Daily Therapeutic Purgation (DTP) Treatment with Herbomineral Preparations in a case of Ascites due to Non-alcoholic Fatty Liver Disease (NAFLD) Cirrhosis – A Case Report

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1. Abstract

3a. Ascites is the most common indicator of liver damage, and liver disease is the most common cause of it. The accumulation of fluid in the peritoneum is called ascites. Although severe drinking over an extended period of time frequently leads to liver cirrhosis, in this case there was no previous history of alcohol consumption. Lifestyle decisions may be the main factor. The only ascites therapy that is now available for non-alcoholic fatty liver disease (NAFLD) cirrhosis is brief alleviation with time-dependent recurrence. Ayurveda interventions, such Daily Therapeutic Purgation (DTP) with Herbomineral Preparations, provide quick and long-lasting relief from ascites symptoms. This demonstrates how successful DTP use is in treating this condition.

3b. A 50-year-old male patient was admitted to our hospital with symptoms of icterus, bilateral pedal edema, generalized weakness, and abdominal distention. He was later diagnosed with ascites from nonalcoholic fatty liver disease (NAFLD) cirrhosis.

3c The patient received both OPD and IPD treatment using an integrated Ayurveda approach. Ayurveda medicine prescribes DTP in conjunction with specific herbomineral formulations.

Significant improvements in examinations, a decrease in pedal edema, a rise in appetite, an increase in strength, reduction in abdomen circumference and changes in ultra sonography findings before and after treatment were all noted as noteworthy outcomes. .This study suggests that ayurveda principles can be used to successfully treat ascites resulting from NAFLD cirrhosis.

2. **Key words :** Ascites; Daily Therapeutic Purgation; Non Alcoholic Fatty Liver Disease Cirrhosis

3. Introduction

Globally, non-alcoholic fatty liver disease, or NAFLD, is quickly overtaking all other liver diseases in prevalence. In western countries, NAFLD affects 20–30% of the general population. Non-alcoholic steatohepatitis (NASH), which can lead to liver cirrhosis and hepatocarcinoma, is thought to affect 2–3% of the general population. The diagnosis method, population factors, particularly lifestyle behaviors, and age all have an impact on the prevalence of non-alcoholic fatty liver disease (NAFLD), which is higher in men. A buildup of fluid in the peritoneal cavity greater than 25 milliliters is known as ascites [1]. Severe liver disease and cirrhosis are two conditions that frequently result in ascites.[2] This case is special since there is little success treating NAFLD cirrhosis with traditional therapy; yet, ayurveda treatments have produced noteworthy outcomes. One may consider ascites in Ayurveda is under Udararoga's vast category, ailments of the abdomen.[3] The Prakupita (aggravated) Vata, which is one of the three bodily Doshas and the vital biological force responsible for all motor activities, sensory perceptions, and higher mental activities, accumulates in the Udara (abdominal cavity) between the Twaka (skin) and Mamsa Dhatu (one of the seven Dhatus / muscle tissue) among Tridosha, causing Shotha (swelling); this condition is known as Udararoga.[4]Vata is one of the primary causes of Udararoga's appearance.[5]

In addition to this, Manda Agni, or a diminished digestive fire, is the cause of Udararoga.[6] Stated differently, Udararoga is caused by Dushta (vitiated) Rasa Dhatu (the first of the seven Dhatus, dominated by Jala, which means water element and has the primary function of Preenan, or nutrition), which arises from Koshtha (gastrointestinal tract and abdominal organs) and Grahani (duodenum), which accumulates in Udara. The individual in question had a tendency of consuming hot food (atiushna), salty food (lavan), alkaline food (Kshar), burning food (Vidahi), sour food (amla sevan), midday sleep (diwaswap), and Vega Vidharan (suppression of natural desires).[7]In Ayurvedic medicine, DTP is a specific treatment designed to eliminate blockages and reduce fluid collection. [8] Its laxative and diuretic properties aid in the body's elimination of extra fluid.

4. Patient Information

a. On January 17, 2022, a male patient in his 50s who was 5 feet 8 inches tall, weighed about 73 kg, had a protruding abdomen, and belonged to a moderate socioeconomic class was brought by family members to our hospital's outdoor patient department. He worked as a grocery store owner and regularly ate salty, spicy, and greasy snacks that were sold there.

b. Increased belly circumference, pitting oedema over both feet with a blackish discoloration, decreased appetite, body-wide itching, jaundice, and dyspnea from exertion since one year ago were the symptoms that were present. After six months, there has been general weakness and, as of one week, stomach ache.
c. Medical history: not noteworthy; no history of alcohol use, diabetes, hypertension, IHD, or other serious systemic illnesses; thirty years ago, he underwent an appendicectomy. Psycho-social history, including pertinent genetic information, is non-significant, as is family history.

d**.** The patient received minimal alleviation from an outside consultant's allopathic treatment for almost eight months.
T. Udiliv 300 mg 1 BID T. Dytor plus 1 OD
T. Atarax 1 HS Syr: Lactihep 20 ml HS T. Cardivas3 125 1 OD

5. Significant physical examination (PE) and important clinical findings.

On Examination:-
B.P. of 110/80 mm of Hg; pulse rate: 85/min, the weight is 73 kg.
Pallor:++ Icterus:++
RS – AEBE Clear, no extra sounds
CVS- S1S2 regular, CNS - Conscious and focused, normal
Abdominal girth : 97 cm above umbilicus, 99 cm at umbilical level, 99 cm below umbilicus
P/A- Examined: big abdomen with umbilical hernia, fullness in the flanks, everted and displaced Umbilicus, blackish discoloration on the sclera and nails, and edema in the feet.
Palpation: There is a slight discomfort when lightly pressing the umbilical region; the liver and spleen are not palpable.
Sound of percussion: a dull sound in the supine flanks. A shifting dullness prevailed. There was fluid thrill.
Normal bowel noises are audible during auscultation. The patient's diagnosis of Jalodar was made based on signs, symptoms, and examinations.(NAFLD Cirrhosis-Related Ascites)

Table 1: Timeline – Disease symptoms, Diagnosis and Treatment course summaries

Date	**Symptoms**	**Examination Findings**	**Medicines given and diet advised**
06.04.22 to 08.04.22	Patient admitted in IPD with complaints of increased abdominal girth, abdominal heaviness, pitting oedema over both feet with blackish discolouration, decreased appetite, itching all over body, jaundice, dyspnoea due to exertion, generalized weakness and abdominal	P – 80/min, BP – 120/80 mmHg, Weight – 77kg, Abdomibal circumference (AC), Above Umbilicus – 114cm, Umbilicus-113cm, below umbilicus -109cm	1. *Trivrut Awaleha 1*5gm with 100ml decoction of *Triphala* and *Kutki* given. Diet – only cow milk

	pain Stool – less quantity 1-2 times/day Urine – less quantity 1-2 times/day CBC,Urine R, LFT, Sr. creatinine were advised.		
09.04.22	Increased abdominal girth , Abdominal heaviness reduced by 25%, Pitting oedema over both feet, loss of appetite, jaundice, Ayasjanita Shwasa. Dourbalya, Udarshool reduced by 75% Udarkandu. Mala – Drava 6 times/day Mutra – Peeta 5-6 times/day	P – 74/min, BP – 130/70 mmHg, Weight – 75.4kg, Abdomibal circumference (AC), Above Umbilicus – 108cm, Umbilicus-110cm, below umbilicus -109cm	1. Trivrut Awaleha 15gm with 100ml decoction of Triphala and Kutki given. Diet – only cow milk
11.04.22 to 17.04.22	Increased abdominal girth, pitting oedema over both feet with blackish discolouration, decreased appetite, itching all over body, jaundice, dyspnoea due to exertion, generalized weakness and abdominal pain Stool– liquid 2 times/day Urine – yellow 2-3 times/day	P – 74/min, BP – 100/60 mmHg, Weight – 74.4kg, Abdomibal circumference (AC), Above Umbilicus – 108cm, Umbilicus-109cm, below umbilicus -106cm	same continued same continued
18.04.22 to 21.04.22	Abdominal girth reduced. Abdominal heaviness, oedema over feet reduced. Appetite increased, Yellow discoloration of sclera,nails, urine and stool decreased, dyspnoea due to exertion, generalized weakness reduced. abdominal pain reduced.	P – 80/min, BP – 110/60 mmHg, Weight – 67.8kg, Abdomibal circumference (AC), Above Umbilicus – 103cm, Umbilicus-104cm, below umbilicus -99cm	same continued

	Pruritus over abdomen still present. Stool – liquid 2 times/day Urine – yellow 2-3 times/day		
22.04.22 to 28.04.22	Patient was stable with reduction in the signs and symptoms. He complained evening rising temperature. Stool – liquid 2 times/day Urine – yellow 2-3 times/day	P – 78/min, BP – 110/70 mmHg, Weight – 64.2kg, Abdomibal circumference (AC), Above Umbilicus – 97cm, Umbilicus- 99cm, below umbilicus -95cm T^oF – 98.7^oF	same continued
29.04.22. to 04.05.22	There was significant relief in the signs and symptoms of the patient. Abdominal girth and oedema was reduced. Anorexia was also reduced. c/o /Gum bleeding since today morning. Stool – liquid 3 times/day Urine – pale yellow 3-4 times/day	P – 78/min, BP – 100/60 mmHg, Weight – 61.3kg, Abdomibal circumference (AC), Above Umbilicus – 92cm, Umbilicus- 95cm, below umbilicus -89cm T^oF – 97^oF	Same continued
12.05.22 to 19.05.22	General weakness was increased. Other symptoms were reduced. Stool – liquid 3 times/day Urine – pale yellow 2-3 times/day	P – 80/min, BP – 100/60 mmHg, Weight – 58.6kg, Abdomibal circumference (AC), Above Umbilicus – 87cm, Umbilicus- 87cm, below umbilicus -84cm T^oF – 97^oF	Same continued
20.05.22 to 25.05.22	There was significant relief in the signs and symptoms of the patient. Patient was stable and General weakness was also reduced. Stool – liquid 2 times/day Urine – pale yellow 2-3 times/day	P – 80/min, BP – 100/60 mmHg, Weight – 59.9kg, Abdomibal circumference (AC), Above Umbilicus – 89cm, Umbilicus- 89cm, below umbilicus -84cm T^oF – 97^oF	Same continued

26.05.22	Itching over abdominal wall was increased.		Same continued
29.05.22	Significant reduction in the signs and symptoms was observed.		Same continued
30.05.22	Patient was stable.		Same continued
11.06.22	Patient was comfortable with relief in the signs and symptoms. Urine output was good.	P – 80/min, BP – 100/60 mmHg, Weight – 59kg, Abdomibal circumference (AC), Above Umbilicus – 83cm, Umbilicus- 84cm, below umbilicus -80cm T^oF – 97^oF	1.*Trivrut Awaleha* 25gm with 100ml decoction of *Triphala* and *Kutki* given. Diet – only cow milk
16.06.22	All signs and symptoms were significantly reduced. General weakness was still present	P – 80/min, BP – 100/60 mmHg, Weight – 59.4kg, Abdomibal circumference (AC), Above Umbilicus – 84cm, Umbilicus- 85cm, below umbilicus -82cm	1.*Trivrut Awaleha* 15gm with 100ml decoction of *Triphala* and *Kutki* given. Diet – only cow milk
17.06.22 to 28.06.22			Same continued
21.06.22	All symptoms were reduced significantly		Same continued
27.06.22	All symptoms were reduced significantly	P – 78/min, BP – 120/80 mmHg, Weight – 57.5kg, Abdomibal circumference (AC), Above Umbilicus – 84cm, Umbilicus- 85cm, below umbilicus -80cm	Same continued

29.06.22	All symptoms were reduced significantly. Patient was stable. He was discharged from IPD and treatment was given on discharge. He was asked to follow up after 15 days.	P – 78/min, BP – 110/70 mmHg, Weight 58.7kg, Abdomibal circumference (AC), Above Umbilicus – 85cm, Umbilicus- 84cm, below umbilicus -81cm	1. *Virechana Choorna* 5gm at bedtime Diet – Only cow buttermilk
12.07.22	Patient attended OPD He was stable. H/O 1 episode of vomiting yesterday.	P – 84/min BP – 100/70mm of Hg Weight – 57.92kg	Same continued
22.07.22	Patient came for follow up. He was stable.	P – 85/min BP – 100/60mm of Hg Weight – 58.4 kg	Same continued
18.08.22	No fresh complaints.	P – 70/min BP – 110/70mm of Hg Weight – 59.8 kg	Same continued
19.09.22	Previous symptoms were relieved.	P – 80/min BP – 100/60mm of Hg Weight – 61 kg	Same continued
17.10.22	Patient attended OPD with maximum relief in total symptoms. Only itching over abdomen got 20% relief.	P – 88/min BP – 120/80mm of Hg Weight – 58.3 kg Abdominal circumference (AC), Above Umbilicus – 84cm, Umbilicus- 86cm, below umbilicus -84cm	Same continued

6. a. Diagnostic Assessment

PE

Abdominal girth: Above umbilicus – 97cm, Umbilical level – 99cm, below umbilicus – 99cm
P/A-Inspection – abdomen enlarged with umbilical hernia, fullness in flanks,
umbilicus everted, displaced downwards, blackish discolouration to nails, sclera, Pedal edema.

Palpation - mild pain in umbilical region on superficial palpation, liver, spleen were not palpable.
Percussion – dull note in the flanks in supine position. Shifting dullness and fluid thrill was present.
Auscultation – normal bowel sounds heard.
On the basis of signs, symptoms &examinations patient was diagnosed with *Jalodar*.(Ascites due to NAFLD Cirrhosis)

Patient was admitted in IPD from 06.04.22 to 29.06.22. After that he was discharged from hospital and treated in OPD from 30.06.22 to 17.10.22

8b. **Diagnostic Challenges** – Nil
8c. **Diagnosis**
Final Diagnosis - Ascites due to Non Alcoholic Fatty Liver Disease (NAFLD) Cirrhosis

9. Types of Therapeutic Intervention

a. Pharmacological

Administration of DTP as main intervention with ayurvedic herbomineral preparations was administered. Patient was kept on Cow Milk for 03 months and on Buttermilk for 03 months. During whole period of treatment (IPD period 06/04/22 to 29/06/22 and OPD period 29/06/22 to 17/10/22) intake of water was prohibited except small amount needed with medicines.

9b. Administration of DTP with duration

Table 2: Timeline - Administration of DTP with duration

Date	Sr.no	Medicine	Dosage	(Anupan)Vehicle	Dietary suppliment
09.04.22 to 10.06.22	1	*Trivrut Awaleha*	15gm 100ml early in the morning with empty stomach	decoction of *Triphala* and *Kutki*	Cow milk 1-2litre daily
11.06.22 to 15.06.22	4	*Trivrut Awaleha*	25gm 100ml early in the morning with empty stomach	decoction of *Triphala* and *Kutki*	Cow milk 1-2 litre daily
16.06.22 to 29.06.22	5	*Trivrut Awaleha*	10gm 100ml early in the	decoction of *Triphala*	Cow milk 1-2 litre daily

			morning with empty stomach		
30.06..22 to 17.10.22	6	*Virechan Choorna*	5gm at bed time	Luke warm water	Cow Butter milk 1-2 litre daily

1. *Trivrit Avaleha* is a *Leha Kalpana*. (When Kwatha -decoction etc. are reboiled to thick or solid consistency it is known as *Rasakriya*. The same is known *as Leha, Avaleha*.)

   It has contents like *Trivrit, Trijata (Cinnamomum tamala (Buch.-Ham.) T. Nees &*

   Eberm., Cinnamomum verum J.Presl ., Elettaria cadamomum (L.) Maton.), Honey and Sugar.

2. Decoction is prepared by adding 16 parts of water with 1 part of raw/coarse powder of medicinal plant, heated on low flame and remained 1/8th, 1/4th or 1/4th. Consumed when it is cooled to lukewarm.

3. *Virechana Choorna* is a propriatory medicine prepared by our local hospital pharmacy which is prepared by mixing fine powders of 02 parts of *Casia angustifolia Vahl, Terminalia chebuli (Retz)* each, 01 part of *Zinziber officinale Roscoe,* and ½ part of rock salt.

10. Follow-up and outcomes

a. Clinician assessed outcomes

Table 3: Clinician assessed outcome /MEASUREMENTS (During Treatment)

Date/ Measurements	Girth at Umbilicus in cm	Xiphi to umbilicus in cm	Umbilicus to pubis in cm	Spinoumbilical dist Rt/Lt in cm	Weight in kg
6/4/2022	113	29	24	22	77
16/4/2022	105	24.5	19.5	22	69.9
26/4/2022	95	24	19	21	62.9
6/5/2022	92	23	18	20	59.9
16/5/2022	87	21	18	20	59.2
26/5/2022	85	21	18	20	59
6/6/2022	85	21	18	20	59
16/6/2022	85	21	18	20	59.4
29/6/2022	84	21	18	20	58.7
15/10/2022	86	21	18	20	58.3

b. Important follow-up diagnostic and other test results

Table 4: USG (Abdomen and Pelvis) changes BT/AT

RL - Right Lobe, LL - Left Lobe, cm – centimeter, mm – millimeter, HTN - Hypertension

Date	Liver	Spleenomegaly	Elastography value	Ascites	Gall bladder
12.11.22	Shrunken (RL 107cm, LL 69cm) Cirrhosis with portal HTN	Moderate (148mm)	Vs=2.79m/s	Moderate to gross	Partially distended, moderate wall oedema (5.4mm)
08.04.22	Shrunken (RL 98cm, LL 87cm) Cirrhosis with portal HTN	Moderate (148mm)	Vs=2.70m/s	Moderate to gross	Partially distended, moderate wall oedema (7.3mm)
17.10.22	Shrunken (RL 114cm, LL 63cm) Cirrhosis with portal HTN	Mild(130mm)	Vs=3.08m/s	Mild	Partially distended, minimal wall oedema(3.6mm)

Table 5: Pathological investigations changes (total)

mcL – microliter, mm^3 – cubic millimeter, Hb – Haemoglobin, gm – gram, dl – deciliters, U/L – Units per Liiter, IU/L – International Units per Liter

Investigations /Date	6/4/2022	17/05/2022	21/06/2022	15/10/2022
RBC million per microliter (cells/mcL)	2.88	2.82	2.31	2.39
WBC $10^3/mm^3$	0.18	0.18	0.17	2.4
PLATELET 10^5 per mm^3	1.21	1.09	1.03	0.89
Hb% gm/dl	8.2	8.9	7.9	7.7
Total bilirubin mg/dl	3.2	2.7	1.7	1.2
Direct	1.1	0.9	0.5	0.4
Indirect	2.1	1.8	1.2	0.8
SGPT 10^1U/L	3.6	2.4	3.7	2.1
SGOT 10^1 U/L	8	18.1	4.5	3.5
Total protein gm/dl	6.5	6.8	7.5	6.7
Alkaline phosphatase 10^1IU/L	8.9	11.5	12	9.3

Table 6: CBC (During Treatment)

DATE	RBC million per microliter (cells/mcL)	WBC $10^3/mm^3$	PLATELET per mm^3	Hb% gm/dl
6/4/2022	2.88	1800	121000	8.2
26/4/2022	2.86	2200	124000	9.0
17/5/2022	2.82	1800	109000	8.9
21/06/2022	2.31	1700	103000	7.9
15/10/2022	2.39	2400	89000	7.7

Table 7: LFT (During Treatment)

ND - Not Done

Date	Total bilirubin mg/dl	Direct mg/dl	Indirect mg/dl	SGPT U/L	SGOT U/L	Total protein gm/dl	Alkaline phosphatase IU/L
27/12/21	3.2	1.1	2.10	60	30	7.4	187
7/4/2022	3.2	1.1	2.10	36	80	6.5	89
27/4/2022	1.3	0.21	1.09	21	135	7.3	107
17/5/2022	2.7	0.9	1.80	24	181	6.8	115
04/06/2022	2.8	0.8	2.00	ND	ND	ND	ND
23/06/2022	1.7	0.5	1.20	37	45	7.5	120
17/10/2022	1.2	0.4	0.80	21	35	6.7	93

Table 8: URINE EXAMINATION (BT/AT)

BT – Before treatment, AT – After treatment, hpf – high power field

Date	Bile salt	Bile pigment	Pus cells	Epithelial cell
7/4/2022	Present	Present	1-2/hpf	6/8/hpf
17/10/2022	Nil	Nil	Occasional	4-6/hpf

c. Intervention adherence and tolerability

Patient strictly followed the treatment schedule and adhered to the total treatment plan throughout the duration. He tolerated the procedures and drugs which were given to him during this study. He was hemodynamically stable with moderate strength. Assessment was done with Pulse, Blood Pressure, Cardiorespiratory examination and daily activities during hospitalization.

d. Adverse and unanticipated events

No any adverse and unanticipated event was observed during this treatment plan.

11. Discussion

a A scientific discussion of the strengths AND limitations associated with this case report

There is significant change in the findings of USG after treatment with reference to reduction in spleen size, ascitic fluid, gall bladder wall thickness; we could give relief with respect to sign and symptoms, reduction in ascitic fluid and body weight, improvement in quality of life to the patient. There was significant change found in the values of liver function tests; bilirubin, SGOT, SGPT, Alkaline phosphatase and serum Proteins after treatment.

b Discussion of the relevant medical literature with references

Discussion on causes of ascites

According to Ayurvedic texts, in the present case, the patient had low digestive fire, over eating without considering appetite, very hot, salty, spicy, acidic food, taking dry and impure diet and suppression of natural urges.[7]

Discussion on treatment of acites

Ayurveda prescribes *nityavirechana* (DTP) as a main treatment. When DTP is done time to time with *Trivrut Avaleha* (herbomineral preparation of Trivrit (*Operculina turpethum (L.)*[14] *Silva Manso)* ,Tamalpatra (*Cinnamomum tamala (Buch.-Ham.)T.Nees & Eberm., Cinnamomum zeylanicum verum J.Presl*[15,16]., *Ellettaria cardamomum (L.) Maton.*[17], honey and sugar) [9], *Triphala* (combination of , *Emblica officinalis (Gaertn.)*[18], *Terminalia chebuli(Retz)*[19]., *Terminalia belerica Gaertner) Roxb.*)[20], and *Kutki* (*Picrorhiza kurrooa Royle ex Benth*)[11] decoction and *Virechana Choorna* (powder of combination of *Casia angustifolia Vahl*,[21] *Terminalia chebuli (Retz)Zinziber officinale Roscoe*[22], and rock salt)[12] inappropriate *Jatharagni* (digestive fire) and *dhatvagni* (seven types of *agni* responsible for transformation of one *Dhatu* into another.) are corrected and the levels of these *Agni* rise[13], Also drugs in DTP have cholagogue, hepatoprotective, and stimulating effects on the liver. All preparations used have a laxative effect that aids in removing toxins from the body that are accumulated due to prolonged constipation in ascites. As a result, it is helpful in ascites and widespread edema. DTP is required to disperse the stagnation of all *Doshas* (principle constituents of the body that is responsible for homeostasis) [23] and retained fluid and separate them. Main organ responsible for formation of *Pitta Dosha* (one of the three bodily *Doshas* whose function if digestion and metabolism) and *Rakta Dhatu* (second *Dhatu* among seven *Dhatus* whose function is *Jeevana* – to give life) is the liver. Purgation is the most effective treatment for vitiated *Pitta Dosha* and purification of *Rakta Dhatu*.. DTP also reduces edema and abdominal girth by reducing fluid in the peritoneal cavity.

c The scientific rationale for conclusions (including assessment of possible causes)

When treating ascites DTP is the main treatment. In the transudate type of ascites, the hydrostatic pressure rises and the intravascular osmotic pressure decreases as a result of hypoproteinaemia. This causes an increase in extravascular osmotic pressure as well as an increase in lymphatic pressure. As a result, fluid from inside the cell enters the extracellular space, increasing the amount of fluid that collects in the peritoneal cavity. Both diuretics and purgatives can be categorized under the term "*virechana*," which is a method that aids in the elimination of improper vitiated Doshas through rectum and anus.

DTP is required to remove the extra fluid and break up the stagnation/obstruction of all *Dosha*. DTP also minimizes oedema and abdominal girth by reducing fluid in the abdominal cavity.

d The primary "take-away" lessons of this case report (without references) in a one paragraph conclusion .

Modern science finds it challenging to treat NAFLD. There are limitations and some negative impacts to modern medicine. Regarding the signs and symptoms of the disease, ayurvedic treatment using *Virechana* (DTP) produces outstanding outcomes. This treatment has been shown to improve the patient's quality of life and stabilize his health by preventing the disease from progressing to a more moderate to severe stage. There is a considerable impact on USG findings and LFT values but little impact on CBC values in laboratory tests. After undergoing treatment for 5 to 6 months, the patient is stable, with minimum or negligible symptoms, and able to go about his regular business. He has not yet experienced relapse and material decline in his health.

12. Patient Perspective

I was suffering from abdominal distention, edema over feet, loss of appetite, dyspnea on exertion, yellow colour urine and stool, generalized weakness since one year before I came to SSNJ hospital. After being diagnosed as a case of ascites due to Nonalcoholic Fatty Liver Disease (NAFLD) cirrhosis, I received allopathy treatment from Gastroenterologist for 8 months but got minimum relief. I was advised to take OPD treatment and was admitted in IPD of SSNJ hospital on 06.04.2022 for proper ayurvedic treatment and diet regimen. The total schedule of treatment was initially described by the doctors and as the treatment was commenced gradually my symptoms were relieved and my abdominal girth and body weight were reduced significantly. Pathological investigations and USG were done frequently to check the result of treatment and found to be significantly changed. I am still following the treatment regularly.

Patient Consent: Informed consent has been obtained by patient before starting the treatment, it will be provided whenever necessary.

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Conflicts of interest: There are no conflicts of interest.

Author contributions/Acknowledgement: SIS collected data and wrote a manuscript, conceived and designed the analysis, GHY and DGD contributed the final version of the manuscript and supervised the project. ARM contributed data analysis tools and scientific writing.

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