

AYURVEDIC MANAGEMENT OF ACANTHOSIS NIGRICANS: A CASE STUDY

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ABSTRACT

Acanthosis Nigricans is a dermatological condition often linked to metabolic disturbances such as insulin resistance and obesity. Conventional management provides symptomatic relief but often fails to address the root causes. This case study explores the efficacy of *Ayurvedic* treatment, particularly *Virechana Karma* (therapeutic purgation), in managing Acanthosis Nigricans. An 18-year-old obese male presented with hyperpigmented, thickened skin lesions on the neck, axillae, and Back, along with systemic complaints such as lethargy and poor digestion. The treatment regimen included *Deepana-Pachana*, *Snehapana* with *Panchatikta Ghrita*, *Sarvanga Abhyanga* and *Swedana*, followed by *Virechana* using *Triphala Kwatha* and *Eranda Sneha*. Post-therapy observations showed significant improvements in skin texture, pigmentation, digestive health, and overall well-being, with weight reduction from 80 kg to 68

kg. This case underscores the potential of *Ayurvedic* detoxification therapies in managing Acanthosis Nigricans holistically, emphasizing the need for further clinical validation through larger studies.

KEYWORDS: Acanthosis Nigricans, *Virechana*, *Panchatikta Ghrita*, *Panchakarma*, *Ayurveda*, *Triphala Kwatha*.

INTRODUCTION

Acanthosis Nigricans^[1] is a dermatological condition characterized by hyperpigmented, velvety thickening of the skin, predominantly in body folds such as the neck, axillae, and groin. It is commonly associated with insulin resistance, obesity, hormonal disorders, malignancies, and certain medications. While modern medicine often links Acanthosis Nigricans to metabolic disturbances, the Ayurvedic perspective offers a unique understanding rooted in the imbalance of Doshas and impaired Dhatu metabolism.

In Ayurveda Nilika has been described under the title of kshudra roga (minute illness); kshudra here is described according to hetu (etiology), lakshana (symptoms) and chikitsa (treatment). Known as kshudra, these are exemplifying abruptly throughout the classical texts. Vitiated vata as well as pitta do cause that disease Nilika. Both dosha are responsible for disease manifestation also are aggravated by psychological phenomenon. They stay in the gatra and mukhabhaga, which are the whole body and face. Classical texts of Ayurveda do mention a few limited signs and also symptoms characterizing this pathogenesis. They do include Krishna that is blackish discoloration and Nirujatanuka that is painless thin lesion in Gatra Mukha that is Body and face. Because the disorder is described within Kshudra roga, brief descriptions of nidana, lakshana, as well as treatment principles are available in Classics. According to Ayurveda, vitiated vata, pitta, and rakta become prime pathological factors for the reason that they can cause this disease. Rakta dhatu, a body tissue, gives color to the body. Raktadhatu's physiological change might misrepresent body's usual outline then help show body's varied changed color and make diverse symptoms.

From an *Ayurvedic* viewpoint, Acanthosis Nigricans can be correlated with *Nilika*^[2], primarily involving *Pitta dosha* vitiation along with *Rakta Dhatu dushti*.^[3] Impaired *Agni* (digestive fire), improper dietary habits, and sedentary lifestyle contribute to the pathogenesis of the condition, reflecting deeper systemic imbalances.

This case study presents the clinical management of Acanthosis Nigricans through an integrative Ayurvedic approach, highlighting the effectiveness of internal medications, external applications, and dietary modifications. The case also attempts to explore the *Ayurvedic* pathogenesis and treatment principles relevant to the condition.

CASE REPORT

An 18 years old Obese Male patient came to the Government Akhandananda Ayurveda

Hospital on 13th December 2023 complaining of Blackish discoloration of the skin, especially over the face, neck, axilla, chest and back region and also Increased Body Weight associated with foul smelling of Body odour, Laziness in day-to-day activities for the 4 years. Taken allopathy treatment for that but no relief so for further treatment patient arrived at Government Akhandanand Ayurved Hospital.

This single case study was conducted to evaluate the efficacy of Ayurvedic management, particularly Virechana Panchakarma therapy, in the treatment of Acanthosis Nigricans. The patient was assessed on the basis of clinical signs and symptoms, and treatment was planned according to classical Ayurvedic principles.

Table 1: GENERAL EXAMINATION.

| | |
|------------------|-----------------|
| Pallor | Absent |
| Icterus | Absent |
| Pulse | 74/min |
| Respiratory rate | 19/min |
| Weight | 80 kg |
| Oedema | Absent |
| Lymph nodes | Not Palpable |
| BP | 120/80 mm of Hg |

Table 2: HEMATOLOGICAL EXAMINATION.

| Blood Examinations | Date - 13 December 2023 |
|--------------------|-------------------------|
| Hb (g/dL) | 14.3 g/dL |
| RBC Count | 4.87 million/cmm |
| WBC Count | 8260 / cmm |
| Platelet Count | 460000 / cmm |
| ESR | 22 mm/1Hr |
| Uric Acid | 5.10 mg/dL |
| Calcium | 9.60 mg/dL |
| Alkaline Phosphate | 134.4 |
| CRP | <0.5 |

PERSONAL HISTORY

- Diet – Vegetarian
- Addiction – Cigarette 2-3/Day
Tobacco Chewing Product like Vimal, Mavo (Not Specific) 3-4/Day
- Occupation – Student
- Past History – Meconium Aspiration during Birth
- Family History – Mother having Hypothyroidism & Obesity

- Surgical History – Not Any.

Table 3: ASTAVIDHA PARIKSHA.^[4]

| | |
|----------------|----------------------------------|
| <i>Nadi</i> | 74/min, vata-kaphaja |
| <i>Mutra</i> | <i>Samyak</i> , 6-7 times/day |
| <i>Mala</i> | <i>Savibandh</i> , 1-2 times/day |
| <i>Jihva</i> | <i>Nirama</i> |
| <i>Sabda</i> | <i>Prakrut</i> |
| <i>Saprsha</i> | <i>Prakrut</i> |
| <i>Dvik</i> | <i>Prakrut</i> |
| <i>Akruti</i> | <i>Sthula</i> |

SYSTEMIC EXAMINATION

No any abnormalities were detected in GIT, Respiratory, Cardiovascular and Nervous examination.

SAMPRAPTI

Dosha: *Kapha pradhan tridosha Dushya: Rasa, Rakta, Mamsa, Meda*

Srotas: *Rasavaha, Raktavaha, Mansavaha, Medavaha*

Srotodushti: *Sanga Agni: Mandya*

Udbhav sthana: *Amashaya*

Vyakti sthana: *Tvacha of Udara, Vaksha & Griva Pradesha*

Rogamarga: *Abhyantara.*

Table 4: TREATMENT SCHEDULE (VIRECHANA KARMA).^[5]

| Date | PROCEDURE | DRUG & DOSE | | | | DURETION |
|--------------------------------|--|--|-------------------------|--------|-----------------|----------|
| 13/12/2023 to 16/12/2023 | <i>Deepana and Pachana</i> | <i>Trikatu churna</i> – 3gms x BD before meal with warm water | | | | 4 days |
| 17/12/2023 to 22/12/2023 | <i>Snehapana</i> | <i>Panchatikta Ghrita</i> <i>Anupana – Usnodaka</i> (as per <i>kostha & agni</i>) | | | | 6 days |
| | | DATE | GHRITA SEVAN KALA | DOSE | KSHUDHA KALA | |
| | | 17/10 | 6.30 AM | 30 ml | 9.15 AM | |
| | | 18/10 | 6.30 AM | 60 ml | 11.30 AM | |
| | | 19/10 | 6.45 AM | 90 ml | 1.00 PM | |
| | | 20/10 | 6.30 AM | 120 ml | 2.30 PM | |
| | | 21/10 | 6.45 AM | 150 ml | 4.30 PM | |
| | | 22/10 | 6.30 AM | 180 ml | 6.15 PM | |
| 23/12/2023 to | <i>Sarvanga Abhyanga and Swedana</i> | With <i>Nirgundi taila & Bashpa Sweda</i> | | | | 3 days |

| | | | |
|--------------------------------|------------------|---|--------|
| 25/12/2023 | | | |
| 26/12/2023 | Virechana Karma | <p>Virechana Aushadha: Triphala kwath – 150ml Eranda Sneha- 70 ml Time: Gate Shleshma kale (10:00 am) Anupana: Ushnodaka MADHYAMA SHUDDHI Laigiki Shuddhi – Laghuta, Indriyaprasad, Vit-Pitta-Kapha kramat, Agni Vriddhi. Vegiki Shuddhi- Vega-16, Upvega-10 Antiki Shuddhi- Kaphant</p> | 1 day |
| 27/12/2023 to 31/12/2023 | Samsarjana Karma | <p>Peyadi krama – Peya, Vilepi, Akruta-Yusa, Kruta-Yusa each of them was given for 2 Annakala</p> | 5 days |

Table 5: TRIKATU CHURNA.^[6]

| Name | Latin name | Part Use | Proportion |
|---------|-------------------------------------|----------|------------|
| Shunthi | <i>Zingiber officinalis</i> Roscoe. | Rhizome | 1 part |
| Maricha | <i>Piper nigrum</i> Linn. | Fruit | 1 part |
| Pippali | <i>Piper longum</i> Linn. | Fruit | 1 part |

Table 6: PANCHATIKA GHRITA.^[7]

| Drug Name | Latin Name / Scientific Name | Part Use | Proportion |
|-------------------|-----------------------------------|----------|------------------------|
| NIMBA | <i>Azadirachta indica</i> A.Juss. | Tvak | 1/6 TH PART |
| PATOLA | <i>Trichosanthes dioica</i> | Panchang | |
| KANTAKARI | <i>Solanum surratance</i> Burm.F. | Panchang | |
| GUDUCHI | <i>Tinospora cordifolia</i> Willd | Tvak | |
| VASA | <i>Adhatoda vasica</i> Nees. | Panchang | |
| GO-GHRITA | - | - | 1 PART |
| PANCHATIKA KWATHA | - | - | 4 PART |

TABLE 7: VIRECHANA YOGA.

| Name | Latin name | Part Use | Proportion |
|------------------------|-----------------------------------|----------|------------|
| TRIPHALA KWATHA | | | |
| Haritaki | <i>Terminalia chebula</i> Retz. | Fruit | 1 part |
| Bibhitaki | <i>Terminalia bellerica</i> Retz. | Fruit | 1 part |
| Amalaki | <i>Emblica officinalis</i> . | Fruit | 1 part |
| ERAND SNEHA | | | |
| Eranda Sneha | <i>Ricinus Communis</i> | Seed Oil | Q.S. |

OBSERVATION AND RESULTS

The patient was carefully monitored throughout the treatment period, and steady clinical improvements were noted. Assessment was based on parameters such as skin pigmentation (color and thickness), texture and roughness of the affected areas, the presence of itching or discomfort, and general health indicators like appetite, digestion, and energy levels. During the procedures, Snehapāna with Pañcatikta Ghṛita was successfully completed, with signs of proper oleation (Samyak Sneha Lakṣaṇas) observed like Tvak Mardavta, Mrugvangta, Vatanulomana, Diptoagni and Adahtaha Sneha darshana were appeared gradually upto sixth day. Abhyanga and Swedana effectively prepared the body for Virechana, as evidenced by increased skin softness and better circulation, indicating dosha mobilization. Virechana Karma with Triphala Kwatha and Eranda Sneha achieved Madhyama Śuddhi (moderate purification). The purification was evident through various Śuddhi Lakṣaṇas: Laingiki signs like lightness of the body, clarity of senses, sequential expulsion of stool, bile, and phlegm, and improved digestive fire (Agni Vṛiddhi); Vegiki signs with 16 primary and 10 secondary urges; and Antiki Śuddhi marked by the expulsion of Kapha at the end. Importantly, no complications or adverse effects were encountered during the entire course of treatment, suggesting that the therapy was both effective and well-tolerated.

Table 8: Results Post Virechana.

| Parameter | Before Treatment (13/12/23) | After Treatment (13/01/24) |
|------------------------------|--------------------------------|--|
| Weight | 80 KG | 68 KG |
| Skin pigmentation | Dark brown, velvety | Noticeably lighter |
| Skin texture | Thickened, rough | Softer and smoother |
| Affected area | Neck, axilla | Reduced spread and intensity |
| Itching/discomfort | Mild itching present | No itching |
| Digestive function | Poor appetite, bloating | Improved appetite, regular bowel movements |
| Overall patient satisfaction | Low | High |

Significant improvement was observed in pigmentation and texture of the skin. The patient also reported enhanced digestion, reduced lethargy, and overall better well-being. The outcome suggests the efficacy of *Virechana Karma* in managing metabolic and skin-related disorders like Acanthosis Nigricans from an *Ayurvedic* perspective.



BEFORE TREATMENT.



AFTER TREATMENT.

DISCUSSION

Acanthosis Nigricans is increasingly recognized as a cutaneous manifestation of underlying metabolic disturbances, particularly insulin resistance and obesity. While contemporary medicine addresses Acanthosis Nigricans through lifestyle modifications and topical agents,

such interventions often provide symptomatic relief without addressing the root causes.

In contrast, *Ayurveda* views such conditions as arising from the vitiation of *Pitta* and *Vata* doshas along with dushti of *Rakta*, *Meda*, and *Mamsa dhatus*. Impaired *Agni* (digestive fire), accumulation of *Ama* (metabolic toxins), and sedentary habits are considered key pathogenic factors. folds—show similarities with *Nilika*, which also involve *Krishna Varna* (dark discoloration) and *Utsedha* (raised skin lesions).

As per Acharya Charaka *Nilika* is mentioned under *Rakta-Pradoshaja Vikara* and *chikitsasutra* for the treatment of *Rakta-Pradoshaja vikara* is *Virechana*, *Rakta Mokshana*, *Upavasa* and *Raktapittahari kriya*. As Per Acharya Sushruta *Nilika* is mentioned under the *Kshudra Roga* and in *chikitsa* it is advice to go for *Shiraveda*.^[8]

In this case, the patient presented with classical signs of *Acanthosis Nigricans* along with metabolic symptoms like weight gain, lethargy, and poor digestion. The treatment protocol was centered around *Virechana Karma*, a *Pitta-virechana* therapy designed to eliminate vitiated *doshas* and restore digestive and metabolic balance. Preceded by *Deepana-Pachana*, *Snehapana* with *Panchatikta Ghrita* facilitated internal oleation and mobilization of *doshas*. *Panchatikta Ghrita* is specifically indicated in disorders of *Meda Dhatu* and possesses *Deepana*, *Pachana*, and *Lekhana* properties.

The *Virechana Karma* was performed using *Triphala Kwatha* and *Eranda Sneha*, both of which support detoxification and regulate *Kapha-Pitta* dosha. *Triphala* is known for its *Rasayana* effect and mild laxative action, while *Eranda Sneha* offers potent *virechaka* properties. The procedure successfully achieved *Madhyama Shuddhi*, the ideal degree of purification in subacute or chronic conditions.

Post-therapy outcomes were notable: weight reduction, visible improvement in skin pigmentation and texture, and enhanced digestion and energy levels. These changes affirm the role of *Virechana* in correcting *Agni*, eliminating *Ama*, and reestablishing *doshic* equilibrium. The holistic impact observed reinforces the *Ayurvedic* notion that systemic detoxification and restoration of *Dhatu* health are vital in managing dermatological and metabolic disorders.

While this case demonstrates promising outcomes, it also underscores the need for broader clinical studies to evaluate the reproducibility and long-term efficacy of *Ayurvedic* interventions in conditions like *Acanthosis Nigricans*.

CONCLUSION

The present case was presented with complaining of Blackish discoloration of the skin, especially over the face, neck, axilla, chest and back region and also Increased Body Weight associated with foul smelling of Body odour, Laziness in day-to-day activities. The case was successfully treated with Virechana Karma and oral Ayurvedic medications without surgical intervention. The patient was free from all the signs and symptoms after completion. Patient had a significant weight loss of 12 KG during the treatment and Skin gradually turn lighter and lustrous. This approach of treatment can be taken into consideration for further research work.

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