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## Management of Udara W.S.R to Alcoholic Liver Disease with *Nitya Virechana* along with *Shamana Aushadhis* - A Case Study



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### ABSTRACT

Chronic liver disease (CLD) is a progressive pathological condition that leads to a gradual deterioration in liver function and metabolism, causing approximately 2 million deaths annually. Excessive alcohol consumption is the primary etiological factor, resulting in significant health deterioration and increased mortality rates. Ascites, a common cause associated with liver disorders, present considerable difficulties and financial burden in terms of treatment, including the need for ascites tapping and, in severe cases, liver transplantation. In Ayurveda, ascites are classified as *Udara Roga*, a category encompassing various abdominal disorders. Ayurvedic principles offer a promising approach by targeting the fundamental causes of CLD and gradually improving liver metabolism. This case report describes the treatment of a 38-year-old male patient who presented with symptoms such as abdominal pain, bloating, yellowish urine and eyes, and reddish skin discoloration. The treatment regimen involved the implementation of "*Nitya Virechana*" (~daily therapeutic purgation) and specific "*Shamana Aushadhis*" (~medicinal remedies). Remarkably, significant improvement was observed within a few scheduled days of treatment, reflecting the effectiveness of Ayurveda in managing CLD and its associated symptoms.



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## INTRODUCTION:

Chronic liver disease (CLD) is a prevalent condition characterized by a gradual decline in liver function, contributing to approximately 2 million deaths annually. The primary causative factor of CLD is alcohol use, with an estimated 75 million individuals diagnosed with alcohol-use disorders among the global population of 2 billion alcohol consumers.<sup>[1]</sup> Exceeding daily alcohol consumption thresholds of 60g for men and 20g for women substantially elevates the risk of alcoholic-associated liver diseases<sup>[3]</sup>. Prolonged alcohol intake spanning 6 to 8 years significantly heightens the risk. Indian populations are susceptible to cirrhosis even with comparatively lower alcohol intake levels and shorter durations<sup>[4]</sup>. CLD typically progresses through three distinct stages, ultimately leading to cirrhosis, which is characterized by architectural disruptions, nodule formation, and obstruction of portal blood flow. These pathological changes in the liver can result in various complications, including Ascites, which is the abnormal accumulation of fluid in the peritoneal cavity. Current treatment strategies for Ascites involve dietary modifications, administration of diuretics, paracentesis (fluid drainage), and in severe cases, liver transplantation.<sup>[4,5]</sup>

In Ayurveda, Ascites are recognized as a form of *Udararoga*, which pertains to abdominal disorders. Under the sub types of udara roga, this condition jalodara is often confused with pittodara and yakritodara due to the similarity in presentation of symptoms. According to Ayurvedic principles, the condition arises due to the accumulation of *Prakupita Vata* (~aggravated *Vata*) between the layers of *Twak* (~skin) and *Mamsa* (~muscular tissue), leading to the manifestation of swelling.<sup>[6]</sup> The underlying pathogenesis involves the accumulation of vitiated *Rasa Dhatu* (~fluid tissue) from the *Koshtha* (~gastrointestinal tract) and the *Grahani* (~small intestine) in the *Udara* (~abdomen), further contributing to the development of Ascites.

## Patient information:

A 38-year-old male farmer presented with persistent complaints of epigastric and right hypochondriac pain, abdominal distension, yellowish discoloration of sclera, and petechial rashes on the lateral aspects of the abdomen, thigh, and gluteal regions for four months. Furthermore, the patient reported experiencing bilateral lower limb swelling and persistent pricking pain for the past three months. A detailed medical history revealed a 13-year alcohol

consumption habit of 60ml per day. The patient exhibited a Pitta Pradhana constitution, with a Pittaja Nadi (pulse) rate of 82 beats per minute. The patient had a dietary pattern characterized by the consumption of Katu Ahara (~food articles of pungent taste), Viruddhahara (~disordered dieting or incompatibility), and chinta (~anxiety). Additionally, the patient had a habit of Divaswapna (~daytime sleep). The patient reported a normal appetite, occasionally constipated bowel habits with pale-coloured stools, and Peetavarna (~yellow colour) of Mutra (~urine), occurring seven times per day.

### **Clinical findings:**

The patient exhibited observable yellowish discoloration in the eyes and reddish discoloration in the skin on the lateral regions of the abdomen, thighs, and gluteal area. Additionally, bilateral pedal edema was observed. Furthermore, the patient reported experiencing a pricking sensation in the lower limbs. Anthropometric measurements included a weight of 68 kg, pulse rate of 82 beats per minute, blood pressure of 140/80 mm Hg, respiratory rate of 14 breaths per minute, and normal body temperature. Physical examination revealed an elevated abdomen and bulging flanks. Abdominal tenderness was observed, and the liver and spleen were palpable. Percussion revealed the presence of shifting dullness, while auscultation demonstrated the puddle sign. Based on these findings, the patient was diagnosed with *jalodara*, attributed to prolonged *Madyapana* (~alcoholism).

### **Diagnostic Assessment:**

USG Abdomen and pelvic Scan showed an irregular liver surface with few collateral channels and mild splenomegaly - features concerning chronic liver parenchymal disease with portal hypertension and Moderate Ascites.

**Table 1. Blood investigations before, during, and after the treatment are mentioned.**

Date	12/02/2022	19/02/2022	25/02/2022
Hb%	8g/dl	-	10.5g/dl
Total Bilirubin	9.3 mg/dl	7.0 mg/dl	4.8 mg/dl
Direct Bilirubin	4.0 mg/dl	3.6 mg/dl	3.0 mg/dl
AST / SGOT	112 U/L	60 U/L	32 U/L
ALT / SGPT	42 U/L	32 U/L	86 U/L
Total Protein	7.7 gm/dl	6.5 gm/dl	6.8 gm/dl
Albumin	3.8 gm/dl	2.1 gm/dl	2.6 gm/dl
A/G Ratio	0.9	0.5	0.6
Alkaline Phosphatase	125 U/L	90 U/L	121 U/L

**Table 2- Differential diagnosis:**

Differential diagnosis	Inclusion	Exclusion
Pittodara	Peeta Akshi, vit, mutra, nakha, aasya Yellowish discoloration of eyes, stools, urine, and nails.	Absence of udakapoorna driti Sparsha, and absence of other features of pittodara such as Trishna, jwara, daha, network of veins over the abdomen
Yakritodara	Dourbalya, koshta vata shola, varcha graha, anaha	Absence of Enlargement of the right side of abdomen
Jalodara	Abdomen is Snigdha, enlarged and bulged out, resembles fluid-filled bag in movement and sound, shula, dourbalya	

**Therapeutic Intervention:**

The patient was admitted and treated on IPD basis. *Koshta Shodhana* was administered with 20ml *Gandharvahasthadi Taila* on the initial day, succeeded by a daily *Nitya Virechana* using 10gms of *Katuki Choorna* along with 50ml of *Gomutra arka*, spanning a duration of 12 consecutive days. Throughout the treatment, the patient was strictly advised to follow a *Pathya Ahara*, which included *Mudga yusha*.

**Follow-up medications:**

1. *Patolakaturohinyadi Kashaya*- 3tsp twice a day before food.
2. *Avipattikara churn*- 5gms weekly once at bedtime

For 15 days.

**Outcome:**

The symptom changes were evaluated before and after a 13-day treatment period. Abdominal girth measurements showed a significant reduction in abdominal distention, while biochemical assessments indicated improved liver function. Notably, all symptoms showed a significant decrease, including reduced swelling in bilateral feet, feeling of lightness, diminished pricking pain and reddish discoloration in the abdomen, thighs, gluteal region and foot, gradual improvement of yellowish discoloration in urine and eyes, and improved appetite. Moreover, the patient's behavior demonstrated a noteworthy improvement, evolving from a state of restlessness and hesitancy at the commencement of the treatment to a state of tranquillity and composure.

**Table 3- Abdominal girth measurements from Day 1 to Day 13.**

<b>Date</b>	<b>Abdominal girth measurements</b>
12.02.22	At umbilicus -87 cm Above umbilicus- 96 cm Below umbilicus- 86 cm
13.02.22	At umbilicus - 87 cm Above umbilicus- 96 cm Below umbilicus- 85 cm
14.02.22	At umbilicus - 86 cm Above umbilicus -95 cm Below umbilicus -85 cm
15.02.22	At umbilicus -85 cm Above umbilicus -95 cm Below umbilicus -86 cm
16.02.22	At umbilicus -84cm Above umbilicus -93 cm Below umbilicus -84 cm
17.02.22	At umbilicus -83 cm Above umbilicus-91 cm Below umbilicus-82 cm
18.02.22	At umbilicus -82 cm Aboveumbilicus-91 cm Belowumbilicus-81 cm
19.02.22	At umbilicus - 82 cm Above umbilicus -88 cm Below umbilicus -80 cm
20.02.22	At umbilicus - 81 cm Above umbilicus -84 cm Below umbilicus -79 cm
21.02.22	At umbilicus - 80 cm Above umbilicus -81 cm Below umbilicus -78 cm
22.02.22	At umbilicus -80 cm Above umbilicus -81 cm Below umbilicus -76 cm
23.02.22	At umbilicus -80 cm Above umbilicus-81 cm Below umbilicus-76 cm
24.02.22	At umbilicus -80 cm Above umbilicus -81cm Below umbilicus -76cm
25.02.22	At umbilicus -80 cm Above umbilicus- 81cm Below umbilicus- 76 cm

## Discussion:

The management of ascites associated with liver disease poses certain significant challenges in terms of treatment. Ascites is a specific abdominal disorder categorized under *Udararoga*, and it is considered a crucial aspect of *Asthamahagada* and requires efficient management. The person involved in the *atyambupana* (~excessive fluid intake), consumption of spicy foods and of pungent taste, very hot, acidic, dry, incompatible foods, eating in excess quantity and *chinta* (~anxiety) leading to disrupted *Vata*, affecting the *Kapha* and *Udaka Dhatu* accumulation in blocked channels, causing ascites. An imbalance in *Kapha* and *Vayu* can trigger excessive thirst, leading to abdominal water accumulation and ultimately resulting in the formation of ascites. Therefore, it is crucial to address the underlying pathology by targeting the root cause, for which *Nitya Virechana* plays a vital role in alleviating dosha obstruction and eliminating retained fluid.<sup>[7]</sup> *Yakrit* (~liver) is considered the *Mula Sthana* (~main site) of *Rakta* (~blood). There exists an *Ashraya Sambandha* (~mutual interdependence) between *Rakta* and *Pitta*, making purgation an effective treatment for eliminating vitiated *Pitta Dosh*.

*Virechana* induces mild inflammatory changes in mucosal cells, leading to increased membrane permeability in the gastrointestinal tract (GIT) and vasodilation, which stimulates defecation. The relaxation phase of peristaltic waves also relaxes the sphincter of Oddi, facilitating the flow of bile into the GIT. *Kapha* is eliminated through the large intestine, where mucus containing bicarbonate ions is secreted. This mucus is expelled along with the elimination of waste products and *Pitta* (~bile) during the *Virechana* process. The secretion of mucus is primarily regulated through direct tactile stimulation of the mucus cells on the inner surface of the large intestine and local nervous reflexes targeting the mucus cells in the crypts of Lieberkuhn.

The elimination of *Pitta* and *Kapha* can have a significant impact on reducing inflammatory changes in liver cirrhosis and fluid accumulation in ascites. *Virechana* plays a crucial role in restoring liver metabolism by effectively eliminating vitiated substances from the body, utilizing its *Vatanulomana* property. Through *Virechana*, abdominal girth, and edema can be effectively reduced by decreasing abdominal fluid.

In this study, *Nitya Virechana* was administered using a combination of *Katuki Churna* and *Gorka* to induce purgation. *Goarka* was administered to the patient following the principles

of "*Apyam Doshaharanam*" (~removal of accumulated fluids) and "*Sroto Shodhana*" (~cleansing of channels).<sup>[8]</sup> The *Ushna* and *Tikshna* properties of *mutra* enhance *Agni*, aid in the removal of *Strotosanga* (~obstruction), and promote *Samprapti Vighatana* (~breakdown of pathogenesis). *Goarka* also eliminated *Apya Dosha* (~excess fluids).

*Katuki* (*Picrorhiza kurroa*) demonstrates safety and efficacy in *Pitta Virechana*, effectively reducing purpura in liver disorders by targeting the liver and regulating bleeding tendencies. This therapeutic effect can be attributed to *Katuki's* hepato-protective action, which involves scavenging free radicals and inhibiting the generation of oxygen anions.<sup>[9]</sup> The key constituents of *Katuki*, specifically *Kutkin*, exhibit anti cholestatic activity against various hepatotoxic substances while promoting bile flow and enhancing the production of bile salts and acids. Consequently, *Katuki* proves beneficial in promoting liver regeneration, addressing cirrhosis, and suppressing the proliferation of troublesome cells during liver injury and Kupffer cell damage.

During the treatment period, the patient exhibited three to eight bowel movements daily, with stable vital signs and normal blood pressure. The daily therapeutic purgation resulted in a notable improvement in all observed symptoms.

The patient received *Arogyavardhini Vati*, *Bhunimba Kadha*, and *Punarnava Mandoora* to address *Pitta Vriddhi* (~pitta aggravation) and properties that enhance liver functions.

*Arogyavardhini Vati* demonstrates hepatoprotective and digestive properties. It effectively reduces the excessive *Snigdhata* (~sliminess/unctuousness) within the body, facilitates the *Pacana* of *Drava* and *Kleda* (~ digestion of fluids), and promotes the production of *Rakta*.

*Bhunimbadi Kadha* possesses therapeutic properties including appetizing, anti-inflammatory, laxative, digestive, antibacterial, hemostatic, and rejuvenating effects. Moreover, it exhibits a notable ability to restore the balance of *Pitta Dosha*.<sup>[10]</sup>

*Punarnava Mandura* demonstrates effectiveness in the treatment of various conditions such as *Pandu* (~pallor/ anemia), *Shotha* (~oedema), *Shwasa* (~bronchial asthma). It plays a significant role in improving blood quality, increasing blood count, and facilitating the elimination of toxins from the body. The presence of alkaloids, including *Punarnavine* and *Punarnavoside*, in *Punarnava* contributes to its anti-fibrinolytic and hepatoprotective



properties, primarily associated with ursolic acid.<sup>[11]</sup> These natural diuretic tablets offer relief for renal failure, liver failure, ascites, puffy eyes, swelling, anemia, and fatty liver conditions.

The patient in this study was put on a *Mudga Yusha*, as a part of *Pathya Ahara*. This diet is characterized by *Laghu* and *Ruksha* properties, facilitating easy digestion without causing any additional complications.

**Conclusion:**

This study focuses on a patient presenting with abdominal pain, bloating, yellowish urine and eyes, and reddish skin discoloration in the abdomen, thighs, and lower limbs, indicative of ascites caused by chronic liver disease. The patient's symptoms were successfully treated using *Nitya Virechana*, a therapeutic purgation technique, with the administration of *Katuki Churna* and *Gomutra*, in addition to *Shamana Aushadhis*. The outcomes demonstrated a significant reduction in symptoms, supporting the efficacy of these medications in managing chronic liver diseases.

**Patient's perspective:** The patient felt happy and satisfied. Additionally, he experienced a decrease in the feeling of tightness and pain in the abdomen and a sense of lightness in his feet. The patient felt complete relief from pain in his lower limbs. Furthermore, he noticed the complete disappearance of the reddish discoloration in his thigh, abdomen, buttock region, and lower limbs. He also felt more relaxed and calmer, which represented a significant change from his previous restless and agitated state.

**Informed consent:** Written Consent taken

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**Conflict of interest:** Nil

**Figures and footnotes:**



**Figure 1-** Before treatment **Figure 2-** After the treatment

**Footnotes:**

Dr. Neeraja Priya participated in acquisition of data, analysis, drafting and submission of the manuscript. Dr. Pradeep L Grampurohit, participated in the critical review, and submission of the final manuscript. Dr. Velagapudi Sai Anuhya, Dr. Vasudev R participated in the selection of study design, acquisition and analysis of data, and drafting of the final manuscript, Dr. Vijay Bhaskar S, participated in the acquisition and analysis of data, critical review and drafting of the final manuscript. All authors have given final approval to the manuscript.

**References:**

1. Asrani SK, Devarbhavi H, Eaton J, Kamath PS. The burden of liver diseases in the world. *J Hepatol.* 2019 Jan;70(1):151-171. doi: 10.1016/j.jhep.2018.09.014. Epub 2018 Sep 26. PMID: 30266282
2. Nobbe AM, McCurdy HM. Management of the Adult Patient with Cirrhosis Complicated by Ascites. *Crit Care Nurs Clin North Am.* 2022 Sep;34(3):311-320. doi: 10.1016/j.cnc.2022.04.005. Epub 2022 Jul 20. PMID: 36049850.
3. Longo DL, Fauci AS, Kasper DL, Hauser SL, Jameson J, Loscalzo J. *Harrison's Principles of Internal Medicine* 2012;219th New York, NY McGraw-Hill:2052
4. Shah SN. *API Textbook of Medicine*, Association of Physicians of India, Mumbai 8th:18
5. Sandhu BS, Sanyal AJ. Management of ascites in cirrhosis. *Clin Liver Dis.* 2005 Nov;9(4):715-32, viii. doi: 10.1016/j.cld.2005.07.008. PMID: 16207572.
6. Agnivesha. In: Acharya YT, editor. (Reprint edition). *Caraka Samhita, Vimana Sthana, 5/12-21*, Varanasi: Chaukhamba Prakashan; 2011. p. 251-252.
7. Agnivesha. In: Sharma R.K, Bhagwan Dash, editor. (Reprint edition). *Caraka Samhita, Chikitsa sthana, volume 3, 13/61*, Varanasi: Chaukhamba Sanskrit Series Office; 2016. p. 539.
8. Agnivesha. In: Sharma R.K, Bhagwan Dash, editor. (Reprint edition). *Caraka Samhita, Chikitsa sthana, volume 3, 13/ 93-95*, Varanasi: Chowkhamba Sanskrit Series Office; 2016. p. 548.
9. Chander R, Kapoor NK, Dhawan BN. Picroliv, picroside-I, and kutkoside from *Picrorhiza kurroa* are scavengers of superoxide anions. *Biochem Pharmacol.* 1992 Jul 7;44(1):180-3. doi: 10.1016/0006-2952(92)90054-m. PMID: 1321626

10. Govind Das. In: Shashtri AD, editor. (4th ed). Bhaishjya Ratnavali, Jvara Chikitsa 5/127-128, Varanasi: Chaukhambha Sanskrit Sansthan: 2008. p. 270.
11. Keppler D, Lesch R, Reutter W, Decker K. Experimental hepatitis induced by D-galactosamine. Exp Mol Pathol. 1968 Oct;9(2):279-90. doi: 10.1016/0014-4800(68)90042-7. PMID: 4952077