

CASE STUDY ON A NON-INVASIVE INNOVATIVE TREATMENT MODULE IN DRY EYES (SHUSKAKSHIPAKA) -BY MARMA THERAPY

^{*1}Dr. Abhishek Pathak, ²Dr. Vinod M. Jadhav and ³Dr. Santosh Pujari

^{*1}PG Scholar Department of PG Studies in Shalakya Tantra S.V.M. Ayurvedic Medical
College, Ilkal, District-Bagalkot-587125, Karnataka.

²Professor & HOD Department of PG Studies in Shalakya Tantra S.V.M. Ayurvedic Medical
College, Ilkal, District-Bagalkot-587125, Karnataka.

³Associate Professor, Department of PG Studies in Shalakya Tantra S.V.M. Ayurvedic
Medical College, Ilkal, District-Bagalkot-587125, Karnataka.

Article Received on
30 April 2024,

Revised on 20 May 2024,
Accepted on 09 June 2024

DOI: 10.20959/wjpr202412-32863



***Corresponding Author**

Dr. Abhishek Pathak

PG Scholar Department of
PG Studies in Shalakya
Tantra S.V.M. Ayurvedic
Medical College, Ilkal,
District-Bagalkot-587125,
Karnataka.

ABSTRACT

Modern technology and equipment have allowed man and science to reach new heights in the realm of medicine. Despite its vedic essence, Ayurveda continues to be widely practised and serves humanity with its own set of principles and philosophy. The Shalakya Tantra primarily addresses ailments that arise above the clavicle and their treatment. Shushkakshipaka, or Dry Eye Syndrome (DES), is a prevalent ocular disorder influenced by diverse factors such as lifestyle modifications, psychological stress, and various sources of ocular surface disturbances. In Ayurveda, Shushkakshipaka is understood as a Vataja or Vata-Pittaja/Vata-Raktaja Vikara, impacting all facets of ocular physiology. The symptoms of DES include Dukha (discomfort), Drishti Vikshepa (visual disturbances), and Ashru Patala Avastha (tear film instability), often leading to Drik Kshata (ocular surface damage). Traditional Ayurvedic treatments address these symptoms through localized and systemic approaches. This study aims to assess the

effectiveness of Marma Therapy in comparison to artificial eye drops (CMC) in alleviating symptoms and improving clinical parameters associated with DES. The findings offer promising insights into potentially cost-effective alternatives for managing DES, providing relief to individuals burdened by the perpetual dependence on palliative measures.

KEYWORDS: Shuskakshipaka, Shalakya Tantra, Marma Therapy, Ayurveda Management of DES.

INTRODUCTION

Shalakya Tantra is a branch of Ayurveda that primarily deals with diseases related to the head and neck region, including the eyes, ears, nose, throat, and oral cavity. It encompasses both preventive and therapeutic aspects of various disorders affecting these areas. The term "Shalakya" is derived from the Sanskrit word "Shalaka," which means a probe or rod-like instrument. This branch of Ayurveda is named so because it involves diagnostic and therapeutic procedures that often employ instruments like probes, applicators, and other specialized tools.

Shalakya Tantra encompasses a wide range of topics, including the anatomy and physiology of the head and neck region, etiology and pathogenesis of diseases affecting these areas, clinical examination techniques, diagnostic procedures, and treatment modalities. Some common conditions addressed under Shalakya Tantra include eye diseases like conjunctivitis, glaucoma, and cataracts, ear disorders such as ear infections and hearing loss, nasal conditions like sinusitis and nasal polyps, throat ailments including tonsillitis and vocal cord disorders, and oral health issues such as dental caries and gingivitis. Therapeutic interventions in Shalakya Tantra may include various forms of medication, external therapies, specialized procedures like *Nasya* (nasal administration of medicated oils or powders), *Karnapoorana* (instillation of medicated oils into the ears), and *Netra Tarpana* (eye nourishment therapy).

Overall, Shalakya Tantra plays a crucial role in maintaining the health of the sensory organs and the upper respiratory and digestive tracts, offering comprehensive care for diseases affecting these vital regions.

Among the most frequent causes of an appointment with an ophthalmologist are dry eyes, which are also referred to as keratoconjunctivitis sicca (KCS), dry eye disease (DED), and dry eye syndrome. The Tear Film and Ocular Surface Society's definition of a dry eye The topic of Dry Eye Workshop II is: "Dry eye is a multifactorial disease of the ocular surface characterized by a loss of homeostasis of the tear film, and accompanied by ocular symptoms, in which tear film instability and hyperosmolarity, ocular surface inflammation and damage, and neurosensory abnormalities play etiologic roles."^[1]

The tear film is made up of three primary components and is between 2 and 5 μm thick over the cornea.^{[2][3][4]} The lipid, aqueous, and mucin components of the tear film milieu are frequently referred to as layers, yet this may be oversimplifying it.^[5] The meibomian glands in the eyelids create the lipid layer, which is the most superficial layer and which keeps tears from evaporating. The lacrimal glands in the orbits and the accessory lacrimal glands (the glands of Krause and Wolfring) in the conjunctiva create the middle aqueous layer, which makes up the thickest part of the tear film. Mucins, or glycoproteins, make up the basal layer and are mostly produced by conjunctival goblet cells. Through the control of surface tension, mucins improve the tear film's ability to spread across the corneal epithelium.^[6]

AIMS – To study the role of Ayurveda in management of Dry eyes with special reference to Shushka-akshipaka.

OBJECTIVE - To study role of Ayurveda to reduce Symptoms of Dry eyes with special reference to Shushka-akshipakain modern era.

Ayurvedic Aspect of Shushka-akshipaka

The Śālākya Tantra branch of Āyurveda, one of the eight traditional branches of this ancient system of medicine, focuses on the etiology, diagnosis, prognosis, prevention, and treatment of diseases affecting areas above the Ūrdhwa jatrugata, such as the eyes, nose, head, and ears. Within this branch, particular emphasis is placed on the Netra^[7], or eyes, which are considered the most important among the sensory organs. Dry eye syndrome (DES) is a complex condition involving abnormalities in tear production and the ocular surface^[8], characterized by symptoms such as irritation, foreign body sensation, dryness, itching, general discomfort, sore eyes, and sensitivity to light.^[9] Current treatment options for DES typically involve the use of lubricating eye drops containing substances like Carboxy methyl cellulose 0.5%, which can alleviate symptoms but may have harmful preservatives and provide only temporary relief. Alternative treatment modalities or surgical interventions are often limited in accessibility and effectiveness. Consequently, the search for more effective and sustainable treatments for dry eye has led to exploration of alternative medical systems, including Āyurveda, to propose and develop alternative therapeutic approaches to address the challenges associated with this condition.

Case Presentation

Patient Details

- Age: 45 years
- Gender: Female
- Occupation: Accountant
- Medical History: No significant systemic illnesses; occasional seasonal allergies.
- Symptoms: Chronic dryness, burning sensation, itching, foreign body sensation, and intermittent blurred vision.

Diagnosis: The patient was diagnosed with moderate Dry Eye Syndrome based on clinical examination and patient-reported symptoms, consistent with Ayurvedic diagnosis of Shushkakshipaka.

Ayurvedic Management

Initial Assessment

Dosha Imbalance: Predominantly Vata-Pitta disturbance.

Treatment Plan

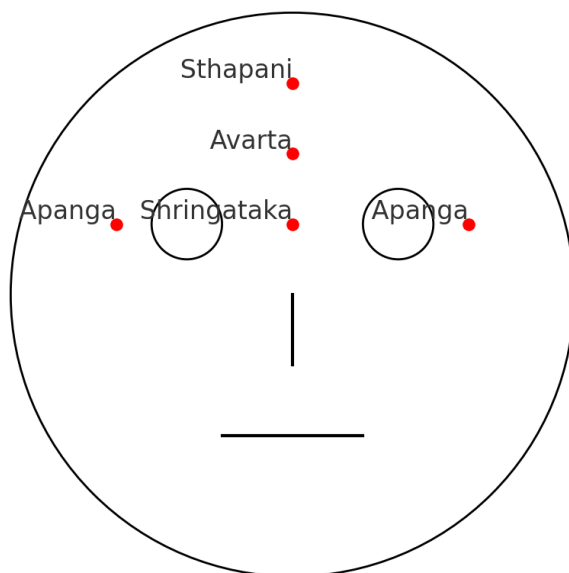
Marmas used in Marma therapy for Dry eye syndrome

1. Sthapani
2. Shringataka
3. Apanga
4. Avarta

Protocol of treatment^[7,8]

S.No.	Marma point	Stimulation time	Sittings of Marma Chikitsa	Total time period
1	<i>Sthapani</i>	0.8 sec.	Two time per day	30 days
2	<i>Shringataka</i>	0.8 sec.	Two time per day	30 days
3	<i>Apanga</i>	0.8 sec.	Two time per day	30 days
4	<i>Avarta</i>	0.8 sec.	Two time per day	30 days

According to their anatomical location of *Marma* points, every *Marma* point will be stimulated for 15-18 times on an average in single sitting.

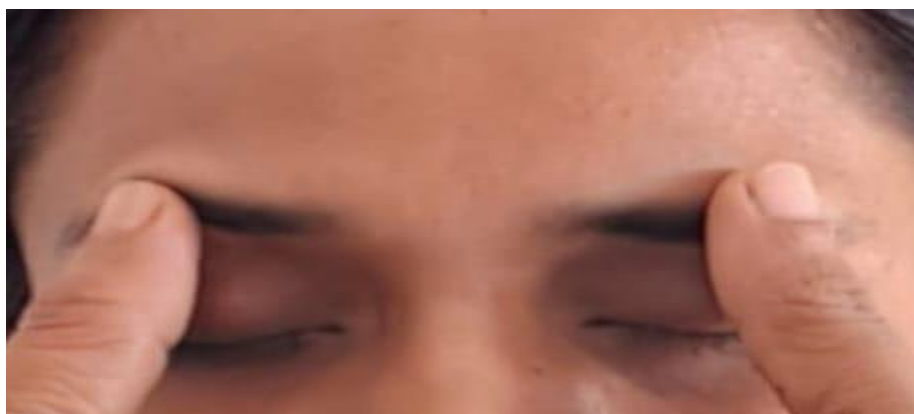


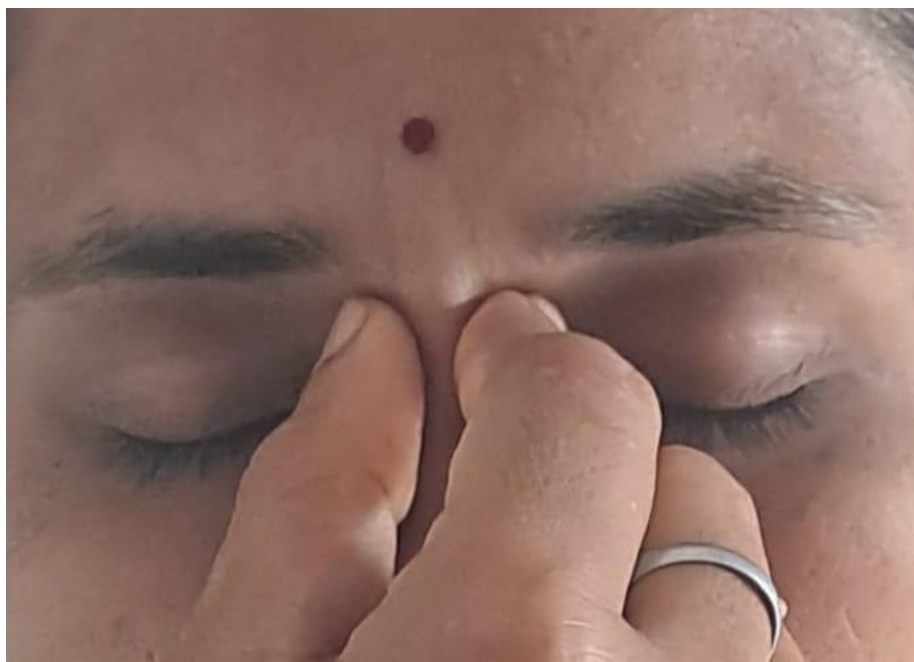
Marma Point On Head

APANAGA MARMA STIMULATION



AVARTA MARMA STIMULATION



SHRINGATAKA MARMA STIMULATION**STHAPNI MARMA STIMULATION**

- Shringataka Marma - Superficial the Shringataka Marmas are located just below the Sthapni Marma. The stimulation is done with the help of tip of index finger and thumb.
- Sthapni Marma- The Sthapni Marma is located between the eyebrow. The stimulation is done by the tip of finger or by joining the thumb of both the hand, pressure is applied by the knuckle of the thumbs.

- Apanga Marma – The Apanga Marmas are situated on Bhurpuchha Adho (eyebrows below outside the eye). A gentle pressure has been applied with the help of tip of index finger on both sides.
- Avarta Marma- The Avarta Marma are situated at the centre of the eyebrows, in the upper border of orbital cavity, on the forehead. The stimulation is done by thumb pressure directly upwards and posteriorly.

Follow-Up and Monitoring

Duration: 8 weeks with bi-weekly follow-up sessions.

Parameters Monitored

- Symptom Score: Using a standardized questionnaire (Ocular Surface Disease Index - OSDI).
- Tear Film Break-Up Time (TBUT): Measured to assess tear film stability.
- Schirmer's Test: To evaluate tear production.

RESULTS

Baseline (Week 0)

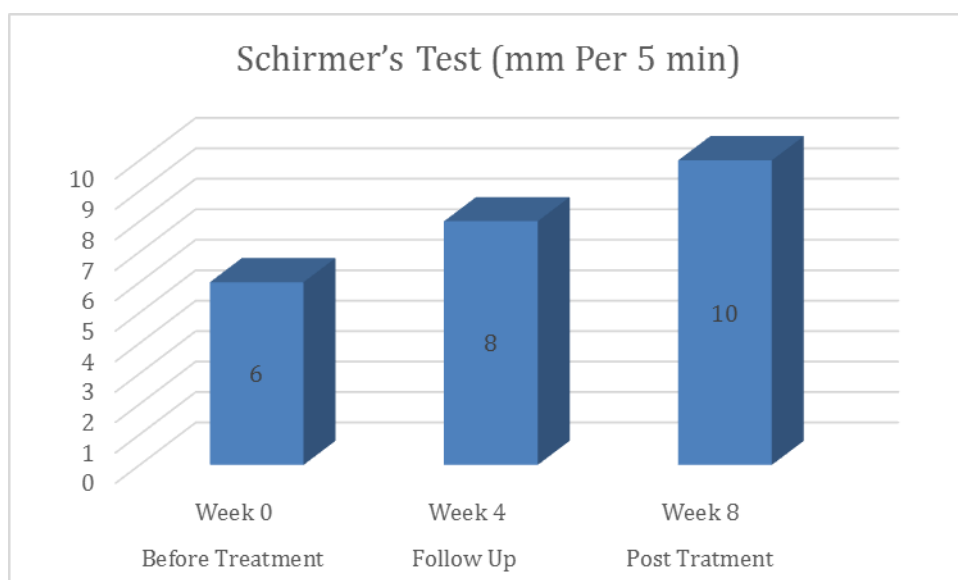
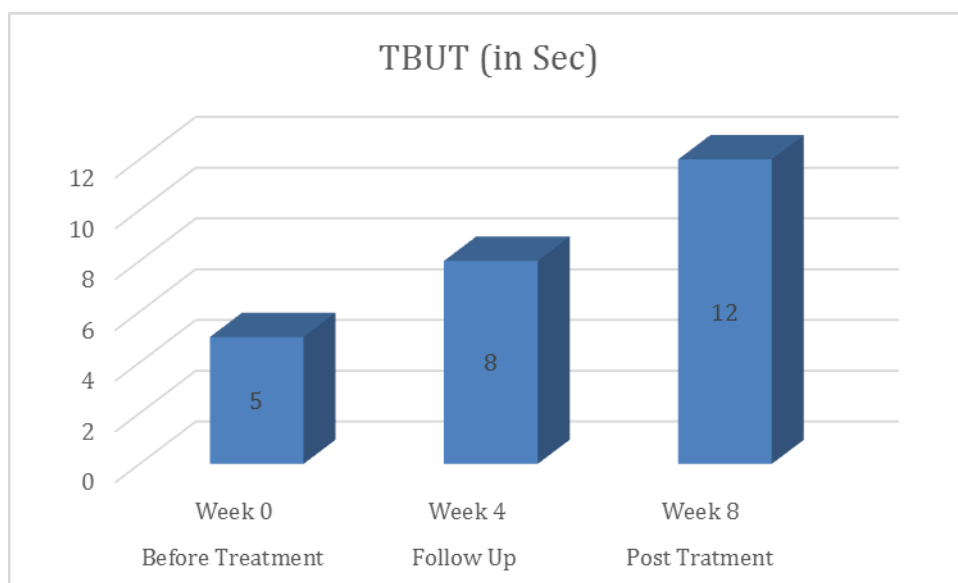
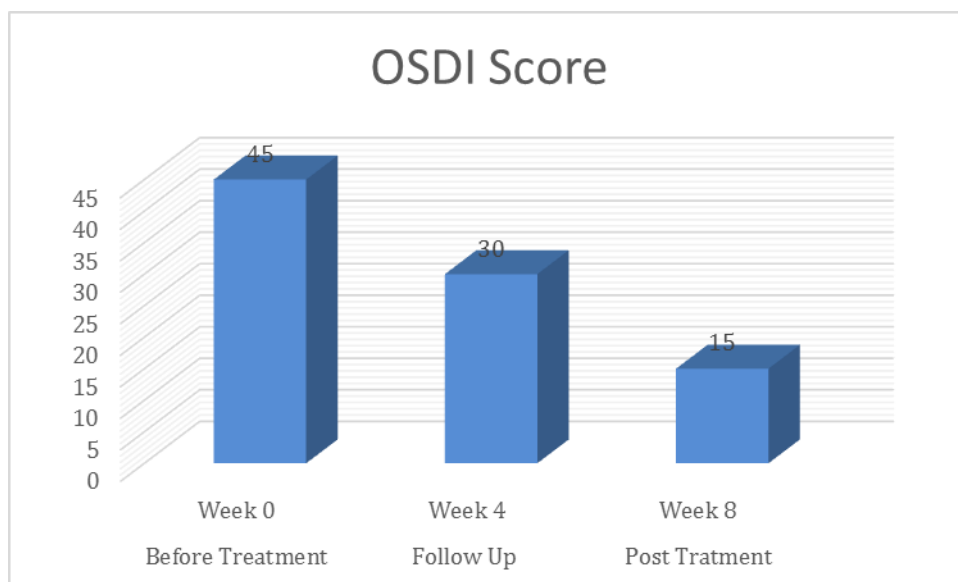
- OSDI Score: 45 (Severe symptoms)
- TBUT: 5 seconds (reduced stability)
- Schirmer's Test: 6 mm/5 min (reduced tear production)

Mid-Treatment (Week 4)

- OSDI Score: 30 (Moderate symptoms)
- TBUT: 8 seconds (improved stability)
- Schirmer's Test: 8 mm/5 min (slightly improved tear production)

Post-Treatment (Week 8)

- OSDI Score: 15 (Mild symptoms)
- TBUT: 12 seconds (significant improvement)
- Schirmer's Test: 10 mm/5 min (improved tear production)



DISCUSSION

Effectiveness: The Ayurvedic treatments -innovative marma therapy, showed significant improvement in the patient's symptoms and clinical parameters. The combination of therapies helped balance the Vata-Pitta dosha, enhance tear film stability, and improve overall ocular health.

Patient Compliance: The patient reported high compliance and satisfaction with the Ayurvedic treatments, noting a preference for natural remedies over conventional artificial tears.

Limitations: The study was limited by the single case design and short follow-up period. Further research with larger sample sizes and longer duration is recommended.

CONCLUSION

This case study demonstrates the potential of Ayurvedic management, specifically marma therapy, in effectively reducing symptoms and improving clinical outcomes in patients with Dry Eye Syndrome. These treatments offer a promising, cost-effective alternative to conventional therapies, emphasizing the importance of integrating traditional medicine into modern healthcare.

REFERENCE

1. Craig JP, Nichols KK, Akpek EK, Caffery B, Dua HS, Joo CK, Liu Z, Nelson JD, Nichols JJ, Tsubota K, Stapleton F. TFOS DEWS II Definition and Classification Report. *Ocul Surf*, 2017 Jul; 15(3): 276-283. [PubMed]
2. King-Smith PE, Fink BA, Hill RM, Koelling KW, Tiffany JM. The thickness of the tear film. *Curr Eye Res*, 2004 Oct-Nov; 29(4-5): 357-68. [PubMed]
3. King-Smith PE, Fink BA, Fogt N, Nichols KK, Hill RM, Wilson GS. The thickness of the human precorneal tear film: evidence from reflection spectra. *Invest Ophthalmol Vis Sci*, 2000 Oct; 41(11): 3348-59. [PubMed]
4. Chen Q, Wang J, Tao A, Shen M, Jiao S, Lu F. Ultrahigh-resolution measurement by optical coherence tomography of dynamic tear film changes on contact lenses. *Invest Ophthalmol Vis Sci*, 2010 Apr; 51(4): 1988-93. [PMC free article] [PubMed]
5. Willcox MDP, Argüeso P, Georgiev GA, Holopainen JM, Laurie GW, Millar TJ, Papas EB, Rolland JP, Schmidt TA, Stahl U, Suarez T, Subbaraman LN, Uçakhan OÖ, Jones L.

- TFOS DEWS II Tear Film Report. *Ocul Surf*, 2017 Jul; 15(3): 366-403. [PMC free article] [PubMed]
6. O'Neil EC, Henderson M, Massaro-Giordano M, Bunya VY. Advances in dry eye disease treatment. *Curr Opin Ophthalmol*, 2019 May; 30(3): 166-178. [PMC free article] [PubMed]
 7. Dr. Sunil Kumar Joshi, Marma chikitsa vigyan, DK traders' publication Delhi, 2nd edition 2012, chepter 4, page no-166.
 8. Dr. G. Phull, R Phull. Clinical approach to marma chikitsa, New Delhi, India, IP Innovative Publication Pvt. Ltd., 2019.