

A COMPREHENSIVE REVIEW OF *TWAKARSH* (SKIN OUTGROWTH) WITH SPECIAL REFERENCE TO PAPILLOMA: HOLISTIC MANAGEMENT IN AYURVEDA

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ABSTRACT

Cutaneous outgrowths, clinically manifesting as warts or papillomas, are a common dermatological concern caused by the Human Papillomavirus (HPV). In Ayurveda, such conditions are primarily classified under the broad term *Twakarsha* which literally translates to "roughness or outgrowth of the skin." Despite their often-benign nature, their persistent, recurrent, and sometimes cosmetically distressing presentation necessitates effective management. Objective - This review aims to systematically correlate the Ayurvedic concept of *Twakarsha* with modern dermatological understanding of papilloma, analyze its etiopathogenesis (*Nidana*, *Doshic Dushti*, *Samprapti*), and critically evaluate the holistic treatment modalities described in classical texts including *Shodhana* (bio-purification), *Shamana* (palliative care), and topical interventions. Methods - A meticulous search of classical Ayurvedic texts including *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya* and their principal commentaries

was conducted to compile data on *Twakarsha*. Contemporary medical literature from databases like PubMed, Google Scholar, and *DHARA* was also reviewed to establish a clinicopathological correlation. Results - *Twakarsha* is primarily a disorder of *Tridosha* with a strong predominance of *Kapha* and *Vata Dosha*, vitiating the *Twaka* (skin), *Mamsa* (muscle

tissue) and *Rakta* (blood) *Dhatus*. Its *Samprapti* (pathogenesis) involves the formation of *Granthi* (cystic swellings) or *Arbuda* (neoplasms). Ayurvedic management is multifaceted. *Shodhana* therapies, especially *Virechana* (therapeutic purgation) and *Raktamokshana* (bloodletting) are indicated for deep-rooted purification. Conclusion - Ayurveda offers a robust, holistic paradigm for managing *Twakarsha*/papilloma by addressing the root cause (*Moola Chikitsa*) through *Doshic* balance and *Dhatu* purification, rather than mere local destruction.

KEYWORDS: *Twakarsha*, Papilloma, *Charmakeela*, *Raktamokshana*, *Shodhana*, *Shamana*.

INTRODUCTION

Skin diseases have plagued humanity since time immemorial, and their management features prominently in all ancient medical systems. Among these, cutaneous outgrowths like warts, tags and papillomas are extremely common, with a lifetime risk of acquisition estimated to be as high as 80%.^[1] Caused by various strains of the Human Papillomavirus (HPV), these benign epithelial tumors infect the keratinocytes of the skin and mucous membranes, leading to hyperkeratosis and acanthosis.^[2] Modern medicine offers an array of treatment options including cryotherapy, electrocautery, laser ablation, topical salicylic acid, imiquimod, and surgical excision. However, these modalities are often painful, can cause scarring, and are plagued by high recurrence rates due to their focus on lesion destruction without addressing the underlying viral susceptibility and host factors.^[3]

Ayurveda, the ancient Indian system of medicine, provides a unique and holistic perspective on health and disease.

व्यानस्तुप्रकूपितः श्लेष्माणपरिग्रह्यबहिः स्थिराणिकीलवदशांति,
निर्वर्तयतितानिचर्मकीलान्यर्शासीत्याचक्षते ॥ (सु.नि.-2/20)

Under the broad umbrella of *Kushtha* (skin disorders) and *Granthi* (cystic swellings) or *Arbuda* (neoplasms) Ayurvedic seers have described a condition named *Twakarsha*.^[4]

त्वग्धिष्ठानमेवचर्मकीलाख्यमशो | (सु.नि.- 2/18) डल्हण टीका

The term is a compound Sanskrit word *Twak* meaning ‘skin’ and *Arsh* meaning ‘to protrude’ or ‘outgrowth’. This term aptly describes various protuberant skin lesions, including papillomas.

This review article seeks to

- Establish a comprehensive correlation between *Twakarsha* and cutaneous papilloma.
- Delve into the Ayurvedic etiopathogenesis (*Samprapti*) of the condition.
- Systematically compile and analyze the holistic management principles and specific modalities described in Ayurvedic literature.
- Provide a scientific rationale for the use of these Ayurvedic interventions in a modern clinical context.

MATERIALS AND METHODS

This is a qualitative review article based on a systematic analysis of literature from two primary sources:

Ayurvedic Sources

- *Charaka Samhita*
- *Sushruta Samhita*
- *Ashtanga Hridaya & Ashtanga Sangraha*
- *Madhava Nidana*
- *Bhavaprakasha*
- *Sharngadhara Samhita*
- *Yogaratanakara*

Modern Sources

- Electronic databases (PubMed, Google Scholar, Scopus, Modern text books, *DHARA* - Digital Helpline for Ayurveda Research Articles).

All relevant shlokas (verses) describing etiology, symptoms, and treatment of *Twakarsha* and similar conditions; modern studies investigating the antiviral, immunomodulatory, and anti-proliferative properties of Ayurvedic drugs mentioned in the context of skin outgrowths. The compiled data was then synthesized to present a coherent narrative on the conceptualization, pathogenesis, and integrative management of *Twakarsha*/papilloma.

CONCEPTUAL CORRELATION: TWAKARSH AND PAPILOMA**Ayurvedic Perspective (*Twakarsha*)**

- According to *Acharya Sushruta* in the *Nidana* describes *Twakarsha* explicitly.^[5] He states that due to the vitiation of *Kapha* and *Vata Doshas*, numerous, rough, hard, and painless

outgrowths appear on the skin, which are called *Twakarsha*. *Acharya Dalhana* the renowned commentator, clarifies this further by stating "*Twakarsha* means *Charmakeela*."^[6] *Keela* means a nail or peg, indicating a projecting, horn-like growth. This description is unmistakably similar to filiform warts.

- Other acharyas like *Acharya Vagbhata* (*Ashtanga Hridaya*)^[7] and *Kashyapa* (*Kashyapa Samhita*)^[8] have also described similar conditions under different nomenclature, often grouping them under *Kshudra Kushtha* (minor skin diseases) or *Granthi*.

Modern Perspective (Papilloma/Warts)

- Papillomas are benign squamous epithelial tumors caused by HPV infection. Over 100 HPV types are known, with specific types causing common warts (*verruca vulgaris*), plantar warts, flat warts (*verruca plana*), and filiform warts⁹. The virus enters through micro-abrasions in the skin, has a long incubation period (sometimes months), and replicates in the nucleus of keratinocytes, causing uncontrolled cell proliferation and hyperkeratosis.

CORRELATION BETWEEN TWAKARSH AND PAPILOMA

Contents	Ayurvedic Parameter	Morden Correlation
Term	<i>Twakarsh</i> , <i>Charmakeela</i>	Papilloma, Verruca, Wart
Primary Etiology	<i>Tridosha Prakopa</i> , especially <i>Vata- Kapha</i>	Human Papilloma Virus (HPV) Infection
Pathogenesis	Vitiation of <i>Rasa-Rakta</i> leading to uncontrolled growth in <i>Twaka</i>	HPV- induced hyperproliferation of epidermal keratinocytes
Morphology	<i>Shtula</i> (Protruded), <i>Vivrita</i> (raised)	Exophytic, projecting growth
Surface	<i>Parusha</i> (Rough)	Hyperkeratotic, Rough, Verrucous
Consistency	<i>Kathina</i> (Hard)	Firm
Appearance	<i>Ghana</i> (hard), <i>Parusha</i> (rough), <i>Prabahuta</i> (numerous)	Hyperkeratotic, rough papules, often multiple
Color	<i>Savarna</i> or <i>Krishna</i>	Skin/Pink/Brown/Blakish
Sensation	<i>Asvedana</i> (non-sweating), <i>Nistoda</i> (painless)	Usually asymptomatic, pain in plantar warts
Pathology	Has a <i>Moola</i> (root)	Has a base extending into the dermis
Symptom	<i>Anushana</i> (Non tender), <i>Sthira</i>	Usually asymptomatic, non tender

ETIOPATHOGENESIS (NIDANA AND SAMPRAPTI)

Etiological Factors (*Nidana*)

According to Ayurveda, disease is a consequence of the interaction between causative factors and the individual's constitution. The *Nidana* (causes) for *Twakarsha* can be understood under two headings

Dietary Factors (*Ahara Janya Nidana*)

- Excessive intake of Guru (heavy to digest), Ama-producing foods.
- Excessive consumption of *Dadhi* (curd), *Matsya* (fish), incompatible foods (*Viruddha Ahara*).
- *Adhyashana* (eating over previous undigested food).
- *Kapha*-aggravating foods like excess sweets, dairy and fried items.

Lifestyle Factors (*Vihara Janya Nidana*) -

- *Viruddha Cheshta* (unwholesome activities).
- *Divaswapna* (daytime sleep).
- Exposure to contaminated water and soil (*Dushta Jala-Sparsha*).

These all factors collectively lead to the vitiation of *Kapha* and *Vata Doshas*.

Pathogenesis (*Samprapti*)

The Samprapti (pathogenesis) of Twakarsh can be described in the following stages¹⁰:

- *Dosha Dushti* - Provocation of *Kapha* and *Vata*.
- *Dhatu Dushti* - The vitiated *Doshas* lodge in the *Twaka* (skin) and *Mamsa Dhatu* (muscle tissue), also involving *Rakta Dhatu* (blood). *Kapha* provides the substance for growth, while *Vata* is responsible for the irregular, protruding morphology.
- *Srotas Dushti* - The *Rasavahi* (channels carrying nutrients) and *Mamsavahi Srotas* (channels of muscle tissue) get obstructed.
- *Vyadhi Utpatti* - The *Doshas* localized in the *Dhatus* manifest as multiple, hard, rough, and painless outgrowths on the skin surface – the clinical entity known as *Twakarsha*.
- This pathogenesis aligns with the modern understanding where a compromised local immune response (akin to *Dhatu* and *Srotas Dushti*) allows the HPV virus (akin to vitiated *Doshas*) to proliferate and cause abnormal growth of epidermal cells.

HOLISTIC MANAGEMENT PRINCIPLES (*CHIKITSA SUTRA*)

The management of *Twakarsha* in Ayurveda is not merely local destruction but a systemic approach to correct the underlying *Doshic* imbalance and purify the affected *Dhatus*.

***Nidana Parivarjana* (Avoidance of Causative Factors)**

- This is the first and most crucial step to prevent progression and recurrence.

Shodhana Chikitsa (Bio-purification Therapy) - For deep-seated, multiple, or recurrent *Twakarsha*, *Panchakarma* procedures are indicated.

- *Virechana* (Therapeutic Purgation) - Highly effective in eliminating excess *Kapha* and *Pitta* doshas from the body through the anal route. It cleanses the *Rakta* and *Mamsa Dhatus*.^[11] *Trivrita Leha*, *Avipattikara Churna* are common formulations.
- *Raktamokshana* (Bloodletting) - Considered the prime treatment for skin disorders involving *Rakta Dushti*. It directly eliminates vitiated blood, removes toxins, and reduces localized *Kapha* and *Pitta*.^[12] *Pracchana* (scarification) or *Siravedha* (venesection) are chosen based on the severity.

Shamana Chikitsa (Palliative Internal Medicines) - These oral drugs pacify the Doshas and have specific actions against growths.

- *Kanchnaar Guggulu* - The most celebrated formulation for any type of *Granthi* (cyst) or *Arbuda* (tumor). It contains *Kanchnaar* (*Bauhinia variegata*) as the main ingredient, which has proven anti-proliferative properties along with *Guggulu* (*Commiphora mukul*) which acts as a carrier deep into the tissues.^[13]
- *Gandhak Rasayana* - A purified sulfur preparation with potent antiviral, antibacterial, and blood-purifying (*Raktashodhaka*) properties. It enhances immunity and fights chronic infections.^[14]
- *Arogyavardhini Vati* - Contains *Shuddha Parad* (purified mercury), *Shuddha Gandhak* (sulfur), and other herbs. It is a powerful detoxifier and is used for stubborn skin diseases and growths.
- Other Formulations - *Panchanimba Churna*, *Khadiradi Vati*, *Manibhadra Guggulu*.

Bahiparimarjana Chikitsa (Topical Local Treatments) - This involves direct application of medicinal preparations to the lesion.

- *Kshara Karma* - Application of alkaline pastes prepared from herbs like *Apamarga Kshara* (*Achyranthes aspera*) or *Snuhi Ksheera* (*Euphorbia nerifolia latex*). This is a chemical cauterization method that destroys the abnormal tissue at its root.^[15]
- *Lepa* (Medicated Paste) - Pastes made from herbs like *Haridra* (Turmeric - anti-inflammatory, antiviral), *Daruharidra* (*Berberis aristata*) and *Rasayana* (cinnabar) are applied.

- *Pratisarana* (Rubbing with Medicinal Powder) - The outgrowth is rubbed with fine powders of *Manahshila* (Realgar) *Haridra*, *Gairika* (Red Ochre) to cause mild abrasion and drug delivery.

DISCUSSION

The strength of Ayurvedic management lies in its multi-targeted approach. Here's the scientific rationale behind key interventions: Modern studies suggest bloodletting/*Raktmokshan* may help in removing inflammatory mediators, cytokines, and viral particles localized in the capillaries feeding the lesion. It may also stimulate a localized immune response.^[16] *Shaman chikitsa* like by *Bauhinia variegata* extract has been shown to induce apoptosis (programmed cell death) in abnormal cells and inhibit cell proliferation, making it highly relevant for benign growths like papillomas.^[17] Formulation made by Purified sulfur (*Gandhak*) has documented antimicrobial and keratolytic properties. It helps in peeling off the infected epidermal layer and has a direct antiviral effect against HPV.^[18] The *Kshara* alkaline nature of *Apamarga* or *Snuhi* latex causes chemical coagulation of cellular proteins, effectively destroying the wart tissue with minimal damage to surrounding healthy skin. This is analogous to modern salicylic acid therapy but derived from natural sources. This combination of systemic purification (*Shodhana*), immunomodulation (*Rasayana*), and targeted local destruction provides a comprehensive strategy that not only removes the existing lesion but also aims to prevent recurrence—a significant advantage over many conventional methods.

CONCLUSION

Twakarsha (papilloma) is a classic example where Ayurveda demonstrates its profound understanding of pathology and holistic treatment. It moves beyond the "see and treat" approach to a "understand, purify, and heal" paradigm. The correlation between the *Kapha-Vata* vitiation and HPV pathogenesis, though described in different lexicons, points towards a common understanding of host-pathogen interaction and tissue response. The integrated protocol of *Nidana Parivarjana*, *Shodhana* (especially *Raktamokshana*) and in *Shaman chikitsa* oral administration of *Kanchnaar Guggulu* and *Gandhak Rasayana* followed by topical *Kshara* application, presents a robust model for effective and recurrence-free management.

Future research should focus on

- Designing well-controlled, randomized clinical trials to test the efficacy of this integrated protocol against standard modern care.
- Conducting phytopharmacological studies to isolate the active antiviral compounds in herbs like *Kanchnaar* and *Gandhak*.
- Exploring the immunomodulatory effects of *Virechana* and *Raktamokshana* on specific immune markers in HPV patients.
- By validating these time-tested principles with modern scientific rigor, Ayurveda can offer a valuable, holistic, and effective contribution to global dermatological care.

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