Journal of Molecular Science
Volume 35 Issue 3, Year of Publication 2025, Page 1168-1174
DoI-10.004687/1000-9035.2025.157

Journal of Molecular Science

www.jmolecularsci.com ISSN:1000-9035

Urticaria: Ayurvedic Management Of Udard A Case Report

Dr. Ramchandra P. Babar[1], Dr. Nikhil R. Pawar[2], Dr. Shravani R. Babar[3]
[1]Professor, Department of Kaumarbritya, MAM's Sumatibhai Shah Ayurved Mahavidyalaya, Hadapsar, Pune, M.S.
[2]MD Scholar, Department of Kaumarbhritya, MAM's Sumatibhai Shah Ayurved Mahavidyalaya, Hadapsar, Pune, M.S.
[3]Assistant Professor, Department of Swasthavritta & Yoga, MAM's Sumatibhai Shah Ayurved Mahavidyalaya, Hadapsar, Pune, M.S.

Article Information
Received: 04-10-2025
Revised: 17-10-2025
Accepted: 26-11-2025
Published: 27-12-2025

Keywords
Urticaria, Shitpatta-Udarda, Udard, Hives and traditional medicine, Skin rash.

ABSTRACT
This case study presents a successful Ayurvedic management of urticaria in a pediatric patient. The patient, a 4-year-old female, presented with a range of symptoms including widespread rashes, raised bumps, itching, and periorbital edema. Upon examination, the rash was characterized by redness, elevated borders, and a wheal-like appearance, accompanied by periorbital edema, non-pitting edema, irritability, fever, reduced oral intake, and decreased activity. The patient was diagnosed with food-induced urticaria, which aligns with the Ayurvedic concept of Shitapitta-Udarda. A tailored treatment regimen was administered, consisting of internal and local applications of ayurvedic formulations Ushnajal, Shunthi Churna, Shudha Gairik, Amsul, Syp. Nirocil, Cap.Urtiplex and Lotion Urtiplex. This regimen was designed to address the underlying pathology of the disease and alleviate the acute symptoms. The treatment yielded significant improvements, marked by a shorter disappearance time of wheals and prolonged intervals between new eruptions. Notably, the rashes completely resolved on the fourth day of treatment. This case study underscores the effectiveness of Ayurvedic management in treating acute urticaria, demonstrating rapid and sustained improvement through a targeted treatment approach.

INTRODUCTION:

Urticaria is a frequently encountered dermatologic disorder mediated by hypersensitivity reactions and is characterized by the abrupt onset of pruritic, erythematous, and edematous wheals. These lesions arise from increased vascular permeability in the superficial dermis secondary to mast cell and basophil activation, leading to the release of histamine and other inflammatory mediators, including leukotrienes, prostaglandins, and cytokines. In addition to cutaneous involvement, urticaria may affect mucous membranes. When inflammation extends into the deeper dermal or subcutaneous layers, it manifests as angioedema, most commonly involving the eyelids, lips, and extremities.

Based on disease duration, urticaria is classified into acute and chronic forms. Acute urticaria, defined as symptoms persisting for less than six weeks, represents the most common form in pediatric patients. It is particularly prevalent among children aged 1–5 years, with a reported prevalence of 56.92%.(1) In this population, acute urticaria is often associated with infectious etiologies, particularly viral upper respiratory tract infections. Other recognized triggers include food allergens such as milk, eggs, nuts, and seafood; medications, notably antibiotics and non-steroidal anti-inflammatory drugs; insect bites; and environmental exposures. However, in a substantial number of cases, no identifiable cause is found, and the condition is classified as idiopathic.

Clinically, urticarial lesions present as well-

Journal of Molecular Science
Journal of Molecular Science
Volume 35 Issue 3, Year of Publication 2025, Page 1168-1174
DoI-10.004687/1000-9035.2025.157

circumscribed, erythematous wheals with raised margins and central pallor. These lesions are typically transient, resolving within 24 hours without residual scarring or pigmentation, although successive crops of wheals may occur. Pruritus is often severe and can significantly impair quality of life, particularly in pediatric patients, leading to irritability, sleep disruption, and behavioral disturbances. Angioedema may occur concomitantly and is characterized by deeper, non-pitting swelling that is more commonly associated with pain or discomfort than itching.

Disease activity and severity are commonly assessed using validated scoring systems such as the Urticaria Activity Scale (UAS) and the Urticaria Severity Scale (USS). These instruments evaluate parameters including the number of wheals, intensity of pruritus, symptom duration, and the presence of associated systemic features, thereby providing an objective framework for monitoring disease progression and therapeutic response in both clinical and research settings.

In this case, a 4-year-old female patient was referred from a general practitioner with a three-day history of acute urticaria. The initial presentation was characterized by diffuse erythematous rashes, raised wheals, intense pruritus, and periorbital edema. Prior treatment consisted of systemic corticosteroids, including dexamethasone and prednisolone, along with the antihistamine chlorphenamine.

Physical examination revealed widespread urticarial lesions exhibiting erythema, elevated borders, and wheal-like morphology. Approximately 45–50 lesions were observed, involving the face, chest, abdomen, hands, buttocks, legs, as well as the palms and soles, indicating extensive cutaneous involvement consistent with moderate to severe acute disease. The presence of periorbital edema and generalized non-pitting edema was indicative of associated angioedema. The patient was irritable and febrile, suggesting a possible systemic inflammatory response or underlying infectious trigger. Notably, there was no evidence of significant weight loss, and appetite remained normal, indicating preserved overall nutritional and systemic status.

Overall, the clinical findings were consistent with acute urticaria in early childhood, with features suggestive of moderate-to-severe disease activity. Early diagnosis, identification of potential triggers, and timely initiation of appropriate therapy are essential to achieve symptom control, prevent complications, and reduce the risk of recurrence.

CASE PRESENTATION:
Patient Profile: Name: XYZ
Age: 4 years 5 months
Gender: Female
Place: SGAK Hadapsar, Pune (originally from Hyderabad)
Chief Concern: The patient's condition severely impacted daily activities, prompting concern from the family.
Medical History: No significant medical or birth history. Incomplete vaccination schedule (only BCG and OPV)
Prior Treatment: Treated with antihistamines and steroids for 2 days before presenting
Clinical Examination:
Red rash with elevated borders and wheal-like appearance (approximately 45-50 lesions), Lesions were located on face, chest, abdomen, hands, buttocks, legs, palms, and soles along with Pruritis, periorbital edema, and non-pitting edema throughout the body
Personal History:
- Recent travel to Solapur, Maharashtra
- Consumption of chicken, dalcha, and sitafal rabadi a night before onset of symptons.
- Episode of vomiting, followed by pain and itching on palms and soles.
Symptom Progression:
Day 1: Vomiting, pain, and itching
Day 2: Fever and rash onset (UAS-6, TSS-13)
Treatment: Treated with IV steroids and 2nd-generation antihistamines
Outcome: Significant reduction in urticaria severity within 2 days, then spontaneously eruption of new wheals.

Fig.1 Showing rash distribution

Journal of Molecular Science
Volume 35 Issue 3, Year of Publication 2025, Page 1168-1174
DoI-10.004687/1000-9035.2025.157

On the fourth day of illness, the patient was hospitalized at our facility (UAS-6, TSS-18). Initial treatment consisted of intravenous steroids and second-generation antihistamines, which led to a decrease in urticaria severity.

However, on the fifth day, approximately 12 hours later, the patient's condition worsened, with over 30 new wheals and intensified itching.

In response, we initiated Ayurvedic management on the sixth day, incorporating Ushnajal, Shunthi Churna, Shudha Gairik, Amsul, Syp. Nirocil, and Urtiplex for oral and local administration. This intervention yielded significant improvements, with urticaria severity decreasing substantially within three days, resulting in few to no wheals.

Table 1: Urtacarial Activity Score[2]

Score	Wheal	Pruritus
0	None	None
1	Mild(<20 wheals/24hour)	Mild (present but not annoying or troublesome)
2	Moderate (20-50 wheals /24 hour)	Troublesome but does not interfere with sleep
3	Intense (>50 wheals/24 hour or large confluent areas of wheal)	Severe pruritus, which is sufficiently troublesome to interfere with normal daily activity or sleep

Urticaria activity score for 7 days; total (minimum 0-maximum 42)
5-6 may be evaluated as well controlled, 7-15 as mild, 16-27 moderate and 28-42 severe urticaria

Table 2: Urtacarial Severity Score[2]

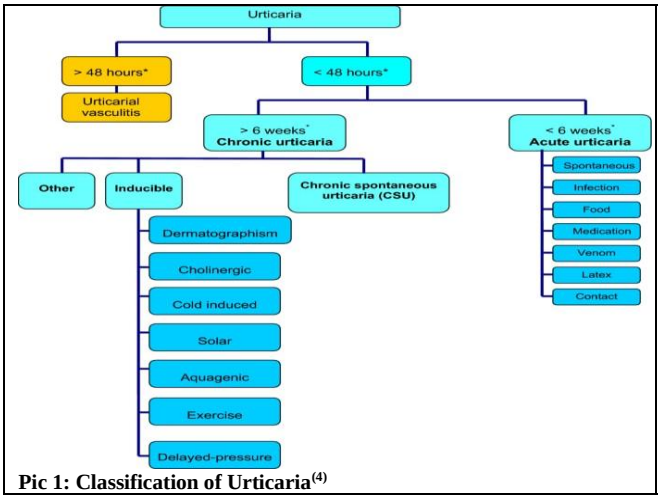
Parameter	Score			
	0	1	2	3
Number of wheals	None	<10	11-50	>50
Size of wheals	None	<1cm	1-3cm	>3cm
Intensity of pruritus	None	Mild	Moderate	Severe
Duration of persistence	None	<1hour	1-12 hours	>12 hours
Frequency of appearance	None	<once or Once a week	2-3 times/week	Daily almost daily
Frequency of antihistaminic use	None	<once or Once a week	2-3 times/week	Daily almost daily

Clear (TSS=0), Mild (TSS= 1-6), Moderate (TSS = 7-12), Severe (TSS= 13-18)
Diagnostic Findings

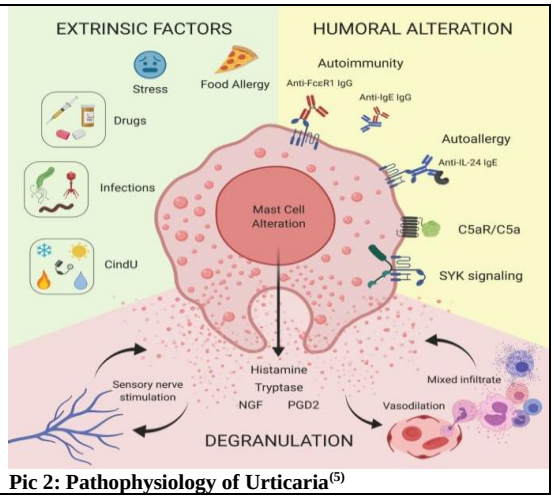
The diagnosis was confirmed through clinical examination and supported by laboratory results, which showed a cell count of 9,890, an absolute eosinophil count of 196, elevated CRP levels at 368, and normal ESR levels at 12. Urine tests revealed trace amounts of albumin but no proteinuria, with only a few epithelial cells present, indicating normal kidney function and no significant renal damage.

Pathophysiological Mechanism:

When mast cells are activated, they release histamine, leading to increased vascular permeability and smooth muscle contraction. Histamine then binds to H1 receptors, causing vasodilation, increased blood flow, and swelling. This results in the accumulation of fluid and proteins in the surrounding tissue, exacerbating the inflammatory response and leading to characteristic symptoms of urticaria, such as itchy, raised welts and swelling (Kumar et al., 2018).[3]



Pic 1: Classification of Urticaria[4]



Pic 2: Pathophysiology of Urticaria[5]

Journal of Molecular Science
Journal of Molecular Science
Volume 35 Issue 3, Year of Publication 2025, Page 1168-1174
DoI-10.004687/1000-9035.2025.157

Table No.3 Ashtavidh Pariksha

Nadi	Hansgati, PR- 68/min
Mala	Niram (Not passes at morning since 2yr but passes at evening on daily basis)
Mutra	Samyak Pravartan, No Bed wetting.
Jivha	Niram, Red
Shabda	Samyak
Sparsha	Ushna, Mrudu
Druk	Lalima, Utsed
Akruti	Unnat, Mandal

AYURVEDIC NIDANPANCHAK:

Hetu: In this case etiological factor was virudha-ahar(Consumption of chicken & sitafal rabadi)

Purvaroop: Initially, there was thirst, loss of taste, and heaviness in the body and limbs.

Roop: Lalima, Utsed, Unnat, Mandalakar utapatti sampurna Sharir.

SAMPRAPTI: When the disease manifests, there is swelling, severe itching, burning sensation, fever, and nausea. This condition is known as Shitapitta (a type of skin disease). When Vata is predominant, it is called Shitapitta, and when Kapha is predominant, it is called Udard (a type of urticaria). This Kapha-dominated disease is characterized by intense itching, redness, and wheals, and is known as Shishira (a type of Urticaria).[6]

Table No. 4 Nidanpanchak & Diffrential Diagnosis

	Shitpitta	Udarda	Shrish	Koth
Defination	skin condition characterized by small, pinpoint-sized eruptions.	A skin condition characterized by large, raised, and circular eruptions.	A type of Urticaria caused by exposure to cold temperatures or cold objects.	skin condition characterized by small, itchy, and circular eruptions.
Cause	Pitta dosha	Kapha and Pitta doshas	Vata and Kapha doshas	Vata and Kapha doshas
Triging factor	Heat, spicy foods, and emotional stress.	Foods Fatty/oily, cold/damp environments, and lack of physical activity.	Cold exposure, dry/windy environments, and stress/anxiety.	Dry skin, harsh soaps/cleansers, and nutritional deficiencies.
Symotoms	Small eruptions, itching, burning, heat sensation, redness.	Large eruptions, itching, burning, heat sensation, redness.	Hives or wheals, itching, burning, cold sensation, numbness.	Small eruptions, itching, dryness, scaling.
Location	Typically affects the face, neck, and chest.	Typically affects the face, neck, and trunk.	Can affect any part of the body.	Typically affects the arms, legs, and trunk.

Diagnostic and Therapeutic Challenges:

The complex interplay of Tridoshas (Vata, Pitta, and Kapha) posed significant diagnostic challenges. The presence of Sama Pitta, arising from Aama and Kleda, complicated the disease's pathophysiology. Kapha dominance and Vata's role in spreading Kapha-avrit Sama Pitta further hindered diagnosis. The patient's socioeconomic status and unfamiliarity with the city presented time constraints for treatment management. Considering the patient's age (4 years and 5 months), traditional Ayurvedic treatments like Vaman/Shodhan were not feasible. Shamanam Chikitsa became our primary treatment approach. The prognosis was uncertain, as existing research suggests that acute urticaria can progress to chronic urticaria, potentially lasting up to six months.

Treatment Approach:

We administered Ayurvedic Shaman Chikitsa alongside supportive allopathy treatment. The treatment regimen consisted of:

Table No. 5 Treatment Schedule

Drug	Dose	*Sevankal*	Anupan	Interval	Route
Ushna Jal		*Muhurmuhur*	-	-	PO
Shunti Churna	500mg	*Antarabhakt*	Koshna-Jal	Twice a day	PO
Shudha Gairik	500mg	*Antarabhakt*	Koshna-Jal	Twice a day	PO
Amsul (Vrukshamla)		*Abhakta*	-	Thrice a day	PO
Syp. Nirocil	7.5 ml	*Abhakta*	-	Twice a day	PO
Cap. Urtiplex	½ Cap	*Antarabhakt*	Madhu (Honey)	Twice a day	PO
Urtiplex Lotion		-	-	Thrice a day	Local
Fexofenadine	2.5ml	After meal	-	Thrice a day	
Baking soda		-	-	Thrice a day	Local

Journal of Molecular Science
Journal of Molecular Science
Volume 35 Issue 3, Year of Publication 2025, Page 1168-1174
DoI-10.004687/1000-9035.2025.157

Differential Diagnosis:

A comprehensive differential diagnosis was considered, encompassing various dermatological conditions that present with similar pruritic and skin manifestations, including:

- Contact dermatitis[7]
- Atopic dermatitis (eczema)[8]
- Insect bites[9]
- Maculopapular drug eruptions[10]
- Erythema multiforme[11]
- Urticarial vasculitis[12]
- Pityriasis rosea[13]

In Ayurveda, Shitapitta-Udarda's differential diagnosis involves several conditions:

Table No. 6 Ayurvedic differential diagnosis

Disease	Dosh dushti	Clinical feature	Symptoms
Udarda	Kapha and pitta	Facial and bodily papules, pustules, and comedones	Itching, redness, and inflammation
Shitpitta	Kapha and pitta	Facial and bodily papules, pustules, and comedones	Itching, redness, and inflammation
Visarpa[14]	Kapha and pitta	Painful, fluid-filled blisters on the skin	Itching, burning, and inflammation.
Dadru[15]	Kapha and pitta	Itching, redness, and inflammation on the skin	Itching, burning, and inflammation.
Pama[16]	Kapha and vata	Dry, scaly, and itchy skin lesions	Itching, dryness, and inflammation.
Mukhadushik[17] (facial eruptions)	Pitta	Facial eruptions, redness, and itching	Burning sensations, redness, and inflammation.
Kotha[18]	Kapha	Circular, itchy skin lesions	Itching, redness, and inflammation

Each of these conditions necessitates a unique treatment approach in Ayurveda, tailored to the underlying dosha imbalance and symptoms.

DISCUSSION:

The term "urticaria" was first coined in 1769 by William Cullen in his book Synopsia Nosalogiae Methodica.[19] However, Ayurvedic texts had previously described a similar condition, known as Shitpitt-Udarda-Kotha. These ancient texts outlined the etiology, pathogenesis, and management of the condition, including its treatment (Chikitsasutra).

Ayurvedic treatment is centered around identifying and addressing the underlying causes of a disease. By doing so, it aims to disrupt the disease's progression and minimize the risk of recurrence. This core principle was instrumental in shaping our treatment strategy for the present case. We turned to classical Ayurvedic texts, renowned for their wisdom on diagnosis, treatment, and management of various health conditions, including those affecting children. These texts provided valuable guidance on devising a comprehensive treatment plan tailored to the patient's unique requirements. The quality of Ayurvedic medications played a vital role in achieving successful outcomes. When prepared and administered correctly, these medications can effectively restore balance to the body and promote overall well-being. However, their efficacy and safety are heavily dependent on their quality, highlighting the importance of sourcing authentic products.

Given the patient's tender age of 4 years and 5 months, we faced a unique challenge. Traditional Ayurvedic treatments, such as Vaman/Shodhan, were not suitable due to the child's limited physical and mental resilience. These intense purification procedures require a certain level of vitality, which may not be present in young children. In light of this, we adopted the Shaman Chikitsa approach, a gentle and nurturing treatment strategy focused on alleviating symptoms and restoring balance to the body, utilizing the following medications:

1. Ushnajal: Alleviated Aam-Pachan (indigestion).
2. Shunthi(*Zingiber Officinale*) [20] : Reduced Kapha and alleviated symptoms Kapha Chedan and Pitta Vimargaman due to its Katu and Ushna Rasa, and Laghu Guna.
3. Amsul/Vrukshamla (*Gracinia Indica*) [21]: Reduced Pitta with its Amla and Madhur Rasa. It has Yakrutejak, Vatanuloman properties.
4. Shudha Gairik(*Red Ochre*) [22]: Reduced Kapha and Pitta with its Katu and Tikta Rasa, and Laghu and Sukshma Guna.
5. Syp.Nirocil (Tamlaki, Erand, Guduchi, Yashad Bhashma)

a) Tamlaki/Bhumamlaki (*Phyllanthus Niruri*) [23]: Raktapittahar & Raktashodak, it Reduced Pitta with its Kashay, Tikta, and Madhur Rasa, and Shit Virya.

b) Erand(*Ricinus Communis*) [24]: Reduced Vata with its Madhur Rasa, Guru Guna, and Ushna Virya, and alleviated Kapha symptoms leading to Ampachan.

c) Guduchi(*Tinospora Cordifolia*) [25]: Reduced Pitta and Kapha with its Katu, Tikta, and Kashay Rasa and alleviating symptoms of Rasagat Dosha as it has Raktaprasadan and Klednashna properties.

d) Yashad(*Zinc Calx*) [26] : Reduced Kapha and Pitta with its Tikta and Kashay Rasa, and Shit Virya and has Sarvadahanashan properties.

6. Cap. Urtiplex (containing Manjishtha, Khadir, Katuki, Daruharidra, and Sariva)

a) Manjishtha(*Rubia Cordifolia*) [27] : Reduced Kapha and Pitta with its Kashay and Tikta Rasa, Ruksha Guna, and Ushna Virya. It has

Journal of Molecular Science
Journal of Molecular Science
Volume 35 Issue 3, Year of Publication 2025, Page 1168-1174
DoI-10.004687/1000-9035.2025.157

Raktaprasadan, Vishaghna & Kushthaghna properties.
b) Khadir(*Acacia Catechu*) [28] Effective in Kled Soshan and Rakta Prasadan with its Tikta and Kashay Rasa.
c) Katuki(*Berberis Aristata*) [29] Reduced Kapha with its Tikta Rasa and Ruksha and Laghu Guna & Kled Soshan properties, it also has Yakrututejak properties.
d) Daruharidra(*Berberis Aristata*) [30] Reduced Pitta and Kapha with its Tikta and Kashay Rasa, and Ushna and Katu-vipak, It is Raktashodhak in nature.
e) Sariva(*Hemidesmus Indicus*) [31] Reduced Vata and Pitta with its Madhur Rasa, Snigdha and Guru Guna, and Madhur and Tikta Shit Virya.
7. Urtiplex ointment (containing Aloe barbadensis, Garcinia indica, Yashad Bhasma, and other ingredients) Used locally

Table No. 7 Effects and Actions of Dravyas

Sr. No.	Content		*Doshghanata* (Effect on Doshas)	*Vishesh Karya*
1	*Ushnajal*			*Aampachan*
2	*Shunthi Churna*		*Kaphaghna*	*Kapha Chedan & Pitta Vimargaman*
3	*Shudha Gairik*		*Kaphaghna, Pittaghana*	
4	*Amsul(Vrukshamla)*		*Pittghana*	*Yakrutejak, Vatanuloman*
5	*Syp.Nirocil*			
		Tamlaki(Bhumamlaki)	*Pittaghana*	*Raktashodhak, Raktapittahar*
		Erand	*Vatghana, Kaphaghna*	*Vatanuloman, Ampachan*
		Guduchi	*Pittaghna, Kapahaghna, Vatagna*	*Rasagat Dosha & KledNasha, Rakta prasadan*
		Yashad Bhashma	*Kaphpittaghna*	*Sarvadahanash*
6	*Cap. Urtiplex*			
		Manjishtha	*Kaphaghna, Pittghana, Vatghana*	*Raktaprasadan, Vishaghna & Kushthaghna*
		Khadir	*Kaphaghna, Pittashaman*	*Raktagat kled- Soshan, RaktaPrasadan*
		Katuki	*Kaphaghana, Pittghana*	*Rasaraktagat Pittashodhan, Yakrututejak, Kled-Soshan*
		Daruharidra	*Pittaghana, Kaphaghna*	*Kledaghana, Raktashodhak*
		Sariva	*Vatshaman, Pittashaman*	*Raktagat-Pittashaman*
7	*Urtiplex ointment*			
	Aloe barbadensis		*Pittaghana*	*Kaphapitta-Shodhan Dushtakapha-Pachan,Vilayan*
	Garcinia indica, Yashad Bhasma, Kokam(Amsul), and other ingredients)		Mentioned Earlier in Table	

Outcome:
There was significant improvement in symptoms within three days. Complete resolution of rashes on the fourth day. The treatment yielded significant improvements, marked by a shorter disappearance time of wheals and prolonged intervals between new eruptions from 12 hours to 6 hours to 2 hours to none

Even after follow-up at 7 days, 15 days and 1 month were taken there were no evidence of any urticarial rash or related complaints.

Fig 2: After treatment images of the patient

CONCLUSION:
This case demonstrates the effectiveness of Ayurvedic management in treating acute urticaria. The treatment regimen, comprising Ushnajal, Shunthi Churna, Shudha Gairik, Amsul, Syp.Nirocil, Cap. Urtiplex, and Urtiplex ointment,

Journal of Molecular Science
Volume 35 Issue 3, Year of Publication 2025, Page 1168-1174
DoI-10.004687/1000-9035.2025.157

successfully broke the disease's pathology, yielding faster-than-expected results.

A key take away from this case is that Ayurveda offers a comprehensive approach to disease management, often providing more effective and lasting relief than symptomatic treatments alone. In contrast, allopathic medicine may only offer temporary symptomatic relief in cases of acute urticaria.

From the patient's perspective, this integrated approach to healthcare highlights the benefits of combining Ayurvedic and allopathic treatments for optimal outcomes.

Our finding is similar to other ayurvedic trials by using internal medications, effectively managing chronic urticaria in a patient unresponsive to conventional treatment, improving both disease activity and quality of life. Evidence suggests such interventions may provide lasting relief and reduce recurrence by correcting underlying systemic imbalances rather than merely suppressing symptoms.[32]

CONSENT:
We obtained informed, written consent from the patient's parents/guardians prior to initiating treatment, ensuring their understanding and agreement with the proposed management plan.

REFRENCE:

1. Kannu Priya, Anupama Vinayak Mauskar.Acute Urticaria in Children in a Tertiary Care Hospital: A Cross-sectional Study. Journal of Clinical and Diagnostic Research, Year : 2021, Month : Jun, Volume : 15, Issue : 06,Page : SC05 - SC08
2. https://www.jcdr.net/ReadXMLFile.aspx?id=15026
3. Chandarana VT, Bhuptani NV, Patel BK, Raghavon UN. A Study of Autologous Serum Skin Test and Autologous Serum Therapy in Chronic Urticaria. Indian J Dermatol Res. 2022;2(1): 103.
4. Kumar V, Clark M, eds. Kumar & Clark's Clinical Medicine. 9th ed. Philadelphia, PA: Elsevier; 2018.
5. Kanani, Amin & Schellenberg, Robert & Warrington, Richard. (2011). Urticaria and angioedema. Allergy, asthma, and clinical immunology : official journal of the Canadian Society of Allergy and Clinical Immunology. 7 Suppl 1. S9. 10.1186/1710-1492-7-S1-S9.
6. Folci, M., Ramponi, G., Brunetta, E. (2020). A Comprehensive Approach to Urticaria: From Clinical Presentation to Modern Biological Treatments Through Pathogenesis. In: Turksen, K. (eds) Cell Biology and Translational Medicine, Volume 12. Advances in Experimental Medicine and Biology, vol 1326. Springer, Cham.
7. Madhavakara. Madan Nidan. Chapter: Shitala (शीतपित्त), Verses: 1-5, In: Dash VB, editor. Madan Nidan. Varanasi: Chaukhamba Sanskrit Sansthan; 2010.
8. Tilles, G., & Blanc, D. (2017). Contact dermatitis: A review. Journal of Clinical and Aesthetic Dermatology, 10(10), 14–16.
9. Leung, D. Y., & Bieber, T. (2018). Atopic dermatitis. The Lancet, 392(10147), 509–522.
10. Stoecker, W. V. (2017). Insect bites. Journal of Clinical and Aesthetic Dermatology, 10(7), 14–16.
11. Roujeau, J. C. (2018). Maculopapular drug eruptions. Journal of Investigative Dermatology, 138(1), e123–e128.
12. Sokumbi, O., & Wetter, D. A. (2017). Erythema multiforme. Journal of Clinical and Aesthetic Dermatology, 10(10), 10–12.
13. Chen, Y. J., & Wu, C. Y. (2018). Urticarial vasculitis. Journal of Investigative Dermatology, 138(1), e129–e135.
14. Chuh, A. A., & Zawar, V. (2017). Pityriasis rosea. Journal of Clinical and Aesthetic Dermatology, 10(7), 10–12.
15. Sharma PV. Charak samhita Chaukhambha Orientalia, Varanasi, Chikitsasthana, Chapter 7, Verse 11-15(p. 264-265)
16. Sharma PV. Charak samhita Chaukhambha Orientalia, Varanasi, Chikitsasthana, Chapter 7, Verse 16-18(p. 266-267)
17. Sharma PV. Charak samhita Chaukhambha Orientalia, Varanasi, Chikitsasthana, Chapter 7, Verse 20-22(p. 270-271)
18. Sharma PV. Charak samhita Chaukhambha Orientalia, Varanasi, Chikitsasthana, Chapter 7, Verse 24-26(p. 274-275)
19. Sharma PV. Charak samhita Chaukhambha Orientalia, Varanasi, Chikitsasthana, Chapter 7, Verse 28-30(p. 278-279)
20. Maurer M, Pereira MP, Kolkhir P. The Definition, Classification, and History of Urticaria. Immunol Allergy Clin North Am. 2024 Aug;44(3):407-419. doi: 10.1016/j.iac.2024.03.001. Epub 2024 May 18. PMID: 38937006.
21. Chunekar KC, Bhavprakash Nighantu Chaukhambha Bharti Acdemy, Varanasi, Haritakyadi varga Verse 44(p. 12)
22. Yadavji T, Dattatreya Anant Kulkarni. Rasaratnasammuchaya. Khemraj Shrikrishnadas publication Mumbai; 1909. (Chapter 3, Verse 46).p. 104.
23. Khemraj Krishnadas. Bhavaprakasha Nighantu. Khemraj Shrikrishnadas; Mumbai 1909. 8th ed. Phala Varga. Verse 145-147(p. 112).
24. Khemraj Krishnadas. Bhavaprakasha Nighantu. Khemraj Shrikrishnadas; Mumbai 1909. 8th ed. Guduchyadi Varga. Verse 247-250(p. 82).
25. Khemraj Krishnadas. Bhavaprakasha Nighantu. Khemraj Shrikrishnadas; Mumbai 1909. 8th ed. Guduchyadi Varga. Verse 60-66(p. 56-57).
26. Khemraj Krishnadas. Bhavaprakasha Nighantu. Khemraj Shrikrishnadas; Mumbai 1909. 8th ed. Guduchyadi Varga. Verse 6-9.(p. 50).
27. Kashinath Sashatri Rasatarangini Chaukhambha Sanskrit series office, Varanasi, 11th Edition Chapter 19, Verse 95-115 (p. 274)
28. Chunekar KC, Bhavprakash Nighantu Chaukhambha Bharti Acdemy, Varanasi, 1st Edition Haritakyadi varga Verse 188-191(p.106)
29. Chunekar KC, Bhavprakash Nighantu Chaukhambha Bharti Acdemy, Varanasi, 1st Edition Vatadi varga Verse 30-33(p. 513)
30. Chunekar KC, Bhavprakash Nighantu Chaukhambha Bharti Acdemy, Varanasi, 1st Edition Haritakyadi varga Verse 151-152(p. 67)
31. Chunekar KC, Bhavprakash Nighantu Chaukhambha Bharti Acdemy, Varanasi, 1st Edition Haritakyadi varga Verse 201(p. 114)
32. Chunekar KC, Bhavprakash Nighantu Chaukhambha Bharti Acdemy, Varanasi, 1st Edition Guduchyadi varga Verse 238(p. 411)
33. S KR, Panda AK, P B, Kar BR, S I. Ayurveda panchakarma treatment success in a case of chronic spontaneous urticaria non-responding to conventional medicine-A case study. J Ayurveda Integr Med. 2022 Apr-Jun;13(2):100549. doi: 10.1016/j.jaim.2022.100549. Epub 2022 Mar 4. PMID: 35255270; PMCID: PMC8904594.