Case Study

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HOLISTIC APPROACH TO MACULAR AMYLOIDOSIS THROUGH AYURVEDA: A CASE STUDY

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ABSTRACT

Macular amyloidosis is a chronic skin infection and it is quite prevalent in modern lifestyle. Many people have localised skin infection which doesn't go off with common intervention. Deposition of protein underneath the skin which is basically amyloid protein is a major cause of these pathology. A 53 years old male presented with grey-brown discolouration associated with itching in inter-scapular region from last one year with no relevant family history and was diagnosed as Macular Amyloidosis. The sign and symptoms of the Macular Amyloidosis clinically can be correlated with Kshudra Roga Nilika, having Vata and Pitta as predominant Dosha. Treatment protocol with Shamana Ausadhis like Vasagduchyadi Kasaya, Guduchyadi taila, Arogyavardhini vati along with Pathya and Apathya was instructed. There was significant improvement in both sign and symptoms of the disease, so this treatment protocol can be taken into further consideration for the management of Macular Amyloidosis.

Keywords: Macular Amyloidosis, Nilika, Vasagduchyadi Kasaya, Guduchyadi taila, Shamana chikitsa

INTRODUCTION

The term 'Amyloidosis' is a group of protein misfolding disorders characterized by the extracellular deposition of insoluble polymeric protein fibrils in tissues and organs. Macular Amyloidosis is a rare chronic form of cutaneous amyloidosis, characterized by the accumulation of amyloid deposits in the dermis with clinical manifestations like pruritic hyperkeratotic grey-brown macules that give a rippled or reticulated pattern of pigmentation usually in the inter-scapular region and extensor sites of arms, forearms and legs [1]. It is more common in women with a dark complexion [2]. Prevalence of 'Macular Amyloidosis' is 35% of cutaneous amyloidosis cases globally found per year. The specific distributions over the skin and its clinical manifestation have quite resembles with "Nilika" which is mentioned by acharya Madhav in 'Kshudra Roga Nidan' Aadhaya. Acharya Vijay Rakshit on his commentary on Madhav Nidan 'Madhukosh Vyakhya' and Vaidya Vachaspati on his commentary 'Atyankadarpana' vividly described about Nilika Kshudra Roga with their specific distributions.[3]

"Krishnam Eva Abaguda Gunam Gatre Ba Nilika Bidu" II
Madhav Nidan – Kshudra Roga Nidan -55/40[4]

Pathology
Mild epidermal hyperkeratosis; collections of amyloid "corpuscles" within papillary dermis; melanin containing histiocytes encircle the deposits.[5]

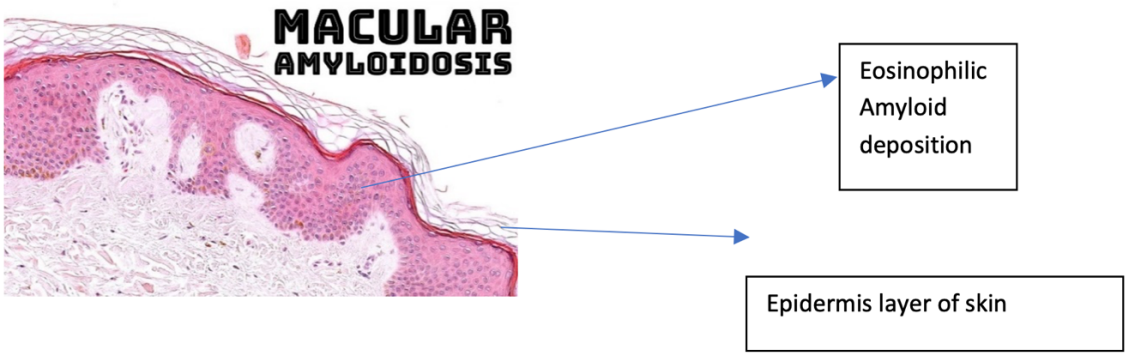

Figure 1: Macular Amyloidosis pathology (Image courtesy: https://youtu.be/Nr6IocpzC6Q)

Figure 2: Samprapti (Pathogenesis) of Nilika

Ayurvedic Samprapti

Acharya Vijay Rakshit explained samprapti of Nilika on his commentary "Madhukosh Teeka" on Madhav Nidan in the Kshudra Roga Nidan aadhaya on 40th no sloke.

Case Report

A 53 years old male, Hindu, resident of Uttar Diarak, South 24 Parganas, West Bengal, coming from low socio-economic conditions complaining of grey-blackish discolorations associated with mild itching over the inter-scapular region from past one year. OPD no– AYUR/ RG24000xxxxx.

Table 1: Personal History

Past Medical History	Took antihistaminic drugs with topical application of steroidal ointment for last 6 months.
Past Surgical History	No Such
Family History	No Such
Habitat	Rural
Progress	Gradual
Severity	Moderate
Addiction	No Such
Occupation	Labour
Sleep	Disturbed

Clinical Findings

Table 2: Integumentary Examination

Nature of Eruption	Macular, Grey-blackish, non scaly lesion over the back.
Distribution	Asymmetrical
Surface	Smooth. No discharge from the lesion and no any bump over skin.
Site of eruption	Inter scapular region
Margin	Regular

Table 3: General Examination

Mental Status	Alert, conscious and cooperative
Weight	72 kg
Height	5'6''
Facies	Anxious
Clubbing	Absent
Pallor	Absent
Jaundice	Absent
Cyanosis	Absent
Oedema	Absent
Built	Moderate

Table 4: Vital Parameters

Pulse	72 beats per minute
Blood Pressure	128/86 mm of Hg
Respiratory Rate	16 Breathes / min
Temperature	97.2 degree Fahrenheit

Table 5: Ashtavidha Pariksha

Nadi	Vata - Pittaja
Mala	Baddha
Mutra	Pita Varna, 5-6 times / day
Jihva	Nirama
Sabda	Sphashta
Sparsha	Slakshna
Drik	Prakrit
Akriti	Madhyam

Subjective Parameter

Scoring scale was used and assessed on the basis of signs and symptoms:

- Vaivarnyata - Brownish-Blackish discolouration
- Kandu-Pruritus

Diagnosis And Treatment Plan: After clinical evaluation we diagnosed this disease as Nilika Kshudra Roga and treatment plan was followed accordingly. After prior consent of the patient, he

was treated with Shamana Ausadhis at the OPD of I.P.G.A.E&R at SVSP from 11/07/2024 to 12/09/2024.

Objectives: Develop reliable diagnostic criteria and tools to differentiate macular amyloidosis (Nilika Kshudra Roga) from other skin conditions, enabling earlier and more accurate diagnosis. Alleviating the cardinal sign and symptoms of the disease, and also to get relieve from the psychological distress as skin disorders are considered to be a social stigma.

Therapeutic Intervention

Chikitsa Sutra

1. Nidan Parivarjana
2. Dosa Shamana
3. Pathya and Apathya

Shamana Chikitsa

Treated at Kayachikitsa outdoor patient department of I.P.G.A.E&R at SVSP for a duration of 2 months. Marked improvement was observed after treatment.

- 1st Visit-11/07/2024
- 2nd Visit- 08/08/2024
- 3rd Visit – 12/09/2024
- Total Duration – 2 Months

Shamana Ausadhis: Drug, Dose and Anupana: On the basis of dosic predominance it is a Vata-Pittaja disorder, so all the selected drugs were Vata – Pitta samak and Rakta dosa prasamana.

Table 6: Administered Shamana Ausadhis

Shamana Ausadhis	Dose with Anupana
1.Vasaguduchyadi Kasaya	15 ml twice a day before food with 30 ml of lukewarm water.
2.Vaishvanara Churna 2gm + Sankha Bhasma 125mg + Yasthimadhu Churna 2 gm	Churna yoga of these powders twice a day after food with lukewarm water.
3.Gandhak Rasayana	250 mg twice a day 1 hour after food with normal water
4.Aragyavardhani Vati	500 mg (2 tab) twice a day after food with Luke warm water
5.Guduchyadi Taila	Locally apply at back twice a day in a dose of 10ml.

RESULTS AND DISCUSSION

Progress during treatment

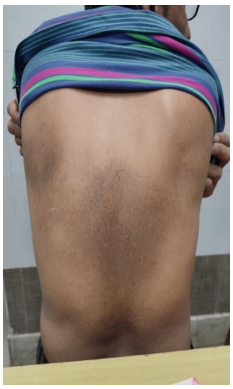

Figure 3 (a)
Before Treatment
11/07/2024

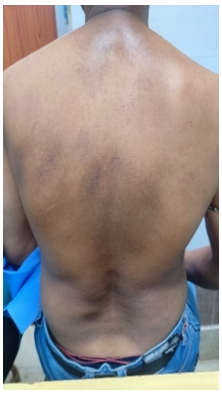

Figure 3 (b)
Mid Treatment
08/08/2024

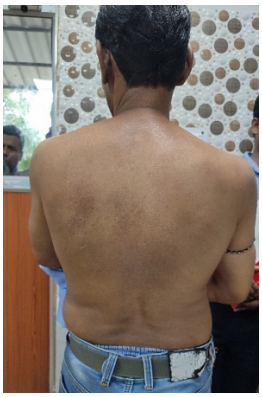

Figure 3 (c)
After Treatment
12/09/2024

Significant improvement was observed in subjective parameters like vaivarnya (discolouration) and kandu (pruritus) after 60 days of treatment.

Table 7: Changes in subjective parameters

Complain	On 1st Visit on 11/07/2024	On 2nd Visit on 08/08/2024	On 3rd Visit on 12/09/2024
Vaivarnyata (Discoloration)	++++	++	+
Kandu (Itching)	++	+	-

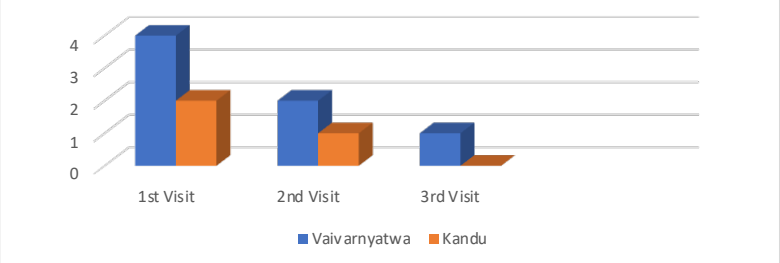

Figure 4: Graphical Presentation of Parameters on Consecutive Follow ups

DISCUSSION

Shamana Chikitsa in Macular Amyloidosis is found to be very much fruitful thus probable mechanism of drug action have been discussed. The chief ingredients of Vasagduchyadi Kasaya is Vasa[6] (*Adhatoda vasica)*, Guduchi[7] *(Tinosporia cordifolia),* Amalaki[8] (*Emblica officinalis)*, Haritaki[9] (*Terminalia chebula)*, Vibhitaki[10] (*Terminalia bellerica)*, Katuki[11] (*Pichrorhiza kurrora*), Bhunimba[12] (*Andrographis paniculata)* and Nimba[13] (*Azadirachta indica)*, all together they are potent hepatoprotective and hydrocholeretic in action. Most of the ingredients of Vasagduchyadi Kasaya are having 'Kasaya' rasa but Guduchi, Vasa and Nimba possesses both Tikta (bitter) and Kasaya (astringent) rasa, thus having Pitta and Rakta Samak properties. Katuki has bhedana (Piercing) and lekhana (Scraping) action. The Kasaya not only balances the vitiated 'Pitta' dosa but also simultaneously corrects the Bhrajak Pitta which plays a major role in giving complexion to the Skin. The given Churna was a combination of Vaishvanara Churna, Sankha Bhasma and Yasthimadhu Churna. The chief ingredients of Vaishvanara Churna are saindhav lavana (Himalayan rock salt), Yavani [14] (*Carum copticum*), Sunthi [15] (*Zingiber officinale*), Ajamoda [16] (*Apium graveolans)*, and Haritaki (*Terminalia chebula)*. Vaishvanara Churna [17] has potent carminative, digestive fire stimulant and laxative action. The micronutrients in Saindhav lavana (Himalayan rock salt) is found to play a significant role in healing skin conditions. Sankha Bhasma [18] contains Calcium carbonate which is potent antacid and Yasthimadhu[19] (*Glycyrrhiza glabra*) has potent anti-inflammatory, antioxidant, hepatoprotective activity. This Churna yoga formulation having Agni-Dipak (Digestive fire stimulant), Pachaka (Digestive), Ropaka (Healing) and Rasayana (Rejuvenating) properties which mainly acts on Dhatwagni level and induces Dhatwagni Paka which rectifies the action of Bhrajak pitta. The potent ingredient of Gandhak Rasayana [20] is gandhak which is elemental sulphur. It performs tissue remodeling by activation of fibroblast and by modulation of the proteins involved in the remodeling [21]. It rregulates the melanocyte cells. It has potent Kandughna, Kusthaghna, Visarpahara, Dipta-Anala and Pachaka properties, which makes it very much effective in Twak-vaivarnyata and Shuska Vicharchika diseases. Arogyavardhini vati [22] is an effective formulation mentioned in the context of Yakrit vikara and Kushta roga. It promotes Arogya (good health). It is said to be *Sarvarogahara* (cures all diseases) as it balances the Tridosa. Its main ingredients constitute Katuki (*Pichrorhiza kurrora*), Amalaki (*Emblica officinalis)*, Haritaki (*Terminalia chebula)*, Vibhitaki *(Terminalia bellerica)*, Nimba (*Azadirachta indica*), Eranda [23] (*Ricinus communis*), Guggulu [24] (*Commiphora mukul*), Silajatu (Mineral pitch), Suddha Parad (Purified mercury), Suddha Gandhak (Purified Sulphur), Lauha Bhasma (Calcined iron), Abhraka Bhasma (Calcined mica), Tamra Bhasma (Calcined copper). It has significant Kustha-nashak, Medo-dosa hara, Yakrit-vikara nashak, Jirna Jvara nashak and Ama visa nashak action. In general, it has anti-inflammatory, anti-septic and rejuvenating property. Guduchyadi Taila with its principal ingredients Guduchi (*Tinospora cordifolia)*, Tila taila (Sesame oil), Go-dugdha (Cow-milk), Ashwagandha [25] (*Withania somnifera*), Vidari Kanda [26] (*Pureria tuberosa*), Kakoli [27] (*Roscoea purpurea*) and Kshirakakoli [28] (*Lilium polyphyllum*). All of them have anti-inflammatory and anti-histaminic properties, thus play a major role in management of diseases like Kushta- Vicharchika - Gatra-kandu. Guduchyadi taila on its local application helps in the formation of lipoidal bonds, consequently aiding in the penetration of drug molecules. As a result, it increases the rate of transdermal drug delivery, improves local blood and lymphatic circulation thereby enhancing nearby tissue metabolism. It reduces inflammation by enhancing the secretion of numerous inflammatory mediators like histamine, etc. It relaxes local stiffness through the physical impact of warmth, thereby reducing pain.

CONCLUSION

The presented paper provided an opportunity for standardization of Ayurvedic assessments and treatment procedures which are therapeutically safe and effective. The followed treatment protocol is very safe and effective in the management of "Nilika Kshudra Roga". This approach may be taken into consideration for further research work in the management of Macular Amyloidosis.

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Declaration of Patient Consent: The authors certify that they have obtained all appropriate patient consent. He has given his consent for his images and other clinical information to be reported in the journal. The patient was assured that his initials will not be published and due efforts will be made to conceal his identity.

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