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MEDOVAHA SROTODUSHTI IN NON-ALCOHOLIC FATTY LIVER DISEASE: AN INTEGRATED AYURVEDIC AND CONTEMPORARY PERSPECTIVE

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Abstract

Non-alcoholic fatty liver disease (NAFLD), recently reclassified as Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD). This condition represents a significant global health burden with an estimated prevalence of 25-32% worldwide. This comprehensive review explores the Ayurvedic concept of *Medovaha Srotodushti* (vitiation of channels carrying adipose tissue) and its relationship to NAFLD pathogenesis. Through systematic analysis of classical Ayurvedic texts and contemporary scientific literature, the etiological factors, pathophysiological mechanisms, clinical manifestations and management strategies that connect these two diagnostic paradigms were examined. The review highlights that dietary indiscretions, sedentary lifestyle genetic predispositions contribute to both *Medovaha Srotodushti* and NAFLD through similar metabolic pathways. Ayurvedic management emphasizes *shodhana chikitsa* (purification therapies), *medohara dravya* (fat-reducing substances), and *pathya-apathya* (dietary and lifestyle modifications) which show promising results in clinical applications. Integration of Ayurvedic principles with modern medical approaches offers a comprehensive framework for addressing the multifactorial nature of NAFLD, potentially leading to more effective prevention and treatment strategies. This synthesis of traditional wisdom and contemporary science provides valuable insights for clinicians and researchers seeking holistic approaches to metabolic liver disorders.

Key words: *Medovaha srotas*, NAFLD, Ayurveda, Integration

1. INTRODUCTION

Non-alcoholic fatty liver disease (NAFLD) has emerged as a prevalent metabolic disorder affecting approximately 32% of adults globally, with higher prevalence among males than females[1]. The condition encompasses a spectrum of liver pathologies ranging from simple steatosis to non-alcoholic steatohepatitis (NASH), which can progress to fibrosis, cirrhosis, and hepatocellular carcinoma. Recently, the term metabolic-associated fatty liver disease (MAFLD) has been introduced to emphasize the metabolic underpinnings of this condition. The primary driver of NAFLD is overnutrition, leading to visceral fat accumulation, insulin resistance, and subsequent hepatic fat infiltration. Despite its significant prevalence and potential for serious complications, effective pharmacological treatments remain limited in contemporary medicine.

In Ayurveda, while NAFLD is not explicitly described as a distinct disease entity. Its pathophysiology can be understood through the concept of *Srotodushti* (vitiation of bodily channels) specifically affecting the *Medovaha Srotas*[2] (channels carrying adipose tissue). Ayurvedic literature suggests that impairment in the digestion, metabolism, and transportation of fat leads to the accumulation of *Ama* (metabolic toxins) and disturbed *Meda Dhatu* (adipose tissue), which ultimately manifests as liver disorders. The manifestation of NAFLD closely resembles the description of conditions arising from *Medodhatvagnimandya* (diminished metabolic activity of fat tissue) and subsequent *Medovaha Srotodushti*.

The integration of Ayurvedic principles with modern biomedical understanding offers a holistic framework for comprehending NAFLD pathogenesis. And also, for developing comprehensive management strategies. This review aims to synthesize the classical Ayurvedic concepts of *Medovaha Srotodushti* with contemporary scientific knowledge of NAFLD, exploring points of convergence and divergence in etiology, pathophysiology, clinical presentation, and therapeutic approaches[3]. By bridging these two medical paradigms, this study provides a more comprehensive understanding of this prevalent metabolic disorder. And facilitate the development of integrated treatment protocols that address both the manifestations and root causes of the condition.

2. MATERIALS AND METHODS

This comprehensive review employed a systematic approach to analyzing both classical Ayurvedic texts and contemporary scientific literature on NAFLD and *Medovaha Srotodushti*.

The methodology consisted of two main components, literary research and clinical data analysis, following the approach used in several of the reviewed studies.

2.1 Literary Research

The literary study involved a critical review of relevant Ayurvedic classics including Charaka Samhita, Sushruta Samhita, Ashtanga Sangraha, and their principal commentaries. These texts were examined for descriptions of *Medovaha Srotas*, its *moolasthana* (root sites), functions, and characteristics of vitiation. Additionally, modern medical texts and research articles were consulted to understand the contemporary understanding of NAFLD pathophysiology, diagnosis, and management. The comparative analysis focused on identifying parallel concepts, mechanisms, and clinical features between the two medical systems.

2.2 Clinical Data Analysis

This component incorporated analysis of data from published studies examining the relationship between *Medovaha Srotodushti* and metabolic disorders. This included examination of studies with patient populations categorized according to body mass index (BMI), prakriti (constitutional type), and clinical signs of *Srotodushti*. Statistical methods including correlation coefficients were analyzed to identify significant relationships between Ayurvedic parameters and biomedical markers of metabolic dysfunction.

2.3 Inclusion and Exclusion Criteria

The review prioritized primary Ayurvedic sources and peer-reviewed research articles published in English within 2019-2024 where available. Studies focusing on non-alcoholic fatty liver disease, metabolic syndrome, dyslipidemia, and related conditions were included. Case reports, non-systematic reviews, and articles not available in English were excluded from the analysis.

3. LITERATURE REVIEW

3.1 Etiological Factors (*Nidana*)

3.1.1 Ayurvedic Perspective [4],[5],[6],[7],[8],[9]

According to Ayurvedic principles, the vitiation of *Medovaha Srotas* primarily results from dietary indiscretions and lifestyle factors that aggravate Kapha and Meda. Table 01,02,03 contains *Annaja, Viharaja, Manasika nidana karana* of this condition.

3.1.2 Contemporary Medical Perspective [10]

Modern medicine identifies several overlapping risk factors for NAFLD including, Overnutrition and excessive calorie intake, particularly of refined carbohydrates and saturated fats. Sedentary behavior and lack of physical exercise, which reduces energy expenditure and promotes adiposity. Insulin resistance which promotes lipolysis and increased free fatty acid influx to the liver. Genetic polymorphisms that influence lipid metabolism and inflammatory pathways. Table 04 shows Comparative Etiological Factors in *Medovaha Srotodushti* and NAFLD.

3.2 Pathophysiological Mechanisms (*Samprapti*)

3.2.1 Ayurvedic Pathogenesis [11]

The pathogenesis of NAFLD through the Ayurvedic perspective involves multiple interconnected mechanisms. *Agni Vaishamya* (irregular digestive and metabolic fire) plays major role in this pathogenesis. The initial impairment of *Jatharagni* (digestive fire) and subsequent *Dhatwagnimandya* (tissue-level metabolic impairment) specifically affecting *Medodhatvagni* leads to improper formation and circulation of meda dhatu. It causes for occurring *Srotovaigunya* (defect in microchannels). The vitiation of *Medovaha Srotas* creates susceptibility for fat accumulation in various organs. When this affects the *Yakrit* (liver), it manifests as fatty liver disease. Primarily *Kapha* and *Meda* accumulation, with secondary involvement of *Pitta* due to the liver is Pitta-predominant nature. As the disease progresses. *Vata* may also become involved, leading to more severe tissue damage and fibrosis. Table 05 shows *Sampraptighatakas* of *Medovaha sroto dushti*.

3.2.2 Contemporary Pathogenesis [12]

The modern understanding of NAFLD pathogenesis involves several key mechanisms. Lipotoxicity- Excessive free fatty acids overwhelm mitochondrial β-oxidation capacity, leading to toxic lipid species that promote cellular stress and apoptosis. Insulin resistance- In adipose tissue, liver, and muscle, which promotes lipolysis and de novo lipogenesis while reducing fatty acid oxidation. Inflammatory activation- Recruitment of immune cells and release of pro-inflammatory cytokines that promote hepatocyte injury and fibrogenesis. And Gut-liver axis disruption- Altered gut microbiota composition and increased intestinal permeability which contribute to hepatic inflammation.

3.3 Disease Progression Patterns

The progression from simple steatosis to NASH and fibrosis can be understood through both Ayurvedic and biomedical frameworks. Initial stage is dominated by *Kapha* and *Meda* accumulation, manifesting as simple steatosis (*Medasavrita Yakrit*). Second stage (Progressive stage) *Pitta* involvement leads to inflammation and hepatocyte injury, corresponding to NASH Finale stage (Advanced stage) *Vata* involvement with *Dhatu Kshaya* (tissue depletion) leads to fibrosis and cirrhosis.

3.4 Clinical Manifestations (*Rupa* and *Lakshana*) of *Medovaha Sroto Dusti*[13]

Medovaha sroto dushti shows multi systemic features. Table 06 shows clinical manifestation of *Medovaha sroto dushti* according to few Ayurveda classics.

4. DIAGNOSTIC APPROACHES (*PARIKSHA*)

4.1 Ayurvedic Assessment Methods

The diagnostic approach to *Medovaha Srotodushti* involves various Ayurvedic *Roga* and *Rogi pariksha* methods. Table 07 shows *Ashtavidha pariksha* assessment of *Medovaha sroto dushti* and Table 08 shows *Dashavidha pariksha* of *Medovaha sroto dushti.*

4.2 Modern Diagnostic Tools for NAFLD[14]

The diagnosis and stratification of NAFLD require a multifaceted diagnostic approach. Normally doctors rely on a combination of serological biomarkers, noninvasive imaging and histopathological evaluation to confirm the presence of pathologies related to NAFLD. Mainly hepatic steatosis and differentiate between non-alcoholic fatty liver (NAFL) and non-alcoholic steatohepatitis (NASH) as well as the stage the degree of fibrosis.

4.2.1 Blood Tests

Initial screening often involves liver enzyme assays. Elevated serum levels of alanine aminotransferase (ALT) and aspartate aminotransferase (AST) are suggestive of hepatocellular injury. ALT and AST are lacking specificity for NAFLD etiology. To non-invasively assess fibrosis, composite serum biomarkers and scores such as the FIB-4 (Fibrosis-4) index and the AST to Platelet Ratio Index (APRI) are calculated. These tools help identify patients at high risk for advanced fibrosis who may require further intervention.

Additional blood tests are essential to exclude other causes of liver disease, such as viral hepatitis or autoimmune disorders.

4.2.2 Imaging techniques

Conventional imaging methods, including ultrasound, computed tomography (CT), and magnetic resonance imaging (MRI) are commonly using. These tests are effective for detecting hepatic steatosis by visualizing fat infiltration. There is a critical limitation, their inability to reliably distinguish simple steatosis (NAFL) from the inflammation and cellular injury characteristic of NASH.

To address the need for non-invasive fibrosis assessment, elastography techniques have been developed. These techniques measure liver stiffness, a surrogate marker for fibrosis, and are instrumental in risk stratification. Table 09 shows these newly developed techniques.

4.2.3 Liver Biopsy

Percutaneous liver biopsy remains the gold standard for diagnosis. It is the only method that can provide a definitive diagnosis of NASH, by histologically confirming the presence of hepatocyte ballooning, lobular inflammation, and steatosis. It allows for precise staging of fibrosis severity.

5. MANAGEMENT STRATEGIES (*CHIKITSA*)[15]

5.1 Ayurvedic Interventions

The management of NAFLD through the perspective of *Medovaha Srotodushti* involves multifaceted approaches, such as *Shodhana Chikitsa* (Purification therapies), *Shamana Chikitsa* (Palliative treatments)

Under *Shodhana Karma,* Vamana (therapeutic emesis) and *Virechana* (therapeutic purgation) are particularly indicated for eliminating excess *Kapha and Pitta,* and for clearing obstructed *Medovaha Srotas. Shamana Chikitsa* (Palliative treatments) includes a wide range of herbal formulations with *Lekhaniya* (scraping) properties that help reduce excessive *meda dhatu*.

5.2 Lifestyle Modifications (Pathya-Apathya)

Triphala Guggulu known for its lipid-lowering and hepatoprotective properties. *Arogyavardhini Vati*, a classical formulation containing *Kutki, Shuddha Guggulu*, and other

ingredients that promote liver health and metabolic functions. *Punarnavadi Mandoor* are few common combined medicines.

Single herbs with proven efficacy in managing *Medovaha Srotodushti* and liver disorders include *Guduchi (Tinospora cordifolia)* which has hepatoprotective and immunomodulatory properties, *Kutaki (Picrorhiza kurroa)* which has liver protective and bile-promoting action, *Bhumi Amalaki (Phyllanthus niruri)* which has liver protective and lipid-normalizing effects, *Guggulu (Commiphora mukul)* which has lipid-lowering and anti-inflammatory properties are commonly use for single herbal medicine, *anupana* (vehicle) or for medicine preparations.

Dietary recommendations (*Pathya*) emphasis on *Laghu* (light), *Ruksha* (dry), and *Ushna* (warm) foods that counteract Kapha and Meda accumulation. Specific recommendations such as whole grains like barley and millets, bitter vegetables like bitter gourd, fenugreek, and leafy greens, pulses and legumes, bee honey in moderation (replaces sugar), warm water consumption throughout the day useful when management starts.

As lifestyle recommendations regular exercise is emphasized as crucial in both Ayurvedic and biomedical approaches. *Vyayama* (physical exercise) specifically recommended according to individual capacity helps in burning accumulated *meda* and improving insulin sensitivity.

Reduction or elimination of *Guru* (heavy), *Snigdha* (unctuous), *Sheeta* (cold), and *Pichchila* (slimy) foods that aggravate Kapha and Meda. This includes dairy products, fried foods, processed foods, refined carbohydrates, and sweet beverages should be avoided or reduced. (*Apathya*)

5.3 Modern Medical Approaches [16]

5.3.1 Contemporary medical management of NAFLD

Pharmacological interventions such as Vitamin E (antioxidant) and Pioglitazone (insulin sensitizer) are the only medications with some evidence of benefit in non-diabetic NASH patients.

Weight management, gradual weight loss of 5-10% has been shown to significantly improve hepatic steatosis and even fibrosis in some cases.

Management of comorbidities such as optimal control of diabetes, dyslipidemia, and hypertension is essential in comprehensive NAFLD management.

Flavonoid supplementation including compounds such as quercetin, epigallocatechin gallate, naringenin and isoflavones have shown promise in reducing liver fat content and improving liver enzyme profiles.

6. Discussion

The integration of Ayurvedic concepts of *Medovaha Srotodushti* with the modern understanding of NAFLD provides a comprehensive framework for understanding and managing this increasingly prevalent condition. The Ayurvedic perspective offers valuable insights into the metabolic interrelationships between different tissue systems and emphasizes the importance of addressing fundamental digestive and metabolic impairments (Agni) rather than focusing solely on the liver.

6.1 Integration of Traditional and Modern Concepts

The correlation between *Kapha Prakriti* and obesity provides scientific validation for the Ayurvedic concept of constitutional predisposition. Similarly, the significant association between sedentary lifestyle and *Medovaha Srotodushti* (supports the Ayurvedic emphasis on physical activity. The biochemical correlations observed between serum lipid parameters and clinical signs of *Srotodushti* further strengthen the integrative model.

6.2 Clinical Implications

The integrated approach offers several clinical advantages such as,

Preventive focus, ayurvedic assessment identifies early signs of *Srotodushti* before overt disease manifestation. Prakriti-based classification allows for individualized treatment strategies senses integration of personalized medicine. Holistic management approach addresses multiple system involvement rather than isolated organ pathology. Lifestyle integration such as emphasizing sustainable dietary and behavioral modifications rather than solely pharmacological intervention

6.3 Future Directions

Future research should focus on, standardization of diagnostic criteria for *Medovaha Srotodushti* in the context of NAFLD, Well-designed clinical trials evaluating specific

Ayurvedic interventions using robust endpoints, Mechanistic studies to elucidate the molecular pathways through which Ayurvedic interventions exert their effects, Integrated clinical protocols that combine the best of both traditional and modern approaches

7. Conclusion

The review of *Medovaha Srotodushti* in the context of non-alcoholic fatty liver disease reveals significant parallels between Ayurvedic and biomedical understandings of this condition. The Ayurvedic conceptual framework provides a holistic perspective that encompasses the metabolic interrelationships, digestive functions, and lifestyle factors that contribute to the development and progression of NAFLD.

Management strategies that integrate Ayurvedic principles including dietary and lifestyle modifications (*Pathya-Apathya*), herbal medicines with *Medohara* and hepatoprotective properties, and Panchakarma procedures for detoxification and rejuvenation offer a comprehensive approach to addressing both the manifestations and root causes of NAFLD. Current evidence, while limited by methodological issues, suggests that these approaches have promise in the management of NAFLD.

The integration of Ayurvedic wisdom with contemporary medical science presents an opportunity to develop more effective, personalized, and comprehensive approaches to preventing and managing NAFLD, potentially reducing the growing global burden of this metabolic liver disorder. Future research focusing on rigorous clinical trials and mechanistic studies will help to better integrate these traditional concepts and interventions into mainstream healthcare.

Table 01: *Aharaja Nidana* (Dietary causative factors) of *Medovaha Sroto Dushti*

No	***Aharaja Nidana***	Ch.	Su.	A.S.	A.H.	M.N	B.P
1	*Ati Sampurana* (Over eating)	+	-	+	-	-	-
2	*Santarpana*	+	-	+	+	-	-
3	*Adhyashana*	-	+	-	-	-	-
4	*Guru Aharasevana* (Excessive consumption of Heavy food)	+	-	-	-	-	-

5	*Madhura Aharasevana* (Excessive consumption of sweet food)	+	-	+	+	-	+
6	*Sheeta Aharasevana* (Excessive consumption of cold diet)	+	-	-	-	-	-
7	*Snigdha Aharasevana* (Excessive consumption of unctuous food)	+	-	+	+	-	+
8	*Sleshmala Aharasevana* (*Kapha* increasing food)	+	+	-	-	+	+
9	*Navannasevana* (Usage of fresh grains)	+	-	-	-	-	-
10	*Nava Madyasevana* (Usage of fresh alcoholic preparation)	+	-	-	-	-	-
11	*Gramya Rasasevana* (Usage of domestic animal's meat & soups)	+	-	-	-	-	-
12	*Audak Rasasevana* (Usage of aquatic animal's meat & soups)	+	-	-	-	-	-
13	*Mamsa Sevana* (Excessive use of meat)	+	-	+	+	-	-
14	*Paya Vikara Sevana* (Excessive usage of milk and it's preparations)	+	-	+	+	-	-
15	*Dadhi Sevana* (Excessive use of curd)	+	-	-	-	-	-
16	*Sarpi Sevana* (Usage of Ghee)	+	-	-	+	-	-
17	*Ikshu Vikara Sevana* (Usage of sugarcane's Preparations)	+	-	-	+	-	-
18	*Guda Vikara Sevana* (Usage of jaggery's preparations)	+	-	-	-	-	-
19	*Shali Sevana* (Excessive use of Rice)	+	-	-	-	-	-
20	*Godhuma Sevana* (Excessive use of wheat)	+	-	-	-	-	-
21	*Masha Sevana* (Usage of *Phaseolus mungo*)	+	-	-	-	-	-
22	*Rasayana Sevana*	+	-	-	-	-	-
23	*Vrushya Sevana*	+	-	-	-	-	-

Ch.- Charaka Samhita, Su.-Susruta Samhita, A.S- Ashtanga Samgraha, A.H- Ashtanga Hridaya Samhita, M.N-Madhava Nidana, B.P-Bhava Prakasha

Table 02: *Viharaja Nidana* (Behavioral causative factors) of *Medovaha Sroto Dushti*

No.	***Viharaja Nidana***	Ch.	Su.	A.S.	A.H.	MN.	B.P.
1	*Avyayama* (Lack of physical exercise)	+	+	+	-	+	+
2	*Avyavaya* (Lack of sexual life)	+	-	+	-	-	-
3	*Divaswapa* (Day's sleep)	+	+	+	-	+	+
4	*Asana Sukha* (Luxurious sitting)	+	-	+	+	-	-
5	*Swapnaprasangat* (Excessive sleep)	+	-	+	+	-	-
6	*Gandhamalyanu Sevana* (Using of perfumes, garlands)	+	-	-	-	-	-
7	*Bhojanotara Snana* (Bathing after taking the meal)	+	-	-	-	-	-

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Table 03: *Manasikamaya Nidana* (Mental condition related causative factors) of *Medovaha Sroto Dushti*

No	***Manasika Nidana***	Ch.	Su.	A.S.	A.H.	MN.	B.P.
1	*Harshnityatvat* (Uninterrupted cheerfulness)	+	-	+	+	-	-
2	*Achintanat* (Lack of anxiety)	+	-	+	+	-	-
3	*Manasonivritti* (Relaxation from tension)	+	-	+	-	-	-
4	*Priyadarshana* (Observations of beloved things)	+	-	-	-	-	-
5	*Saukhyena*	-	-	-	+	-	-

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Table 4: Comparative Etiological Factors in *Medovaha Srotodushti* and NAFLD

Ayurvedic Concept	**Modern Equivalent**	**Pathophysiological Effect**
Guru and *Snigdha Ahara*	High-fat, high-carbohydrate diet	Adipose tissue expansion, insulin resistance
Avayama (lack of exercise)	Sedentary lifestyle	Reduced energy expenditure, weight gain
Kapha Prakriti	Genetic predisposition	Enhanced lipid storage capacity
Divasvapna (day sleep)	Metabolic syndrome components	Dysregulated circadian metabolism
Agnimandya	Impaired metabolic flexibility	Reduced mitochondrial β-oxidation

Table 05: *Samprapti Ghataka* of *Medovaha Sroto Dushti*

Dosha	*Tridosha (Kapha pradan) Kapha - Kledaka* *Pitta - Pachaka* *Vata - Samana, Vyana*
Dushya	*Meda Dhatu, Rasa*
Srotas	*Medovaha, Mamsavaha, Rasavaha*
Adhisthana	*Vapavahana* and *Medo dhara Kala (Sphik, Udar, Sthan)*
Srotodushti	*Sanga, Margavarodha (Cha. Su. 21/4), Amatah (Su. Su. 15/37)*
Udbhav	*Amashaya*
Agni	*Jatharagni janit, Dhatvagni Mandhyajanit*
Vyadhi Swabhava	*Daruna*
Sadyasadya	*Krichsadya, Asadya*

Table 06: Features of *Medovaha Sroto Dushti*

Rupa	**Ch.**	**Su.**	**A.S.**	**A.H.**	**M.N**	**B.P.**	**Y.R**
Chala Sphika, Udara, Stana (Abnormal movements of buttocks, abdomen, breast)	+	-	+	+	+	+	-
Ayatha Upachaya	+	-	+	-	+	+	-
Anutsaha (Less courage)	+	-	+	-	+	+	-
Ayushohrasa	+	-	-	-	-	+	-
Javopardha	+	-	-	-	-	+	-
Kriccha Vyavaya (Discourage for sexual activities)	+	-	-	-	-	-	+
Daurbalya (Weakness of Body)	+	-	+	-	-	-	-
Daurgandhya (Bad body odor)	+	+	+	-	+	+	+
Swedabadha (Irregular sweating)	+	-	-	-	-	-	+
Sukumarata (Lethargy)	+	+	-	-	-	-	-
Anga Shaithilya	+	+	-	-	+	+	-
Kshudra Shwasa (Difficult in breathing while working)	-	+	+	-	+	+	+
Nidradhikaya (Increased sleepiness)	-	+	+	-	+	+	+
Gatrasada	-	+	-	-	+	+	+
Gadgadvani	-	+	+	-	-	-	-
Krathana	-	+	-	-	+	+	+
Alpaprana (Weak vitals)	-	+	-	-	+	+	+
Sarvakriyasu Asamarthata (Discourage for all activities)	-	+	-	-	+	+	-
Alpavyavaya (Less sexual activities interest)	-	+	-	-	+	+	-
Kasa (Cough)	-	+	-	+	-	-	-
Shwasa (Difficult in breathing/ Shortness of breath)	-	+	+	-	-	-	-
Snigdhangata (Oily Body parts)	-	+	-	+	-	-	-
Udaraparshva Vriddhi (Larg belly)	-	+	-	+	+	+	-

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Table 07: *Ashtavidha pariksha* of *Medovaha Sroto Dushti*

Pariksha **(Examination)**	**Typical Findings in *Medovaha Dushti***	**Indicative *Doshic* Imbalance**
Nadi (Pulse)	Slow, deep, sluggish (*Manda*)	*Kapha Vriddhi*
Mootra (Urine)	Cloudy, oily, sticky, sweetish	*Kapha, Medas* in urine
Mala (Stool)	Oily, greasy, pale, constipated	Impaired Fat Digestion
Jihva (Tongue)	Thick, white, greasy coating, swollen	*Kapha, Ama*
Shabda (Voice)	Low, slow, heavy, muffled	*Kapha Vriddhi*
Sparsha (Touch)	Cold, oily, moist, doughy skin	*Kapha* Qualities
Drik (Eyes)	Dull, cloudy, xanthelasma	*Kapha, Meda* Deposition
Akruti (Build)	Obese, disproportionate, lethargic	*Meda Vriddhi*

Table 08: *Dashavidha pariksha* assessment of *Medovaha Sroto Dushti*

Factor (*Pariksha)*	**Characteristic Findings in *Medovaha Sroto Dushti***	**Clinical Implication**
Prakriti	Kapha or Kapha-Pitta predominant	Identifies inherent predisposition.
Vikriti	Kapha Vriddhi, Meda Dhatu Vriddhi, Ama	Confirms the pathological state and targets treatment.
Sara	Poor *Medasara* & *Mamsasara*	Indicates poor tissue quality and metabolic dysfunction
Samhanana	Loose, flabby, non-compact body	Shows lack of proper assimilation and structural weakness.
Pramana	Disproportionate body shape due to fat	Objectively measures the severity of fat distribution.
Satmya	Adapted to heavy, sweet, oily foods; sedentary life	Identifies causative lifestyle factors to be modified.

Satva	Tamasic, lethargic, low motivation	Crucial for planning counseling and adherence to therapy.
Ahara Shakti	Strong cravings but *Mandagni* (poor digestion)	Guides dietary prescription is light, easy-to-digest foods.
Vyayama Shakti	Very poor exercise tolerance	Indicates a very gradual and supervised exercise regimen.
Vaya	Common in childhood (Kapha age) but any age	Influences treatment strategy and prognosis.

Table 09: Elastography techniques in NAFLD diagnosis and their specificity

Test	**Special Feature**
Vibration-Controlled Transient Elastography (VCTE)	A specialized ultrasound that measures liver stiffness
Shear Wave Elastography	An advanced ultrasound technique to quantify tissue stiffness
Magnetic Resonance Elastography (MRE)	An MRI-based method considered highly accurate for quantifying liver fibrosis.

References

1. Kozłowska A. Clinical Insights into Non-Alcoholic Fatty Liver Disease and the Therapeutic Potential of Flavonoids: An Update. Nutrients. 2025 Mar 9;17(6):956. doi: 10.3390/nu17060956. PMID: 40289935; PMCID: PMC11944923.
2. R Vaidyanath. illustrated caraka samhita (English translation with cakrapani commentary). 2nd ed. Vol. I. Varanasi: Chhaukambha Prakashan; 2023.
3. View of An Ayurvedic Perspective of Nonalcoholic Fatty Liver Disease | Journal of Ayurveda and Integrated Medical Sciences [Internet]. Jaims.in. 2025 [cited 2025 Nov 10]. Available from: https://jaims.in/jaims/article/view/4354/7319
4. Caraka Samhita of Maharsi Agnivesa part 1st, Editor and Commentator Dr.Lakshmidhar Dwivedi, Edition 9th 2005, Chaukhambha Orientalia, Sutra sthana Chapter 21, Page- 401
5. Susruta Samhita of Maharsi -Susruta by Kaviraja Ambikadutta Shastri, Part 1st Chaukhambha, Sanskrit Sansthan, Varanasi, Reprint Edition-2015, Sutraasthana chapter 15, page- 81.

6. Astanga Sangraha of Vagbhata, Vol 1st, translated by Prof. K.R.Srikantha Murthy, Chaukhambha Orientalia, Varanasi, Edition: 2005, Sutrasthana chapter 24, page- 424.
7. Astanga Hrdayam of Srimadvagbhata by Brahmanand Tripathi, Chaukhambha Orientalia, Varanasi, Reprint Edition: 2015, Sutrasthana Chapter 14.
8. Madhava- Nidanam of Madhavakara by Prof. Yadunandana Upadhyaya, Part 2nd Chaukhambha Prakashan Varanasi, Reprint Edition 2016, page 34-35.
9. Bhavaprakasa of Sri Bhamisra by Pandit Sri Brahma Sankara Misra vol 2nd, Reprint Edition- 2015, Chaukhambha Sanskrit Sansthan, Varanasi, Chapter 39, page- 405
10. Huh Y, Cho YJ, Nam GE. Recent Epidemiology and Risk Factors of Nonalcoholic Fatty Liver Disease. J Obes Metab Syndr. 2022 Mar 30;31(1):17-27. doi: 10.7570/jomes22021. PMID: 35332111; PMCID: PMC8987457.
11. Pooja Hui, Sonalika Jena, Snehamayee Mishra. Conceptual study of Non-Alcoholic Fatty Liver Disease and its management in Ayurveda. J Ayurveda Integr Med Sci 2024; 8:53-59. http://dx.doi.org/10.21760/jaims.9.8.8
12. Dowman JK, Tomlinson JW, Newsome PN. Pathogenesis of non-alcoholic fatty liver disease. QJM. 2010 Feb;103(2):71-83. doi: 10.1093/qjmed/hcp158. Epub 2009 Nov 13. PMID: 19914930; PMCID: PMC2810391.
13. Yog Ratnakara, Edited by Bhisagratna Brahmasankar Sastri, Chaukhambha Prakashan, Reprint Edition 2012, Medorognidan Page-98.
14. NIDDK. Diagnosis of NAFLD & NASH | NIDDK [Internet]. National Institute of Diabetes and Digestive and Kidney Diseases. 2021. Available from: https://www.niddk.nih.gov/health-information/liver-disease/nafld-nash/diagnosis
15. Dr J V Hebbar MD(Ayu. Medovaha Srotas Description, Vitiation Symptoms, Treatment [Internet]. Easy Ayurveda Hospital. 2021. Available from: https://www.easyayurveda.com/2021/08/05/medovaha-srotas/
16. 1.Operational Guidelines for Non-alcoholic Fatty Liver Disease under National Programme for Prevention and Control of Non- communicable Diseases Operational Guidelines for Non-alcoholic Fatty Liver Disease under National Programme for Prevention and Control of Non-Communicable Diseases (Version 2.0) [Internet]. Available from: https://mohfw.gov.in/sites/default/files/Operational%20Guidelines%20for%20NALFD%20Version%2020.pdf