using Jayanti swarasa in a dola yantra for 1 prahara to get shuddha suryakanta. The gemstone is then finely powdered and mixed with equal quantity of pure realgar and sulphur and sealed properly in saucers and subjected for heating for 7 times.

Occurrence

Suryakanta occurs in various countries including Burma, Sri Lanka, Madagaskar, Australia, Russia, Sweden, Italy, Brazil and Turkey, U.S.A, Canada and India.

Therapeutic Use

Suryakanta is used orally as Medhya and Rasayana and externally in Kshudra roga. In Astanga Hrudaya we can get the direct reference of External usage of Suryakanta in Charmakeela.

Suryakanta in Charmakeela Treatment^[16,17]

In Samhita, many scholars have mentioned the use of Agnikarma treatment in minor diseases. However, the authors of Rasashastra have only explained the oral use of Suryakanta. In Astanga Hrudaya, there is a direct reference to the external usage of Suryakanta in Charmakeela and other minor diseases.

Acharya Arunadatta also mentioned the same in his commentary of "Sarvanga Sundari" on "Astanga Hrudaya". He stated that thermal cautery is suitable for several diseases including Masaka (black moles), angaglani (weakness of the body parts), murdharti (diseases of the head), mantha (adhimantha, glaucoma), keela (charmakeela/warts), and tilakalika spots/moles similar to size & shape of a gingily seed.

In these conditions, thermal cautery is conducted on the skin with the help of godanta (cow's tooth), suryakanta stone, arrow, and other rods.

Astanga Sangraha's sutra sthana 40th chapter also mentioned the usage of suryakanta in charmakeela and other minor diseases.

Sunstone Overview^[25-36]

Introduction

Sunstone, a type of aventurescent feldspar, was originally used for near colorless oligoclase feldspar with aligned red or orange hematite or goethite inclusions that produced a reflective effect called aventurescence.

Geological Formation

Sunstone is often found in association with plutonic rocks, such as granite and pegmatite. It is primarily composed of a type of feldspar called orthoclase. Sunstone is distinguished by

the presence of copper and hematite inclusions. The formation of Sunstone involves heat, pressure, and slow cooling.

Source

Sunstone can be found in various locations around the world. The Oregon Sunstone found in the southeastern part of Oregon, United States, is one of the most well- known and commercially important varieties. In Labrador, Canada, a variety known as Labradorite Sunstone can be found. Norway is another location where Sunstone can be found, particularly in the area of Larvik.

Sunstone Sources and Properties Global Sources

Sunstone can be found in various locations around the world. Notable sources include Tanzania, known for its range of colors, and India, known for its orange and red hues. Sunstone deposits have also been discovered in various parts of India, including Karnataka, Andhra Pradesh, and Rajasthan. Other countries like Australia, Brazil, Madagascar, Mexico, Russia, and Sri Lanka also contribute to the global supply of this gemstone.

Properties^[26]

Sunstone's physical properties contribute to its appeal as a gemstone. These include:

- a) Color: Sunstone displays a range of warm and vibrant colors due to the presence of copper impurities in the orthoclase feldspar.
- **b)** Transparency: Sunstone is typically transparent to translucent[136-148^].
- c) Optical Phenomena: Sunstone exhibits several optical phenomena, including adularescence and the schiller effect.
- **d)** Crystal Structure: Sunstone is a type of orthoclase feldspar with a monoclinic crystal structure.
- e) Cleavage: Sunstone has two well-developed cleavage directions due to its crystal structure.
- **f) Hardness**: Sunstone has a Mohs hardness of 6 to 6.5.

Sunstone Varieties and Applications^[26]

Varieties

Sunstone encompasses a range of types and varieties, each with its own uniquecharacteristics and origins. Notable types include.

- Oregon Sunstone: Known for its vibrant colors and ability to display optical phenomena.
- Labradorite Sunstone: Characterized by its labradorescence—a play of colors with flashes of blue, green, and golden hues.
- Indian Sunstone: Known for its warm colors, such as shades of orange andred.
- **Tanzanian Sunstone**: Displays a range of colors and is valued for itstransparency and play of colors.
- **Norwegian Sunstone** (**Larvikite**): Known for its dark gray to black background color with flashes of blue or silver.

Applications^[26]

Sunstone has various applications due to its beauty, optical phenomena, and durability. These include.

- **Jewelry**: Sunstone is widely used in jewelry design.
- Ornamental Objects: Suitable for ornamental objects such as statues, carvings, and figurines.
- Collectibles: Sought after by collectors due to its rarity and unique optical properties.
- **Metaphysical and Healing Properties**: Believed to possess properties that enhance creativity, personal power, and positive energy.
- Lapidary Art: Suitable for use in lapidary art.

Evaluation and Grading of Sunstone^[26]

The evaluation and grading of Sunstone involve assessing various factors that contribute to its quality and value. These include.

- Color: The ideal Sunstone has a rich, vibrant color with good saturation.
- Transparency and Clarity: Transparent specimens are generally morevaluable.
- **Optical Phenomena**: The presence and intensity of optical phenomena can increase the stone's value.
- Cut and Shape: A well-cut Sunstone will maximize its color, brilliance, and optical effects.
- Size and Carat Weight: Larger stones tend to be rarer and more valuable.
- **Origin**: The origin of Sunstone can influence its value and demand.

Sunstone Mining and Industry^[26]

The Sunstone mining industry involves various activities related to the extraction, processing, trading, and manufacturing of Sunstone. Key aspects of the industryinclude.

- Mining Methods: Traditional mining techniques are typically used to extractSunstone.
- Extraction and Processing: After extraction, the Sunstone-bearing rock is processed to separate the gemstone material from the surrounding rock.
- Cutting and Lapidary: Once processed, Sunstone rough is sent to cutting and lapidary workshops.

Name	Botanical/chemicalname	Family	Action
Kumari ^[39-40]	Aloe vera	Lilliaceae	Vrana Ropana, KaphaPittahara.
			Kusthaghna, Deepana, Pachana,
Amalaki ^[37,38]	Phyllanthus emblica	Euphorbiaceae	Anulomana, Rechana, Virechana,
Vibhitaki ^[37,38]	Terminalia bellirica Roxb.	Combretaceae	Tridoshahara,Rasayana,
Haritaki ^[37,38]	Terminalia chebula	Combretaceae	Chakshushya,Meha, Saraka,
			Vishamajvaranashini.

DISCUSSION

This study aimed to assess the effect of Agnikarma with Suryakanta in the management of Charmakeela (Common warts). The discussion is made on the following headings: review of literature, patients of Charmakeela who underwent the study, materials and method, clinical study, results, and mode of action. Charmakeela is a common disease encountered in general practice and is explained by Acharya Sushruta in kshudra roga. The clinical features of charmakeela are similar to warts, which are benign proliferations of the skin and mucosa caused by infection of keratinocytes by subtypes of the human papilloma virus (HPV). Warts have been mentioned in Egyptian, Greek, and Roman eras, but there is no reference to them in pre-vedic and vedic eras. Modern treatments for warts include chemical cautery (using salicyclic acid), Electro-surgery, Cryotherapy, and laser therapy, but these procedures can be time-consuming, costly, and have rare major complications. In Ayurveda, agnikarma is superior to other treatments for charmakeela such as shastrakarma and ksharakarma. Acharya Arunadatta mentioned the usage of suryakanta on charmakeela in his commentary "Sarvanga Sundari" on Astangahrudaya.

CONCLUSION

- 1) Description regarding *Charmakeela* and *Agnikarma* has been explained in the *ayurvedic* classic literature.
- 2) Description regarding warts has been explained in ancient Egyptian and Greek literature.

- Warts along with causative organism and its classification has been described in modern books and it has similar clinical feature as of *Charmakeela*.
- 3) Description regarding properties, origin and usage of *suryakanta* has been mentioned in various *Rasashastra* literature under *Uparatna varga*.
- 4) It was observed that *Kumari swarasa* played important role in wound healing.
- 5) It was observed that many patient came for *charmakeela* treatment for cosmetic purpose to prevent social embarrassment and for better look.
- 6) It was observed that Agnikarma played a very important role in relieving the sign and symptoms of *charmakeela*.
- 7) As one sitting of *Agnikarma* procedure seems adequate in the conditions of *charmakeela*, instead one or more sitting would be needed for complete management.
- 8) It was also observed that the *dagda vrana* [scar produced by *Agnikarma* also almost completely came to normal skin so that patient is not effected by the cosmetic or ugly scar
- 9) *Agnikarma* neutralizes the aggravated *vata* and *kapha dosha* and helps in relieving the main symptoms like *toda*, *kandu* etc and burning *Charmakeela*.
- 10) As said by *Acharya's* the recurrence rate with *Agnikarma* is not found but here it is depends on the extent of burning the *charmakeela*, because sometimes some fragments of *charmakeela* remain inside the skin due to improper *agnikarma* or due to insufficient heat transfer, It may leads to recurrence of *Charmakeela*.

REFERENCE

Bibliography

- Dr.Priyavrat Sharma; Sushruta samhita; Vol-2,Nidanasthana; 2nd chapter; Sloka no 18; Reprint, 2010; chapter 10; page-151.
- 2. Ahmad M.Al Aboud¹; Pramod K. Nigam²; Wart; Treasure Island(FL); StatPearls Publishing; 11/2020; https://www.ncbi.nlm.nih.gov/books/NBK431047/.
- 3. Davidson's principle of medicine; chapter 21st; 22nd Edition 2014print; Pg.no-1084.
- 4. Murthyshrikantha K R; Astanga Hridayam; Nidana sthana; 7th chapter; 57-58th sloka, Reprint-2006, Varanasi; Chowkamba krishna das academy, pg no-75.
- 5. Murthyshrikantha K R; Astanga Hridayam; Uttara sthana; 31st chapter; 25b- 26th sloka; Reprint-2009, Varanasi; Chowkamba Krishnadas academy, Pg no-295.
- 6. DR.S.Das, A concise textbook of surgery; published by Dr.S Das, Kolkata; 6th Edition; Reprint, 2010; chapter 10; page-151.

- 7. University of Washington; Treating Warts at Home; Reprints on Health online: http://healthonline.washington.edu.
- 8. Kaviraj Dr.Ambikadatta Shastri; Sushruta samhita; Varanasi; Chowkhambha Publishers; Edition-Reprint-2018; Nidhana sthana-13thchapter 44thsloka; Pg no-342.
- 9. Dr.Syyed Mohammed Jalaludheen-Outline of shalyatantra; Varanasi; Chaukhambha Publishers-Edition-Reprint, 2016; Pg no-364.
- 10. Sekhar Namburi U R; Omprakash; Babu G; A review management of warts in ayurveda; AYU, 2011; 32: 100-2. Ayujournal.org.
- 11. Aclaris Therapeutics, Inc.- "A RANDOMIZED, DOUBLE-BLIND, VEHICLE-CONTROLLED, PARALLEL GROUP STUDY OF A-101 TOPICAL SOLUTION APPLIED ONCE A WEEK IN SUBJECTS WITH COMMON WARTS"- 05/12/2017-PROTOCAL NO:A-101-WART-202.
- 12. Dr. Priyavrat sharma; Dravyaguna vigyana; Vol-2; Tikshna virechana gana; Kumari; Varanasi; Chaukhambha Publishers; Edition-Reprint, 2005; Chapter-183; Pg no: 446-447.
- 13. Acharya Shree Vagbhata; Dr.Siddhi Nandan Mishra; Rasaratna Samucchaya; Uparatna; Varanasi; Chaukhamba Orientalia; Edition-Reprint, 2011; Pg no-128-129.
- 14. Pt. Vishwanatha Dwivedi(Vaidya)-Rasendra Sambhava; Varanasi; Krishnadas Academy; Reprint, 1997; Pg no-163-164.
- 15. Pranacharya Shree Sadananda Sharma; Pt.Kashinath Shastri-RasaTarangini Commentry; Varanasi; Motilal Banarasidas Publishers; Edition-Reprint, 2004; 13th Taranga-Pg no-639-640.
- 16. Acharya Vagbhata; Astanga Hrudaya; Acharya Aruna Datta-Sarvanga Sundara Commentry; Bhisagacharya Harisastri paradakara Vaidya Edited; et.al; Varanasi Chaukhamba Orientalia; Reprint, 2014; Pg No;358; Sutra Sthana-Sloka-41; UttaraSthana; Sloka-26; Pg No-889; Nidana Sthana; Sloka-57-58; Pg No-495.
- 17. Dr.R.VIDYANATH-Illustrated Astanga Hrudaya on Astanga Hridaya Sutrasthana; Varanasi; Chaukhambha Publishers; Edition-Reprint-2018; Chapter No- 30th-45th Sloka; Chapter-26th Sloka-27-28th.
- 18. Madhavakara; Prof.K.R.Srikantha Murthy; Madhava Nidana; Varanasi; Chaukhambha Orientalia; Edition-Reprint, 2016; Pg NO-28; Sloka-43-44.
- 19. Dr. Lokendra Pahadiya (15/10/2017). Title. [CHARMAKEELA AS CUTANEOUS WARTS: A LITERARY REVIEW]. Available from: 2017 URL. [https://www.wjpls.org/download/article/20102017/1509432214.pdf]

- 20. Caraka Samhita Online. Tistraishaniya Adhyaya. [Caraka Samhita]. Available from [https://www.carakasamhitaonline.com/index.php/Tistraishaniya_Adhyaya]
- 21. Wikipedia.Wart.[12October2007]. Available from: [https://en.wikipedia.org/wiki/Wart (2023)].
- 22. D A Burns (1992 Jan). Title. ['Warts and all'--the history and folklore of warts: a review'].[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1293460/].
- 23. Marianna Karamanou, Emmanovil Agapitos, Antonis Kousoulis, George Androutsos (17 August 2010). Title. [From the humble wart to HPV: a fascinating story throughout centuries]. Available from: [https://link.springer.com/article/10.1007/s12156-010-0060-1.]
- 24. Prof.K.R.Srikantha Murthy; Astanga Sangraha of Vagbhata; Sutrasthana; Varanasi; Chaukhamba Orientalia; Edition-Reprint, 2002; Chapter-34; Sloka-31.
- 25. Bigbeadlittlebead 2011 Visual Guide to Gemstones and Minerals [https://www.bigbeadlittlebead.com/guides_and_information/BBLB_Gemstones_And Minerals Guide.pdf]
- 26. Mahmut MAT 2023 Sunstone [https://geologyscience.com/minerals/silicates-minerals/sunstone/]
- 27. R Nave 2020 Melting Points of Rocks [http://hyperphysics.phy-astr.gsu.edu/hbase/Geophys/meltrock.html]
- 28. Minerals.net 1997 COMPLETE INFORMATION GUIDE TO ROCKS, MINERALS, & GEMSTONES [https://www.minerals.net/mineral-variety/Mineral/Sunstone.aspx img rck]
- 29. The Editors of Encyclopaedia Britannica 2023 Sunstone [https://www.britannica.com/science/sunstone]
- 30. Chisholm Hugh 1911 "Sunstone" [https://en.wikipedia.org/wiki/Sunstone]
- 31. Dr. Lalitha M. Vatar Dr. Chandrashekhar Kuppi june 2021 "DETAILED STUDY OF ANCIENT AND CONTEMPORARY KNOWLEDGE OF UPARATNA W.S.R TO MINEROLOGICAL IDENTIFICATION AND PHYSICOCHEMICAL CHARACTERIZATION" [www.wjpmr.com/Lalitha et al.]
- 32. OVERVIEW ON AYURVEDA PRAKASHA A TEXT OF INDIAN ALCHEMY, [https://www.academia.edu/Sharma et al.]
- 33. P. Bayliss April 2007 Gems [https://www.researchgate.net/publication/250273606_Gems_6th_edition_By_M_O% 27Donoghue_editor_Elsevier_Amsterdam_The_Netherlands_2006_hardbound_874_p

- ages_32_colored_plates_9000_ISBN_0750658568]
- 34. Joel E. Arem, Ph.D., FGA, Barbara Smigel, PhD. GG, 2023 Oregon Sunstone Value [https://www.gemsociety.org/article/oregon-sunstone-jewelry-and-gemstoneinformation/]
- 35. dnskhiem 2023 a-z-gemstones [https://pdfcoffee.com/qdownload/a-z-gemstonespdf-pdf-free.html]
- 36. Eugene C. Robertson THERMAL PROPERTIES OF ROCKS [https://pubs.usgs.gov/of/1988/0441/report.pdf] Triphala:-
- 37. Christine Tara Peterson, PhD Kate Denniston, BS Deepak Chopra, MD 2017 Aug
 Therapeutic Uses of Triphala in Ayurvedic Medicine
 [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5567597/]
- 38. Bali chouhan, Ramesh Chandra Kumawat, Mita Kotecha, A Ramamurthy, SumitNathani; August 2013 Triphala: A comprehensive ayurvedic review [https://www.researchgate.net/publication/269846920_Triphala_A_comprehensive_ayurvedic_review] Kumari:-
- 39. Sonia Dhiman, Ashwani Upadhyaya,Navneet Sharma, Rashmi Srivastava, Seema Shukla,2012 Dec Comparative study of kumari swarasa and kanyasara inmanagement of kashtartava [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3800869/]
- 40. Manish Pamnani, Kamini Kaushal November 2019 CRITICAL REVIEW OF KUMARI (ALOE VERA) AN AYURVEDIC HERB [http://www.iamj.in/prposts/2019/images/upload/2049_2055_1.pdf]