

Personalised Nutrition in VKH Disease: Addressing Inflammation, Vision, and Hormonal Health

-A Case Study on Autoimmune Eye Disease and Perimenopausal Transition

Abstract

This case report describes the nutritional management of a middle aged female client diagnosed with Vogt-Koyanagi-Harada (VKH) disease, an autoimmune inflammatory disorder, with multiple co-existing metabolic and hormonal challenges. The client exhibited hypertension, progressive weight gain, dyslipidemia characterized by elevated triglycerides and low density lipoprotein (LDL) cholesterol, and irregular menstrual cycles. During the course of nutritional intervention, further clinical evaluation revealed an underlying hormonal imbalance, and the client was identified to be in the peri-menopausal phase, which became increasingly evident over a seven-month structured nutrition journey.

A personalized therapeutic nutrition plan was implemented to address systemic inflammation, immune dysregulation, cardiometabolic abnormalities, and hormonal fluctuations, while supporting sustainable weight management. The intervention prioritized long-term metabolic and hormonal regulation over rapid weight loss, with periodic dietary modifications guided by clinical symptoms, biochemical markers, and peri-menopausal physiological changes.

This case underscores the importance of individualized, root-cause based nutritional therapy in the management of autoimmune conditions complicated by metabolic and hormonal transitions, particularly in peri-menopausal women.

Introduction

This case study presents a client diagnosed with Vogt-Koyanagi-Harada (VKH) disease, a rare autoimmune condition where the body's defence system mistakenly attacks its own tissues, especially the eyes. Because of this, the client experienced ongoing eye discomfort, sensitivity to light, and changes in vision, making daily activities difficult and tiring.

Alongside VKH, the client was also managing chronic inflammation, which kept the body in a constant state of stress. This ongoing irritation did not remain limited to one

area-it affected overall energy levels, slowed recovery, and increased sensitivity to food, stress, and lifestyle changes.

The presence of high blood pressure added another challenge. Blood pressure fluctuations can put extra strain on blood vessels, including those supplying the eyes, which may worsen eye symptoms and increase headaches, fatigue, and discomfort if not managed carefully.

The client also showed early cataract changes, further affecting visual clarity and eye comfort. With both VKH-related eye inflammation and cataract changes present, eye care and nutritional support needed to be especially gentle and well planned to avoid further irritation.

Adding to this complexity was perimenopause, a natural hormonal transition that brought heavy menstrual bleeding, low energy, mood changes, and nutrient loss. During this phase, the body becomes more sensitive, and strong dietary restrictions or aggressive supplements can easily disturb blood pressure, inflammation, and immune balance.

Because the client was dealing with multiple overlapping conditions at the same time, a one-size-fits-all plan was not suitable. This case highlights how a carefully paced, personalised nutrition and herbal approach, focused on calming the body and supporting gradual balance, can help manage autoimmune disease, eye health, blood pressure, inflammation, and hormonal changes together in a safe and sustainable way

Client Profile

- **Name:** Ms. Haritha
- **Age:** 48 years
- **Dietary Preference:** Non-vegetarian
- **Lifestyle Pattern:** Sedentary
- **Clinical Background:** VKH disease, autoimmune inflammation, hypertension, perimenopausal history
- **Date of Nutrition Intervention Initiation:** March 2025

Medical Background

Ms. Haritha, a 48-year-old female, presented with a complex medical history marked by **Vogt-Koyanagi-Harada (VKH) disease**, a chronic autoimmune inflammatory condition with predominant ocular involvement. The disease process was

characterised by persistent systemic inflammation, placing her at increased risk of immune-mediated flare-ups and visual complications.

In addition to VKH disease, the client had a history of **hypertension**, requiring careful nutritional planning to avoid fluid imbalance, excessive sodium intake, and vascular stress. The coexistence of autoimmune inflammation and cardiovascular risk necessitated a **non-aggressive, inflammation-modulating approach**, rather than immune-stimulating strategies.

The client also reported a history consistent with **perimenopausal transition**, complicated by **episodes of heavy menstrual bleeding**, which contributed to **iron depletion, fatigue, and reduced physiological resilience**. Age-related changes further influenced nutrient absorption, recovery capacity, and inflammatory regulation.

Given the overlap of **autoimmune disease, ocular involvement, hypertension, and hormonal–nutrient imbalance**, the primary clinical concern was to stabilise inflammation without exacerbating immune activity, while gradually supporting **eye health, micronutrient status, and overall systemic balance** through a carefully phased nutritional and herbal intervention.

Clinical Significance & Nutrition Implications

This case highlights the importance of individualized, root-cause based nutritional therapy in managing complex autoimmune conditions compounded by cardiovascular risk factors and hormonal transitions. It underscores the role of an experienced clinical dietitian in integrating nutrition with medical management to support immune regulation, eye health, blood pressure control, and hormonal balance in a safe and sustainable manner.

Given the presence of multiple overlapping conditions autoimmune disease, chronic inflammation, ocular involvement, hypertension, and peri-menopausal hormonal transition a standardized or restrictive dietary protocol was not suitable.

A personalized, therapeutic nutrition and herbal-support approach was therefore designed with the primary objectives of:

Reducing systemic inflammation and immune overactivation

Supporting ocular and vascular health

Stabilizing blood pressure through diet-based modulation

Minimizing hormonal stress during peri-menopause

Promoting gradual metabolic balance without triggering flare-ups

The intervention emphasized gentle progression, physiological tolerance, and long-term sustainability, with ongoing adjustments based on symptom response, tolerance, and clinical indicators.

Anthropometric Assessment

48-year-old female, an age group associated with physiological changes affecting metabolic efficiency, lean body mass maintenance, inflammatory regulation, and nutrient utilization. These age-related factors were carefully considered in the context of her existing autoimmune condition and hypertension.

Anthropometric monitoring was therefore conducted with a conservative and protective approach, prioritizing:

- Preservation of lean muscle mass
- Prevention of further nutrient depletion
- Avoidance of inflammation- or stress-induced metabolic imbalance
- Support of overall physiological stability

This approach ensured that nutritional intervention remained therapeutic, sustainable, and aligned with the client's medical condition, rather than driven by short-term weight-centric goals.

Baseline Assessment (Pre-Intervention Status)

At the time of initial assessment, Ms. Haritha, a 48-year-old female, presented with multiple overlapping clinical concerns related to **autoimmune inflammation, ocular involvement, vascular health, and hormonal history**.

- The patient presented with ocular symptoms consistent with VKH disease, including episodes of blurred vision, photophobia, and eye fatigue, indicating ongoing inflammatory involvement of ocular tissues. This was accompanied by a history of hypertension with fluctuating blood pressure readings, requiring careful dietary sodium management and avoidance of interventions that could aggravate vascular stress. Persistent systemic inflammation was evident through fatigue, reduced stamina, and inflammatory sensitivity, making inflammation control a primary clinical priority given the autoimmune nature of the condition. The menstrual history revealed

perimenopausal heavy bleeding, contributing to iron depletion, weakness, and prolonged post-cycle recovery despite advancing age. Additionally, reduced energy levels, easy fatigability, and non-restorative sleep patterns were reported, reflecting the combined effects of chronic inflammation and age-related physiological changes.

Nutritional Assessment

Her Dietary Pattern :

Ms. Haritha followed a **non-vegetarian diet**, but dietary analysis revealed:

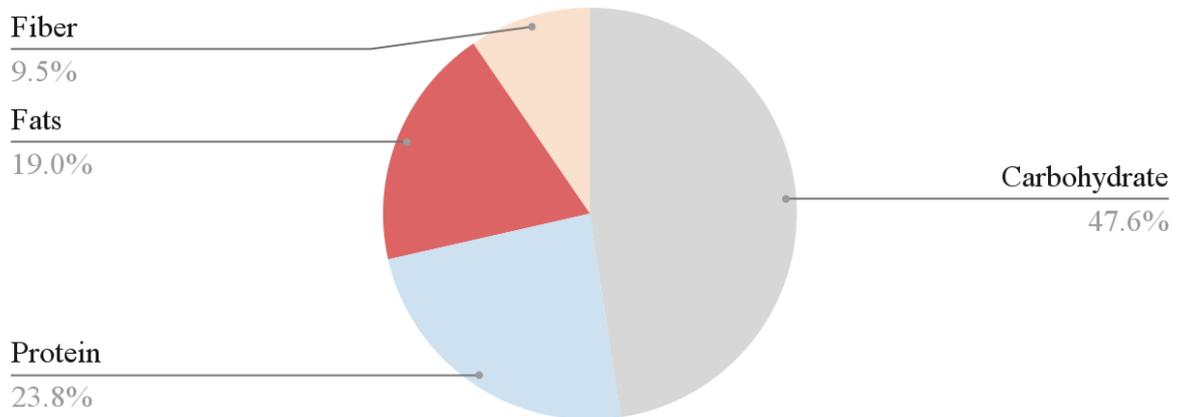
- Inconsistent protein intake
- Low overall nutrient density

Meals were often carbohydrate rich, with insufficient inclusion of protein and anti-inflammatory fats.

Previously she was following unbalanced meals after connecting with us she got a right n correct approach towards diet n calories

Our Dietary Approach:

Macronutrient Distribution



Micronutrient Risks

- **Vitamin A insufficiency**, relevant for eye health and immune balance
- Low antioxidant intake affecting inflammation control
- **Iron with the combination of Vit C** to boost immune health and Regulate Periods Flow

- **Omega-3 and Magnesium** were introduced for inflammation and balancing hormones.

Fluids & Sodium

- Fluid intake required optimisation
- Sodium exposure needed careful monitoring due to hypertension

Age-related Considerations

Reduced digestive efficiency, slower absorption, and altered metabolism were key factors influencing nutrient planning.

NUTRITION INTERVENTION

During the nutrition intervention period, the client was identified to be in the peri-menopausal phase, presenting with heavy menstrual bleeding, low energy levels, mood fluctuations, and increased nutrient depletion. Hormonal variability during this transition phase increased physiological sensitivity, making aggressive dietary restriction or unsupervised supplementation clinically inappropriate, particularly in the presence of hypertension and autoimmune disease.

Rationale Behind the Approach

This case required **immune regulation, not immune stimulation.**

- **Why immune calming was prioritised:**
The focus was on calming inflammatory pathways rather than boosting immunity.
- **Why phase-wise intervention was used:**
As a woman's body shifts between her menstrual phases so nutrition should match the phases of the cycle.
And inclusion of all the nutrients one time can possibly hinder the absorption.
- **Why iron was delayed:**
Iron supplementation during active inflammation can worsen oxidative stress. Iron was introduced only after inflammation showed signs of stabilisation.
- **Why vitamin A was food-based:**
High-dose vitamin A supplementation carries toxicity risk, especially in older adults. Food-based sources ensured safety and bio-regulation.

Herbal Protocol

Herb(Common Name)	Scientific Name	Nutritional / Support Role
Moringa	<i>Moringa oleifera</i>	Naturally rich in vitamins and minerals; supports nourishment and helps calm inflammation
Licorice (carefully monitored)	<i>Glycyrrhiza glabra</i>	Supports stress balance and inflammation control; used in limited amounts with BP monitoring
Nettle Leaf Tea	<i>Urtica dioica</i>	Gentle mineral support; supports blood strength and eye nourishment
Rosehip Tea	<i>Rosa canina</i>	High in antioxidants and vitamin C, supports eye and blood vessel health
Coriander	<i>Coriandrum sativum</i>	Cooling herb supports digestion and reduces internal irritation
Chamomile	<i>Matricaria chamomilla</i>	Calms the nervous system; supports sleep and gentle inflammation reduction

Fennel	<i>Foeniculum vulgare</i>	Supports digestion and hormonal comfort; reduces gut strain
Ashwagandha (carefully dosed)	<i>Withania somnifera</i>	Supports stress resilience and energy balance; introduced cautiously
Fenugreek	<i>Trigonella foenum-graecum</i>	Supports metabolic balance and digestion; helps reduce inflammation load
Spearmint Tea	<i>Mentha spicata</i>	Supports hormonal comfort and has gentle anti-inflammatory action
Cinnamon	<i>Cinnamomum verum</i>	Supports blood sugar and lipid balance; helps reduce internal inflammation

Safety Measures:

- Strict avoidance of strong immune stimulants
- Controlled dosages and timings
- Continuous monitoring due to age and hypertension

Lifestyle & Supportive Measures

To complement nutrition:

- **Stress regulation:** Gentle routines and reduced physiological stressors
- **Sleep support:** Structured sleep timing and calming evening practices
- **Movement:** Light, tolerance-based physical activity to maintain circulation
- **Eye care:** Reduced screen exposure, regular eye rest, and light protection

Monitoring & Follow-Up Parameters

Given the client's **advanced age, autoimmune condition, hypertension, and ocular involvement**, close monitoring was essential throughout the intervention. The primary goal of follow-up was to **ensure safety, tolerance, and gradual improvement**, rather than rapid symptom resolution.

Parameters Monitored

Blood Pressure Monitoring

- Blood pressure was monitored regularly to assess tolerance to dietary changes and herbal inclusion.
- Sodium intake, fluid balance, and herbs with potential vascular effects (e.g. licorice) were closely observed.
- Any signs of dizziness, headaches, or pressure fluctuations were addressed immediately through dietary adjustment.

Inflammation & Symptom Tracking

- Subjective markers such as fatigue, body heaviness, recovery time, and inflammatory sensitivity were recorded.
- Special attention was paid to signs of autoimmune flare, including increased eye discomfort or systemic fatigue.

Energy, Sleep & Daily Function

- Energy levels during the day, ease of performing daily activities, and sleep quality were reviewed.
- Sleep disruptions or excessive fatigue were treated as early signs of overload or imbalance.

Digestive Tolerance

- Appetite, bloating, bowel regularity, and overall digestive comfort were monitored, considering age-related digestive sensitivity.
- Meal size, food texture, and timing were modified when required.

Hormonal & Menstrual History Consideration

- Although active menstruation was not ongoing due to age, the history of perimenopausal heavy bleeding requires mineral support.

- Iron tolerance, fatigue levels, and recovery capacity were closely observed.

Challenges & Modifications

Managing VKH disease in an elderly client with **autoimmune inflammation, hypertension, and a perimenopausal hormonal history** required continuous reassessment and flexibility. The primary challenge was to **support recovery without placing excessive demand on the body**, as tolerance levels were limited and responses were gradual.

Key Challenges

Multiple Conditions Occurring Together

The presence of autoimmune inflammation alongside high blood pressure and hormonal imbalance meant that changes in diet or herbal support could influence overall stability. Each intervention needed to be assessed for its effect on inflammation levels, energy, digestion, and cardiovascular comfort.

Reduced Adaptability Due to Age

At 48 years of age, the body's ability to adjust to nutritional changes was slower. Sudden shifts in food patterns, portion sizes, or supplementation were poorly tolerated, making a slow and steady approach essential.

Persistent Inflammation-Related Fatigue

Chronic inflammation contributed to low energy levels, easy tiredness, and reduced endurance. Appetite and digestion often fluctuated in response to fatigue, requiring flexibility in meal planning.

Blood Pressure Sensitivity

Blood pressure variability was influenced by stress, hydration status, and dietary intake. This limited the use of certain herbs and required strict attention to sodium intake, fluid balance, and overall dietary consistency.

Digestive Sensitivity

Age-related digestive changes led to sensitivity toward heavy meals, large portions, or overly complex food combinations. Nutritional planning needed to prioritise simplicity and ease of digestion.

Conclusion

This case study shows how a **well-planned, personalised nutrition and herbal approach** can help manage complex health conditions like **Vogt-Koyanagi-Harada (VKH) disease**, especially when it occurs along with **long-term inflammation, high blood pressure, metabolic imbalance, and hormonal changes related to perimenopause**. In such situations, strong diets or immune-boosting methods can do more harm than good.

By focusing on **calming inflammation, keeping the body stable, and respecting the body's limits**, the plan supported steady improvement without putting extra stress on the system. Careful balance of daily nutrients, gentle correction of nutrient gaps, and safe use of herbs helped maintain nourishment while keeping blood pressure and overall health steady.

This case clearly highlights that **nutrition care for autoimmune and age-related conditions must be personal, slow, and flexible**. Long-term balance and better quality of life are best achieved through **consistent, gentle, and closely monitored nutrition support**, especially in older adults dealing with multiple health challenges.

