

A single-case study of management of *Jalodara* (ascites)

Shital Gopalbhai Bhagiya, Ram B. Shukla¹, Nayan P. Joshi², Anup B. Thakar

Department of Panchkarma, Institute for Postgraduate Teaching and Research in Ayurveda, Jamnagar, ¹Department of Panchkarma, Government Akhandanand Ayurveda College, Ahmedabad, ²Department of Panchkarma, J S Ayurved Mahavidyalaya, Nadiad, Gujarat, India

Abstract

Most common manifestation of liver dysfunction is ascites and most common cause of ascites is liver disease. Ascites is the accumulation of fluid in the peritoneum. In spite of advanced medical facilities, still, there is no sure treatment which cures a patient of ascites totally. The modern treatments only provide provisional relief with time dependent recurrence but, the fluid gets collected in the abdominal cavity repeatedly. In such case, *Ayurvedic* treatment gives relief without any side effect, in such cases and can be correlated with *Jalodara* (ascites) which mentioned in Ayurveda medical science. Diet restriction, medicinal treatment and surgical procedure are mentioned in *Samhita*. Diet restriction is an important feature of the management of this condition. A 46-year-old female came to outpatient department with anorexia, abdominal distension, vomiting after meal, respiratory distress etc. She was given *Nitya Virechana* (daily therapeutic purgation) with *Abhayadi Modaka*, cow's urine, *Sharapunkha Swarasa*, *Punarnava Kwatha*, etc. and restricted diet plan for 3 months. After 3 months, a significant improvement was noted in all the symptoms of the patient. Hb% was also increased from 7.5% to 11.2% and erythrocyte sedimentation rate and serum creatinine were decreased from 35 mm/h to 10 mm/h and 1.2 mg/dl to 0.9 mg/dl respectively. Ultrasonographic findings also showed improvement in comparison with previous report. Hence, it was concluded that *Ayurvedic* management gives relief in ascites.

Keywords: Ascites, Ayurveda, diet restriction, *Jalodara*, *Nitya Virechana*

Introduction

Ascites is a gastroenterological term for an accumulation of fluid in the peritoneal cavity that exceeds 25 ml.^[1] Ascites can be considered in *Ayurveda* under the broad spectrum of *Udararoga* (diseases of abdomen).^[2] Among *Tridosha*, the *Prakupita Vata* (aggravated *Vata*) gets accumulated in *Udara* between *Twaka* (skin) and *Mamsa* (muscles tissue) leading to *Shotha* (swelling); this is being termed as *Udararoga*.^[3] *Vata* is one of the prime causative factors in the manifestation of *Udararoga*.^[4]

Along with the aggravated *Vata*, *Agni* (digestive fire) which is *Manda* (low) also causes *Udararoga*.^[5] Hence, there are multiple factors involved in the causation of *Udararoga*. In other terms, *Udara* is manifested because of vitiated *Rasa Dhatu* portion which gets extravagated from *Koshtha* and *Grahani* gets collected in *Udara*.

Ascites as a disease has been described extensively in *Ayurvedic* literature along with medical treatment and surgical procedures related to the management of this condition. Diet restriction is an important feature of the management of this condition.

Ayurvedic management with drugs such as provocation of digestion, daily therapeutic purgation, stimulant for hepatic function and only milk diet that acts on root of pathology of ascites and by breaking down of pathogenesis gives good result in ascites.

Case Report

A 46-year-old female [figure 1] came with following chief complaints: anorexia for 1.5 years, abdominal distension for 1 year, vomiting after meal for 8 months and respiratory distress, generalized weakness, disturbed sleep and bilateral pedal edema for 6 months.

History of present illness

The patient was alright before 2 years. After that, the patient had low grade fever and after investigations,

Address for correspondence: Dr. Shital Gopalbhai Bhagiya, Department of Panchakarma, Institute for Postgraduate Teaching and Research in Ayurveda, Gujarat Ayurved University, Jamnagar, Gujarat, India. E-mail: shital1811@gmail.com

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diagnosis of malarial parasite was done. After treatment of malaria fever was subsided, she had pain in the right and left hypochondriac region, for which she started using analgesics frequently without prescription. Thereafter, the patient felt anorexia, vomiting and heaviness of abdomen, respiratory distress, pedal edema etc. For this, the patient took allopathic medicine for 2 months but did not get relief, hence she came to Panchakarma Department, Government Akhandanand Ayurveda Hospital, Ahmedabad and was admitted to the indoor patient department for daily observation.

Past history

- History of malaria before 2 years

Table 1: Investigations before and after treatment

Parameters	BT	AT
Hematology parameters		
Hb (%)	7.5	11.2
TLC (cells/cumm)	9800	7700
RBC (million cells/mcl)	4.3	5.1
ESR (mm/h)	35	10
Total protein (g/dl)	3.8	2.3
Serum creatinine	1.2	0.9
HBsAg, hepatitis A, hepatitis C antibodies	Negative	Negative
Imaging		
USG abdomen	Moderate ascites Mild hepatomegaly Massive splenomegaly	Gall bladder calculi measured 2.8 mm in size No any significant abnormality detected (6.5 mm)

Hb: Hemoglobin, TLC: Total leukocyte count, RBC: Red blood cells, ESR: Erythrocyte sedimentation rate, BT: Before Treatment, AT: After Treatment

- No history of tuberculosis, diabetes mellitus, hypertension, hypothyroidism, any surgery or chronic illness.

Family history

- No evidence of this type of disease in the family.

Physical examination

- Bilateral pedal edema: +++
- Body temperature: 98.6 F
- Mild pallor
- Blood pressure: 126/70 mmHg
- Pulse: 86/min
- No icterus
- Respiratory rate: 20/min.

Systematic examination (per abdomen)

- Inspection: Distended abdomen
- Palpation: Hepatomegaly (2 cm below the right costal margin), splenomegaly, tenderness in the right and left hypochondriac region
- Percussion: Shifting dullness and fluid thrill: Present.

Investigation

Table 1 summarizes the blood profile and ultrasound investigations before and after treatment.

Treatment

Table 2 shows the treatment schedule of the patient.

Pathya-Apathya

Diet was restricted to the patient and she was kept on only cow milk (*Shunthi Siddha Godugdha*). All type of food items and water were restricted for 3 months. When the patient was hungry or thirsty, she was given lukewarm *Shunthi Siddha Godugdha* only. Medicines were also given with cow milk as an adjuvant.

Table 2: Treatment schedule of patient

Date	Medicine	Dose	Anupana	Time
22/8/2013 to 28/8/2013	<i>Gomutra</i> (Cow urine)	50 ml	Luke warm water	1 time/day
	<i>Trikatu Churna</i> (powder)	5 grams	Luke warm water	3 times/day
	<i>Punarnavadi Kwatha</i> (Decoction)	20 ml	-	2 times/day
	<i>Shivakshara Pachana Churna</i> (Powder)	5 grams	Luke warm water	3 times/day
29/8/2013 to 5/9/2013	<i>Gomutra</i> (Cow urine)	50 ml	Luke warm water	1 time/day
	<i>Abhayadi Modaka</i> (Tablet)	1 tab (125 mg)	Tap water	1 time/day (Morning)
	<i>Punarnava Mandura</i> (Tablet)	500 mg	Luke warm water	2 times/day
	<i>Shivakshara Pachana Churna</i> (Powder)	5 grams	Luke warm water	3 times/day
6/9/2013 to 16-9-2013	<i>Abhayadi Modaka</i> (Tablet)	1 tab (125 mg)	Tap water	1 time/day (Morning)
	<i>Sharapunkha Swarasa</i> (Herbal juice)	20 ml	Luke warm water	1 time/day
	<i>Punarnava Mandura</i> (Tablet)	500 mg	Luke warm water	2 times/day
	<i>Aarogyavardhini Vati</i> (Tablet)	500 mg	Luke warm water	2 times/day
17/9/2013 to 21/10/2013	<i>Sharapunkha Swarasa</i> (Herbal juice)	20 ml	Luke warm water	1 time/day
	<i>Erandabhrishta Haritaki</i> (Powder)	5 grams	Luke warm water	1 time/day (at night)
	<i>Punarnava Mandura</i> (Tablet)	500 mg	Luke warm water	2 times/day
	<i>Aarogyavardhini Vati</i> (Tablet)	500 mg	Luke warm water	2 times/day

Luke warm water had been used as on *Anupana* of given medicines

Table 3: Relief in symptoms

Date	Anorexia	Vomiting after meal	Abdominal distension	Respiratory distress	Generalized weakness	Disturbed sleep	Bilateral pedal edema
August 22, 2013	+++	+++	+++	++	+++	+++	+++
August 27, 2013	++	+	+++	++	+++	+++	+++
September 1, 2013	++	+	+++	++	++	++	+++
September 6, 2013	+	-	++	++	+	+	+++
September 11, 2013	+	-	++	+	+	+	++
September 16, 2013	-	+	++	+	+	+	++
September 23, 2013	-	-	+	+	+	-	+
September 30, 2013	-	-	+	-	-	-	+
October 7, 2013	-	-	+	-	-	-	+
October 14, 2013	-	-	+	-	-	-	+

+: Indicates severity of complaints, -: Indicates absence of sign or symptoms

Table 4: Measurement of abdominal girth

Date	4 cm below umbilicus (cm)	At umbilicus (cm)	4 cm above umbilicus (cm)
August 22, 2013	93	90	86.5
August 27, 2013	92.5	90.0	86.5
September 1, 2013	92.5	88.5	85.0
September 6, 2013	91.0	87.0	83.5
September 11, 2013	90.0	86.0	82.0
September 16, 2013	88.0	85.5	81.5
September 23, 2013	86.5	83.5	79.0
September 30, 2013	85.0	82.0	78.0
October 7, 2013	83.0	82.0	78.0
October 14, 2013	83.0	68.5	73.0
October 21, 2014	82.5	81	73.0

Table 5: Improvement in (*Ubhay-pada Shotha*) pedal edema

Date	Right (cm)	Left (cm)
September 22, 2013	38	37.0
September 27, 2013	37	36.5
September 1, 2013	37.5	36.5
September 6, 2013	37	36.0
September 11, 2013	36.5	35.5
September 16, 2013	35	34.5
September 23, 2013	33.5	33.5
September 30, 2013	32	32.5
October 7, 2013	30.5	31
October 14, 2013	30	30.5
October 21, 2013	30	30.5

Mid-point between knee joint and ankle joint

Results

Significant results were found in all the symptoms, abdominal girth and pedal edema [Tables 3-5].

Table 3 presents the relief in symptoms and Table 4 provides the measurement of abdominal girth and Table 5 shows the improvement in (*Ubhay-Pada Shotha*) pedal edema (mid-point between knee joint and ankle joint).

Discussion

Discussion on causes of ascites, *Aacharya Charaka* has mentioned many causes of *Udararoga*. In the present case, the patient had low digestive fire, over eating, very hot, salty, spicy, acidic food, taking dry and impure diet, negligence of the treatment of severe diseases and suppression of natural urges.^[6]

Discussion on treatment of ascites^[7]

Nidana Parivarjana (avoid causative factors)

For this diet and water, intake was restricted and the patient was kept only on milk diet.^[8]

Agnidipti (provocation of digestion)

Mandagni is the chief factor in any type of *Udararoga*. For *Agnidipti*, *Trikatu Churna* (for 6 days) and *Shivakshar Pachana Churna* (for 15 days) were given to the patient. It enhances *Agni* and helps in *Samprapti Vighatana* (breakdown of pathogenesis).

Apyam Doshaharanam and Sroto Shodhana (removing the accumulated fluid)

Gomutra^[9] was given to the patient (15 days). *Tikshna*, *Ushna Guna* of *Mutra* (urine) enhances *Agni* (digestive power). By its *Ushna* (hot), *Tikshna* (sharp) and *Ruksha* (dry) *Guna*, it removes *Strotosanga* (obstruction) of channels and helps in *Samprapti Vighatana* (breakdown of pathogenesis). Simultaneously, there was removal of *Apya Dosha* (water retention) also.

Nitya Virechana (daily therapeutic purgation)

Chikitsa Sutra of *Jalodara* is “*Nitya Virechana*.” To break up the *Sanga* of all *Dosha* and retained fluid and separate them, *Virechana* is necessary. Liver (*Yakrita*) is the *Mula Sthana* (main site) of *Rakta*. *Rakta-Pitta* has *Ashraya* and *Ashrayi Sambandha* (mutual interdependence), hence for elimination of vitiated *Pitta Dosha*, purgation is the best treatment. *Virechana* also decreases abdominal girth and edema by decreasing fluid in the abdominal cavity.^[10] *Abhayadi Modaka*^[11] was given in present case for *Virechana* purpose. Daily 5–8 *Vega* were noted in patient after giving *Abhayadi Modaka*. More results were achieved in all the symptoms after starting daily therapeutic purgation.



Figure 1: BT Photograph of patient

Arogyavardhini Vati and *Sarpunkha Swarasa*

Arogyavardhini Vati is known for its benefits especially to the liver. *Arogyavardhini* maintains the liver function and promotes balance as well as a healthy digestive system. Its main content is *Katuki* (*Picrorhiza kurroa* Royle ex Benth.) which acts as *Pitta Virechana* and acts on *Yakrita*.^[12,13] Ascites may be caused due to any pathology of liver, heart, kidney, etc., but ascites from liver disease is difficult to be treated; hence, there comes the need to correct the pathology from its root cause. In the present case, the patient also has hepatomegaly hence these drugs were administered. *Sharapunkha* is the drug of choice in spleen and liver diseases. It corrects the working of digestive system. It improves the functioning of liver. The study shows that *Sharapunkha* has hepatoprotective activity.^[14]

Punarnavadi Kwatha and *Punarnavadi Mandura*

Punarnavadi Kwatha is indicated in the treatment of *Udara Roga* and it also reduces *Shotha* (swelling). It corrects *Pandu* and *Shwasa* too. The patient had all these symptoms with *Jalodara*, hence this *Kwatha* was prescribed which had shown significant result in all symptoms. *Mandura* is also indicated in *Pandu* (anemia), *Shotha* (oedma) and *Shwasa* (bronchial asthma) which significantly improved *Pandu*.^[15,16]

Erandabhrishta Haritaki

This was given for *Vatanulomana* purpose. *Apana Vayu* is also included in *Samprapti* of *Jalodara*. Because of *Erandabhrishta Haritaki*, *Apana Vayu* moves toward its normal path and it helps counteracting pathology. It also posses laxative effect.

Conclusion

Daily therapeutic purgation, diet restriction and *Ayurvedic* medicines had shown improvement in all the symptoms of *Jalodara*. In the present case, abdominal girth, pedal edema and all above-mentioned symptoms were significantly improved without any side effect. Although the patient was kept only on milk diet, no any side effects were noted during and after the treatment. In the present case, *Arogyavardhini Vati* was given for 45 days continuously, but no any side effects were noted;

hence, it can also be concluded that metallic preparations are not harmful to the body if given in suitable dose, rather it gives more benefits. Hence, it can be concluded that *Ayurvedic* medicines with *Nitya Virechana* give better result in ascites without side effect.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understand that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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