



Clinical Evaluation of Efficacy of Ayurvedic Management of *Jalodara* W.S.R. to Tuberculosis induce Ascites: A Case Report Hemlata Soni*¹, Kartar Singh Bansal²

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Abstract: Tuberculosis (TB) is a serious infectious disease. The diagnosis of TB is a challenge among older patients because of its nonspecific presentation, especially for cases of extra pulmonary TB. Gastrointestinal involvement had been reported to be 55%-90% in patients with active pulmonary TB before the advent of specific anti-TB treatment. But it was regressed to 25% after the development of specific drugs. TB ascites is known as *Jalodar* or *Dakodar* in Ayurvedic system. Ayurvedic management for this disease includes oral medications as well as *Virechan* for specific treatment to reduce accumulation of fluid, as well as treatment to remove the obstruction *Ksheerapan* for diet regulation plays an important part of management of this diseases. The present case is uncomplicated tuberculosis induce ascites since 6 month. Patient was treated with “*Punarnava Mandura*” (250gm), “*Gudadraka Yoga*” (6gm), “*Pippali Vardhman Rasayan*” (1to5gm) and “*Arand Tail*” (25ml) for 30days. The patient got relief from after 7 days of treatment.

Keywords: Ascites, Tuberculosis, *Jalodara*, *Punarnava Mandura*, *Gudadraka yoga*, *Pippali Vardhman Rasayan* and *Arand Tail*.

Introduction:

Jalodara considered as a disease, instead of a symptom or a sign of other diseases. It is of two types i.e. *Svatantra* (independent or primary) and *Paratantra*¹ (secondary) that is due to some other disease. According to the modern conception Ascites is sequel to some other disease or its complication. In the developed world, the most common cause is liver cirrhosis. Other causes include tuberculosis, cancer, heart failure, pancreatitis, and blockage of the hepatic vein.² Tuberculosis (TB) is a serious infectious disease. The diagnosis of TB is a challenge among older patients because of its nonspecific presentation, especially for cases of extra pulmonary TB. Extra pulmonary TB occurs in about 15 % of cases worldwide. In 2002–2011, accounted for 21.3 % of TB cases among people aged 65 years or older (Sandgren et al., 2013). Gastrointestinal involvement had been

reported to be 55%-90% in patients with active pulmonary TB before the advent of specific anti-TB treatment. But it was regressed to 25% after the development of specific drugs³. TB ascites is known as *Jalodara* or *Dakodara* in Ayurvedic system. According to Ayurveda main causes for *Udar Roga* are *Mandagni* and *Garvisha*. There are eight types of *Udar Roga*, in which *Vataj*, *Pittaj*, *Kaphaj*, *Yakrutplihodar*, *Sannipataj*, *Jalodara* is sequensaly more hard to treat⁴. *Susruta* called all *Udararoga* as "*Mahagada*" i.e. grave ailments and difficult to treat. Ayurvedic management for this disease includes oral medications as well as *Virechan* for specific treatment to reduce accumulation of fluid, as well as treatment to remove the obstruction *Ksheerapan* for diet regulation plays an important part of management of this diseases.⁵ It is useful in case of ascites as it has laxative and diuretic action which helps to excrete excess fluid out of body.

CASE REPORT:

A 65 year old female patient, reported to Kayachikitsa OPD, in National institute of Ayurveda, Jaipur, Rajasthan, India, on 11/03/2018 with complaint of *Udarvridhi* (increased abdominal girth), *Swaskrichata* (breathing difficulty on exertion along with sitting position), *Droubalya* (generalised weakness), *Alpakshudha* (anorexia) since 6 months and *Ubhay padashotha* (bilateral pedal oedema) since 2 month. On history taking Patient was said to be apparently normal 6 months

back. Then she had been suffering from distension of abdomen after meal. After that she felt gradually increase abdominal girth and breathing difficulty on exertion along with lying position. She got pain in abdomen which causing discomfort. She also suffering from bilateral pedal edema which was pitting in nature since 2 months. Patient is also having complaints of decreased appetite and weakness in all over body. He took modern medication but got no relief, then patient decided to take Ayurvedic management.

Past History: H/O Koch's abdomen - 2 year back, took ATT (completed course).

Family history: H/o pulmonary tuberculosis in her father.

Personal History:

Type of diet-veg

Occupation-house wife

Bad habits-chewing guttaka since 34years

Table 1: General Examination:

Pulse	80 beats /minute, Regular
BP	100/76 mm hg
R.R.	18/min
Temperature	99.4 ⁰ F
Height	160cm
Weight	57kg
Appetite	Poor
Bowel	Constipation
Micturition	2-3 times /day ,1 times at night
Sleep	Distrubed
Pallor	Present
Icterus	Present
oedema	B/L pedal oedema present


Table 2: Systemic Examination

R/S	Asymmetrical chest, no tenderness, B/L reduce air entry, Pleural rub sound present on basal zone of chest.	
CVS	S1 S2 normal, no abnormal sound.	
CNS	Patient is well oriented to time, place and person.	
	Inspection	Abdomen was distended with bulging of flanks. Veins on the wall

P/A		appears prominent. Umbilicus transverse.
	Palpation	Soft, tenderness in rt. & lt. hypocondric region and rt. Iliac region. Hepatomegaly (2 finger below the right costal margin) and splenomegaly (grade 2)
	Percussion	Shifting dullness present

TREATMENT PLAN:

Table 3:

Sr. No.	Medicine	Dose	Duration	Anupana
1	Tb. <i>Punarnava Mandura</i> ⁶	250mg	BD	<i>Makoya Arka</i>
2	<i>Gudadraka yoga</i> ⁷ (<i>Guda + Adraka</i>)	6gms (3gms grated <i>Adraka</i> + 3gms <i>Guda</i>)	BD (Before meal)	Cow milk
3	<i>Pippali Vardhman Rasayan</i> ⁸	1 st Day- 1 g (Increased 1 g daily) 5 th Day to 10 th Day - 5 g  11 th Day-4 g (tapered by 1 g daily) 15 th Day-1g (repeat same processor for next 15 days)	BD	Cow milk
4	<i>Arand Tail</i> ⁹	25ml	HS	Cow milk
5	Diet	Patient is only on Cow milk		

Total duration of treatment: 30 Days

OBSERVATION & RESULT:

Table 4: Abdominal girth assessment (in cm)

Date	At umbilicus	Xiphisternum to Umbilicus	Umbilicus to pubicsymphysis
11.03.2018	92	23	17
18.03.2018	88	22	17
25.03.2018	85.5	21.5	16.5
1.03.2018	82	20	16.5
9.03.2018	80.5	20	16.5

Table 5: Pedal edema assessment (mid-point B/W knee and ankle joint)

Date	Right (cm.)	Left (cm.)
11.03.2018	29	30
18.03.2018	27.5	28
25.03.2018	25	26.5
1.03.2018	24	25
9.03.2018	23.5	24

Table 6: Clinical finding assessment

Date	Weight (in kg.)	24 hour urine output (in ml)	Breathing difficulty	Generalized weakness	Anorexia
11.03.2018	57	500	++	+++	++
18.03.2018	55	650	++	++	++
25.03.2018	54	800	+	++	+
1.03.2018	52	1000	+	+	-
9.03.2018	52	1000	+	+	-

+: indicate severity of complain, -: indicate absent of sign & symptoms

Table 7: Laboratory investigations before and after treatment

Test	Before Treatment	After Treatment
Hb%	8.1gm/dl	9.2gm/dl
RBC	3.32 ×10 ⁶ /mm ³	4.73 ×10 ⁶ /mm ³
TLC	13,640per mm ³	12,500per mm ³
ESR	36mm in one hour	20 mm in one hour
Platelet count	1,24,000 /μL	1,132,000/μL
HB _s Ag	Negative	Negative
Mantoux Test	Negative	Negative
Urine analysis	Albumin trace. p ^H -6.0 Pus cells 1-3/hpf	Albumin absent. p ^H -6.8 Pus cells absent
RFT	Sr.Urea-33mg/dl , Sr.Creatinine-0.92mg/dl	Sr.Urea-31mg/dl, Sr.Creatinine-0.92mg/dl
LFT	Sr. Bilirubin Total- 3.6, Direct bilirubin- 2.0 Total protein-5.5g/dl SGOT- 62 IU/Lit, SGPT- 86 IU/Lit	Sr. Bilirubin Total- 2.5, Direct- 0.9, Total protein-6.2g/dl SGOT- 50 IU/Lit, SGPT- 74 IU/Lit
USG Abdomen	Cirrhosis of Liver with Splenomegaly with moderate Ascites. Gall bladder is thickened.	Cirrhosis of Liver with Splenomegaly with mild Ascites. Gall bladder is thickened.

DISCUSSION:

Jalodara is *Swedavaha* and *Ambuvaha Strotodushti janyavikar*¹⁰. Due to obstruction of *Swedavaha* and *Ambuvaha Strotas* excessive accumulation of fluid, especially in peritoneal cavity. So, Patient was treated with an integrated approach of *Ayurvedic* treatment. Appreciable results were observed in the form of reduction in abdominal girth, decreased pedal edema, increased appetite, and increased strength.

1. Most of the drugs in “*Punarnava Mandura*” that is *Triphala*, *Trikatu*, *Chitraka*, *Vidanga* and *Pippalimula* are having appetizer, digestive and carminative properties. The components like *Trivrita*, *Haritaki* and *Danti* act as purgative which help in relieving constipation mainly found in old age. *Punarnava* helps to reduce edema by its *Shothhara* action. Other drugs

that is *Amalaki*, *Danti*, *Pippali*, *Kushtha* and *Daruharidra* are documented as drugs which are having immunomodulator and antioxidant properties. *Mandura Bhasma* by virtue of *Rasa* and *Guna* it pacifies aggravated *Pitta* and maintains the normalcy, improves the metabolism. The ferric and ferrous fractions of *Mandura* provide sufficient amount of iron to the living matter, which is needed for normal erythropoiesis. As *Gomutra* (Cow's urine) is one ingredient of *Punarnava Mandura*, it works as *Rasayana* by its antioxidant property¹¹.

2. The ingredients of “*Gudadraka Yoga*” are *Adraka* & *Guda*, in which *Adraka* is of *Katu Rasa*, *Ushna Virya* & *Tikshna Guna* which is mainly *Kaphashamak*, while *Puran Guda* is of *Madhur Rasa*, *Ushna Virya* & having property of *Tridosha shaman*.¹² In *Agnimandya* mainly there is

vitiation of *Kapha Dosha* & its *shaman* occur with help of *Gudarak Yoga*. The *Gudaraka Yoga* is consumed before food as it is good appetizer.

3. *Pippali* having *Shothanashak* property. It has *Katu Rasa* therefore, this property subsides the *Kapha Dosha* and enhance the biological fire (*Jatharagni*).¹³ As per text *Pippali* is *Rasayana* which acts on *Agni* level and nourish the malnourished *Dhatu*.

4. According to *Aacharya Vagbhata* “*Arand Tail*” is *Aavarakadosha Shamaka*. *Arand* has *Usna Virya* so that it subside the *Kapha* and *Vata Dosha*.¹⁴ Castor oil has been reported to have purgative, analgesic and anti-microbial properties. It might be act by diminishing reabsorption of water from intestine, by stimulating nerves in small & large intestines resulting in increased motility. Along with this, patient was advised to take only cow milk. it is a balanced diet so it prevents any weakness in body, increases the protein level which further lessens the swelling occurring due to reduced oncotic pressure. Cow milk possesses the properties like *Ojowarhdhaka* (increases immunity), *Dhatuwardhaka* (nourishes body tissue), *Balya* (improves strength) and best *Rasayana* (good rejuvenator).¹⁵ The patient is given this treatment for one month and admirable result was obtained. During treatment period, patient passes loose watery stool 5-6 times a day. Therefore, this treatment is useful in ascites and generalized edema by excreting excess fluid out of body.



CONCLUSION:

In this case study of tuberculosis induce ascites observed that effect of Ayurvedic medicines are very satisfactory. Patient got significant relief, but it is only a single case. Large scale clinical trial should be done to establish it as general treatment for ascites.

SCOPE OF STUDY:

This case study shows very promising results in tuberculosis induce ascites. There is great scope for further study in ascites, which can overcome with less financial budget & less side effects.

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Figure 1: BT Photograph of patient



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