

A Study on Effectiveness of Cow's Milk Along with Arogyavardhini Vati (An Ayurvedic Formulation) in the Management of Ascites: A Case Study

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ABSTRACT

Ascites is the accumulation of peritoneal fluid in the abdominal cavity. Among all the causes of ascites, liver cirrhosis is one of the commonest cause. Liver cirrhosis is a chronic degenerative disease characterized by replacement of normal liver tissue fibrosis that disrupts the normal liver function., which is complicated by ascites. Mild to moderate ascites is treated by salt restriction and diuretic therapy. Tense ascites is treated by paracentesis, followed by albumin infusion and diuretic therapy. Ascites due to liver cirrhosis , a life threatening condition is incurable due to its fibrotic nature .So, there is always a search for an alternative treatment like Ayurveda for its management. This paper highlights the effectiveness of using 'only milk diet' and a potent Ayurvedic formulation, Arogyavardhini vati for the management of ascites.

Keywords: Ascites, Ayurveda, Godugdha, Arogyavardhini Vati

INTRODUCTION

Ascites is the accumulation of peritoneal fluid in the abdominal cavity. The primary causes of ascites are liver cirrhosis, cancer, heart failure, tuberculosis, pancreatitis, blockage of the hepatic vein etc. Among these, liver cirrhosis is one of the commonest cause¹. Liver cirrhosis is a chronic degenerative disease characterized by replacement of normal liver tissue fibrosis that disrupts the normal liver function, may be due to alcoholism, non-alcoholism and fatty liver, which is complicated by ascites. Liver cirrhosis is the 11th leading cause of death and 15th leading cause of morbidity accounting for 2.2% of deaths and 1.5% of disability, approx. two-third among men and one-third among women². Mild to moderate ascites is treated by salt restriction and diuretic therapy. Tense ascites is treated by paracentesis, followed by albumin infusion and diuretic therapy. Ascites due to liver cirrhosis , a life threatening condition is incurable due to its fibrotic nature .So, there is always a search for an alternative treatment like Ayurveda for its management.

Ascites can be considered in Ayurveda under the broad spectrum of Udararoga³. Among tridosha, ,the Prakupita Vata gets accumulated in Udara between twaka and mamsa leading to sotha; this is being termed

as Udara roga. Vata is one of the prime causative factor in the manifestation of Udararoga. Along with the aggravated Vata, Agni which is Manda also causes Udararoga. In other terms, Udararoga is manifested because of vitiated Rasa dhatu portion which gets extravagated from Kostha and Grahani, gets collected in Udara. There are eight varieties of udara roga mentioned in classics where Jalodara, a variety resembles to ascites. Diet restriction is an important feature in the management of this condition along with provocation of digestion, stimulation of hepatic function and daily therapeutic purgation. Further, for the treatment, Ayurveda considers consumption of 'only milk diet' gives good result in ascites by breaking down of pathology as it acts on the root of the pathogenesis. Arogyavardhini Vati⁴, a very popular classical medicine mentioned in Ayurvedic classics shows very promising results in the management of ascites.

CASE REPORT

A 39 yr old euthyroid, non-hypertensive, non-diabetic male patient, a known case of Chronic liver disease since December, 2022 from Kamalpur, Assam attended RogaNidan OPD at Govt. Ayurvedic College & Hospital, Jalukbari, Ghy-14 on 04/04/2023. He presented with the complaints of huge distension of abdomen along with heaviness of the body which is gradually increasing in nature since 2 months followed by decreased urine output since 4 days, swelling of bilateral lower limbs and on and off pricking pain in both the legs since 3 days. He was a chronic alcoholic since 7yrs. On general examination, jaundice (4+), pallor (2+), bipedal oedema (3+), abdominal girth 110 cm, BP-100/60 mm Hg, PR- 78 bpm were found. On systemic examination, presence of coated tongue, everted umbilicus, distended abdomen, presence of fluid thrill and shifting dullness, on percussion dull sound heard and bowel sound was heard properly. There was tenderness on the right hypochondriac region and purpura was seen over the same area. On laboratory examinations, total serum bilirubin level-19.5 mg/dl, direct bilirubin- 10.4 mg/dl, indirect bilirubin level-9.1 mg/dl, SGOT- 211U/L, ALP-110U/L, GGT-76U/L, Hb- 7.5mg/dl. USG W/A shows severe ascites with mild cirrhotic changes in the liver. The patient took treatment at various other hospitals following allopathic line of management, got relief but there was recurrence of the symptoms after few months and had dearranged LFT again. Hence, he was admitted at RogaNidan IPD, GACH for further proper management of the patient.

TREATMENT PROTOCOL

After the proper evaluation of the patient, it was found that the patient was evaluated to have prana-agni-pana vayu dusti and pitta pradhan tridosha along with rasavaha, raktavaha, udakavaha, swedavaha, mutravaha, purishavaha srotas are supposed to be involved. As per the pathogenesis, nitya virechan along with nitya godugdha sevan and supportive medicine for liver and spleen is the treatment protocol of jalodara as per the Samhitas. So, the patient was advised with a classical Ayurvedic formulation, Arogyavardhini Vati⁴ (Table 01& Table 02) along with diluted cow's milk in an appropriate dose (Table 02). All types of major meals were restricted for 3months. Even if he feels hungry, only diluted milk is allowed to drink. Medicines were kept as adjuvants. The patient was asked to follow up at an interval of 1^{1/2} months during which the patient visits twice as a follow up visit. In the every follow up, all the clinical assessment was done like the general and systemic examination and status of earlier complaints or new fresh complaints were noted and the reports concerned were reviewed in every visit. Diet restriction was still advised to follow till the end.

TABLE 01

| SL.NO | NAME OF INGREDIENTS | QUANTITY |
|-------|--------------------------|--------------------------------------|
| 1. | Suddha Parada | 1part |
| 2. | Suddha Gandhaka | 1part |
| 3. | Loha Bhasma | 1part |
| 4. | Tamra Bhasma | 1part |
| 5. | Abhraka Bhasma | 1part |
| 6. | Triphala | 2part |
| | • Haritaki | |
| | • Bibhitaki | |
| | • Amlakhi | |
| 7. | Shilajit | 3part |
| 8. | Guggulu | 4part |
| 9. | Katuki | 22part |
| 10. | Chitrakmula/ Erandamoola | 4part |
| 11. | Nimba swaras | Quantity as per need for making pill |

TABLE 02

| Sl.no | Name of medicine | Dosage | Frequency | Anupana |
|-------|---------------------|------------|-------------------------|----------|
| 01. | Arogyavardhini Vati | 250mg | Twice daily before food | Godugdha |
| 02 | Diluted Cow's milk | 2-2.5L/day | - | |

OUTCOME

After continuing Ayurvedic treatment for 1^{1/2} months, the patient came for 1st follow up visit where it showed improvement in the health status (Table 03). On clinical examination, jaundice (3+), pallor (2+), bipedal oedema (2+), abdominal girth 95cm were found. The patient underwent LFT twice since the start of our treatment. Every time the reports were reviewed (Table 03). At the beginning of treatment, Total Serum Bilirubin- 19.5 mg/dl, Direct bilirubin- 10.4 mg/dl, Indirect bilirubin- 9.1 mg/dl, SGOT-211U/L, ALP- 110U/L, GGT-76U/L and after 1^{1/2} months of treatment, LFT report showed Total serum bilirubin-10.8mg/dl, direct bilirubin-6.4 mg/dl, indirect bilirubin-4.4mg/dl, SGOT-115U/L, ALP-100U/L, GGT-69U/L. In the second follow up visit, the health status improved significantly and LFT showed Total serum bilirubin-5.8mg/dl, Direct bilirubin-3.8mg/dl, indirect bilirubin-2.0mg/dl, SGOT-69U/L, ALP-132U/L, GGT-62U/L. His physical status also improved from earlier. He can now carry out his daily activities smoothly and without much effort. The distension of abdomen along with severe jaundice and severe bipedal oedema reduced to mild levels.

The findings of the parameters before and after the treatment in the follow up visits are described in the below table-

TABLE 03

| PARAMETERS | | BEFORE TREATMENT | AFTER TREATMENT (1 ST follow up) | AFTER TREATMENT (2 ND follow up) |
|---------------|----------------------|------------------|---|---|
| LABORATORICAL | S. bilirubin (total) | 19.5 mg/dl | 10.8mg/dl | 5.8mg/dl |
| | Direct bilirubin | 10.4 mg/dl | 6.4mg/dl | 3.8mg/dl |
| | Indirect bilirubin | 9.1 mg/dl | 4.4mg/dl | 2.0mg/dl |
| | SGOT | 211 U/L | 115U/L | 69U/L |
| | ALP | 110 U/L | 100U/L | 132U/L |
| | GGT | 76 U/L | 69U/L | 62U/L |
| CLINICAL | Jaundice | ++++ | +++ | ++ |
| | Pallor | ++ | ++ | + |
| | Bipedal Oedema | +++ | ++ | + |
| | Abdominal girth | 110 cm | 95cm | 80cm |

DISCUSSION

The present case report shows effective treatment by the diet restriction with kalpa ahar i.e. cow’s milk along with Ayurvedic medicine, Arogyavardhini Vati in a certain case of Ascites. The patient after being diagnosed as a case of Ascites with severe jaundice, the quality of life and physical status of the patient got deteriorated due to higher levels of bilirubin. But with the Ayurvedic protocol of diet restriction therapy mentioned in the classics, the result was encouraging. Godugdha⁶ as described in the classics is Rasayana, balya, ojhavardhak, srotosodhak, jivaniya, alpa abhisyanda, vatapittasamak, sukha virechak, angapustiprada, pathya and ruchikara helps in nutrition of the whole cells of the body involved in the circulation, helps to carry the toxic materials from the cells to the exterior by increasing purgation, directly acts on the hepatocytes and increases the regenerative and productive power of liver by secreting huge amount of growth factor. Increased purgation reduces the peritoneal fluid content, thus decreasing the portal venous hypertension and hence the stress on the liver decreases. As the patient was on restricted diet, the cells are bound to take nutrients from milk only which in turn helps in good cell regeneration. Arogyavardhini Vati, an important classical medicine is routinely used in Ayurveda for curing hepatic diseases along with other ailments. Among the contents of this medicine, Tamra bhasma, guggulu, Triphala is having lekhana, usna-tikshna and Medadoshahara properties due to which it might be effective in clearing out the blocked hepatic sinusoids, thereby reducing portal hypertension. Another ingredient, Katuki has potent purgative effect, thus reducing Kleda and Ama. Guggulu remove Avarana of Vata and clear channels of lipid transportation⁷. Godugdha along with Arogyavardhini Vati has showed good effect in purgation due to its respective properties. Increased purgation reduces the peritoneal fluid content, thus decreasing the portal venous hypertension and hence the stress on the liver decreases. So, the synergistic effect of the combination has been successful in the managing the disease, ascites.

CONCLUSION

From the present case it may be concluded that by diet therapy along with Ayurvedic formulation brings a treasure trove of benefits in the disease management. It focuses on using food as medicine to promote healing, prevent diseases and optimize overall health.. Diet therapeutic purgation, diet restriction and ayurvedic medicine had shown improvement in all the symptoms of Jalodara. Modern sciences still don’t

have sure treatment which can cure the disease completely but has only symptomatic cure with time dependent recurrence. Ayurveda aims at conservative treatment first than an interventional treatment. So, Ayurvedic medicinal treatment with milk as a diet can give better results. The probable mechanism of synergistic effect of godugdha and Arogyavardhini Vati has been tried to explain but still there is a need of high molecular level research on the action of the combination on disease management.

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