



ANUSHLAYA KARMA IN THE MANAGEMENT OF FATTY LIVER DISEASE – A CASE REPORT

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ABSTRACT

Background: Fatty liver is one of lifestyle diseases, though it is reversible. Fatty liver, which can be correlated to *Yakrit-vikara* of ancient science, Acharya Sushruta has mentioned *Siravyadhana* at *Dakshina Kurpara Sandhi*. **Materials and methods:** A case study on 51 years old male with complaints of distension of abdomen, decreased appetite, burning sensation in the epigastric region, fatigue since one year. Diagnosed with Grade 2 fatty liver was treated with four sittings of *Siravyadha* at *Dakshina Kurpara Sandhi*, which was done at intervals of 7 days, and follow-up was taken after 15 days on completion of the treatment. **Result & conclusion:** U.S.G. Abdomen was repeated after 15 days and showed encouraging results and improved liver grade; symptomatic improvement was also seen. This case report helps to know the efficacy of *Siravyadhana* as *Ardachikitsa* in *Shalya Tantra* and reaffirms the classical reference on specific sites of *Raktamokshana* in *Yakrit-Viikara* and other specific clinical condition.

Keywords: Fatty Liver disease, *Yakrut-vikara*, *Siravyadhana*, *Ardachikitsa*.

INTRODUCTION

The liver is responsible for various functions that support metabolism, digestion, immunity, detoxification, and vitamin storage and is involved in almost all biochemical pathways. The liver is the storage location for fat-soluble vitamins and the emulsification of fat, and it handles cholesterol homeostasis. Fatty liver disease is one of the hepatic appearances of metabolic syndrome, characterised by progressive hepatocellular injury. If neglected, it can ultimately lead to liver cirrhosis and hepatocellular carcinoma, which are the cause of liver-related morbidity and mortality.

The overall prevalence of fatty liver disease worldwide was estimated to be 37.8%. The prevalence of fatty liver disease among the general population in India ranges from 9% to 53%^[1], with higher in urban communities 53.7% in comparison with rural communities 30.2%.^[2]

Etiology and symptomatology of *Yakrit Vikara*, explained by *Ayurveda Acharyas*, can be correlated to

liver pathology, that fatty liver disease can be interpreted as a *Santarpanotha Vikara* caused by *Kaphameda dushti*, getting *Sthanasamshraya* in *Yakrit*. In Fatty liver disease, no pharmacological agent is established as a standard treatment, so lifestyle modification is a single option for such patients.

However, Acharya Sushruta said that the *Siravyadhana*, i.e., a type of *Raktamokshana* at *Dakshina Kurpara sandhi*, is a therapy for *Yakrit-vikara*.^[3]

Modern science also supports the treatment of phlebotomy for some liver diseases, but the exact site has yet to be mentioned. Through this case study, a novel attempt has been made to study the efficacy of *Siravyadhana* in managing fatty liver disease. This clinical study supports the quote *Raktamokshana*, one among the *Anushalya karma*, and *Siravyadhana* is considered *Ardhachikitsa*.^[4]

Case Report

Demographic data as of Table 01

Table:01 – Demographic data of the patient

Name	XYZ
Sex	Male
Age	51 years
Occupation	Driver
Marital status	Married
Education	PUC
Socio-economic status	Middle class
OPD No	23011125

Chief Complaint

The patient presented with complaints of distension of the abdomen, burning sensation in the epigastric region after intake of heavy meals, sour belching, reduced appetite and fatigue since one and a half years.

History of present illness:

The patient was average one and a half years back, but he gradually developed the above complaints for which he took conservative treatment; during the treatment, the patient did not find satisfactory relief.

Past Medical History: N/K/C/O DM, HTN and Thyroid dysfunction.

Surgical History: Has not undergone any surgeries

Family History: Nothing contributory

Personal history:

- ✓ Diet – Mixed diet, excess spicy, oily and fatty food intake, non-vegetarian food 4 days a week.
- ✓ Appetite – Decreased
- ✓ Bowel – Constipated
- ✓ Sleep – Interrupted due to abdomen discomfort
- ✓ Micturition – Normal

- ✓ Habits – Alcohol for ten years, Tobacco chewing for ten years

General Physical examination:

- The patient was obese with endomorphic body type.
- Weight: 91kgs, Height:168cms, BMI: 33.7
- PICCLE – Absent
- Vital Signs:
 - ✓ Temperature: Normal body temperature
 - ✓ Pulse rate: 86bpm (Right radial artery pulse was examined)
 - ✓ Respiratory rate: 19 cycles per minute
 - ✓ BP: 140/80mmHg

Systemic examination

- **CVS** – S1 S2 Heard, Apex beat at left 5th intercostal space at midclavicular line, no murmurs heard
- **RS** – Normal Vesicular breath sounds heard, AEBE
- **CNS** – Conscious and oriented to time, place and person, all his higher mental functions are normal, Muscle tone and power are expected, and Tendon reflexes are normal.

Local Examination - Per abdomen examination

- Distended abdomen
- No abnormal findings, such as Ascites/Splenomegaly, were noted

- Tenderness present at Right Hypochondriac and epigastric region on deep palpation
- Percussion: Resonant all over four quadrants and dullness at the liver border
- Auscultation: Active bowel sounds heard.

Investigations as of 12/10/2023

- SGOT: 27.0 IU/L, SGPT: 47.0 IU/L
- USG Abdomen: Diffuse Fatty infiltration of liver – Grade 2; increase in echotexture is noted
- All other blood parameters were within the normal range

Diagnosis:

Yakridalyudara – Fatty Liver Disease

Intervention details:

- Four sittings of *Siravyadhana* were done at *Dakshina kurpara sandhi* (right cubital fossa) of the patient seven days after *Sthanika abhyanga* and *Sthanika pata sweda*.
- Approximately 80-100ml bloodletting was done.
- Simultaneously, 500mg *Katuki churna* capsules were given in doses of 2 TID with warm water /Buttermilk/Honey and lifestyle modification, including exercise with dietary regimes, was also advised.
- The follow up was taken after 15 days and assessed based on subjective and objective parameters.
- Timeline of treatment (table: 02)

Table: 02 - Timeline of treatment

Date	Symptoms	Treatment given
12/10/2023	<ul style="list-style-type: none"> • <i>Udardhmana</i> (Abdomen distension and Discomfort) • <i>Hrit Kantha daha</i> (Burning sensation in epigastric region) • <i>Agnimandya</i> (Decreased appetite) • <i>Klama</i> (Fatigue) • Sour belching <p>USG Abdomen: Diffuse fatty changes Grade 2, increased echotexture was noted</p>	History noted Complete evaluation of patient done
13/10/2023	Same as above	1st sitting of <i>Siravyadhana</i> at <i>Dakshina kurpara sandhi</i> (Approx. 80ml bloodletting done) 500mg <i>Katuki churna</i> 2 TID with warm water

		Advised lifestyle modification and dietary changes
20/10/2023	20% reduction in above complaints	2nd sitting of <i>Siravyadhana</i> at <i>Dakshina kurpara sandhi</i> (Approx. 85ml blood-letting done) 500mg <i>Katuki churna</i> 2 TID with warm water Advised lifestyle modification and dietary changes
27/10/2023	60% reduction in above complaints	3rd sitting of <i>Siravyadhana</i> at <i>Dakshina kurpara sandhi</i> (Approx. 100ml blood-letting done) 500mg <i>Katuki churna</i> 2 TID with warm water Advised lifestyle modification and dietary changes
03/11/2023	90% reduction in above complaints	4th sitting of <i>Siravyadhana</i> at <i>Dakshina kurpara sandhi</i> (Approx. 100 ml blood-letting done) 500mg <i>Katuki churna</i> 2 TID with warm water Advised lifestyle modification and dietary changes
18/11/2023 (15 days follow up)	Symptomatically free Follow USG Abdomen revealed – Fatty liver Changes Grade 1 with normal liver size	Advised lifestyle modification and dietary changes

Result and observation

- After 28 days of treatment and follow-up on 15th day, the patient was assessed for clinical features, and USG was repeated.
- After four sittings of *Siravyadhana*, Diffuse fatty changes in liver-Grade 2 with increased liver echotexture were turned into Grade 1 fatty changes and average liver size. Fig: 01 and 02.
- After this treatment, the patient became symptom-free, and SGOT and SGPT levels also got normal.

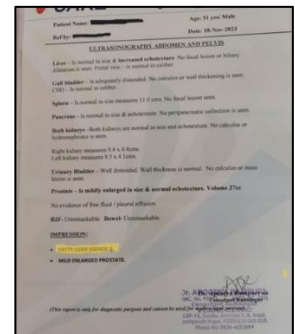
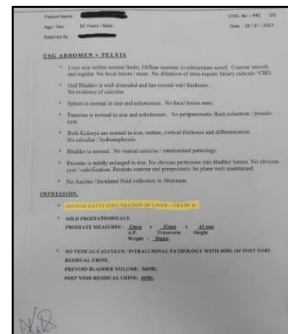


Fig:01 Before Treatment Fig:02 After Treatment

DISCUSSION

Effect of *Siravyadhana*, i.e., bloodletting in Fatty liver disease, can be justified as follows: Hyperferritinemia is frequently observed in persons with chronic liver disease, especially in FLD, due to iron deposition in the liver, and it often induces insulin resistance and triggers grade of liver injury. Hyper-

ferritinemia occurs in approximately one-third of patients with FLD, and it is primarily responsible for further hepatic fibrosis due to enhanced oxidative stress in the liver tissues.^[5,6] *Siravyadhana* may reduce these ferritin levels by evacuating blood from the body and avoiding such types of injury severity to liver tissues. Moreover, it also decreases elevated liver enzymes, oxidative stress, and necrosis, reducing apoptosis and improving liver health. It avoids further liver damage and fibrotic changes by reducing such oxidative stress. *Yakrut* is the *Moola sthana* of *Rakta vaha srotas*; by eliminating the *dushita rakta* or by doing the *raktamokshana* by *Siravyadhana* procedure helps in the regeneration of liver cells and gives the environment for *Yakrut* to produce the *Prakruta rakta* at its *sthana* and in turn avoids *Utta-rottara dhatu dushti*. Acharya Sushruta considers *Siravyadha* as *Ardhachikitsa* in his classical texts by giving more importance to *Rakta* and considers *Dushita rakta* as *karana* for *dhatu vrudhi* and *kshaya*,^[7] hence *Siravyadha/Raktamokshana* helps in tackling the disease.

CONCLUSION

This case report reaffirms the classical reference of the specific site of *Raktamokshana* in a particular clinical condition as a retrospective study. The case reports are also helpful in showing the efficacy of the *Siravyadhana* in managing fatty liver disease without causing any undue event. It also enhances the beneficial effect of lifestyle modification within a shorter duration. *Raktamokshana*, due to its Anti-Hyperferritinemic and antioxidant effects, helps regenerate liver cells, replacing the fatty cells and avoiding further liver damage. Hence, *Raktamokshana* is among the *Anushalya karma*, and *Siravyadha*, considered *Ardhachikitsa*, helps treat the

disease promptly and without adverse effects if done effectively and with full knowledge.

INFORMED CONSENT: Informed consent was obtained from the patient before the commencement of the treatment.

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