



ORIGINAL RESEARCH PAPER

Ayurveda

A STUDY ON THE EFFECT OF GOMUTRA ARKA(COW'S URINE DISTILLATE) AND BHUMIAMLAKI SWARAS (PHYLLANTHUS NIRURI) IN THE MANAGEMENT OF HEPATOCELLULAR CARCINOMA- A CASE STUDY

KEY WORDS: HCC, Gomutra arka, Bhumiamlakhi swaras

Dr. Hemen Kalita Associate Professor, Department of Roga Nidan, Govt. Ayurvedic College & Hospital, Jalukbari, Guwahati-14

Dr. Tasmita Das PG Scholar, Department of Roga Nidan, Govt. Ayurvedic College & Hospital, Jalukbari, Guwahati-14

ABSTRACT

Hepatocellular carcinoma is the most common type of primary liver cancer where Hepatitis positive patients shows higher incidence of HCC, which are treated by liver transplantation and chemotherapy But many patients couldn't continue with the treatment due to the financial burden where an alternative treatment like Ayurveda is the need of the hour. Ayurveda believes in combination treatment which increases the effectiveness of the drug by its synergistic effects. A 56 yr old male patient suffering from hepatocellular carcinoma was treated at Government Ayurvedic College & Hospital Jalukbari who left out conventional treatment and chose Ayurveda as primary treatment. Combination of gomutra arka and bhumiamlaki swaras prescribed for 2months have showed encouraging effect in improving the quality of life and regression of tumour.

INTRODUCTION

Hepatocellular carcinoma is the most common type of primary liver cancer. It is the 6th most common cancer worldwide with 841080 new liver cancer cases in 2018 and the fourth leading cause of cancer related death globally¹. Indeed, Surveillance Epidemiology End Results(SEER) reported HCC as the fastest increasing cause of death in USA since early 2000s and HCC is projected to become the third leading causes of cancer related death by 2030 if this trend continues². Liver cell cancer is more common in males than in females in the ratio of 4:1. The peak incidence occurs in 5th and 6th decades of life but in high incidence areas where HBV and HCV infection is prevalent, it occurs a decade or two earlier. The incidence of HbsAg positivity is higher in HCC patients³. The diagnosis of HCC is usually based on non invasive criteria, although there is a growing need for molecular characterization of the tumour using biopsies in clinical practice. Hepatic resection and liver transplantation have been the mainstay curative treatment in HCC cases. Local ablation with radiotherapy and adjuvant therapy to preclude relapse remains the backbone of non surgical early stage HCC⁴.

In Ayurveda , although we do not get any direct reference of hepatocellular carcinoma but the disease can be treated by the principles of Anukta Vyadhi Vinischaya⁵. The line of treatment is planned depending upon the vitiation of dosha, involvement of dhatu and exposure of the patient to the particular etiological factor. All the nija vikaras are manifested in the human body due to weak digestive fire(mandagni). Because of mandagni, sanchaya of dosha takes place in koshtha. Pakwasaya is the seat of vata, so any abnormality in the organs present in the pakwasaya would suggest kshaya or vriddhi of vata dosha.

But in the present day scenario, we come across many patients of hepatocellular carcinoma and hence, Ayurveda must come along with the conventional treatment for the management of the same to improve the quality of life. The reference of use of gomutra arka in Ayurveda in context of udara roga are available in various texts of Ayurveda. Moreover, herbs like Phyllanthus niruri (Bhumiamlakhi) showed effective results in every liver disorders as per new researches.

Case Examination

A 56 yr old male patient, a known case of hepatocellular carcinoma since September, 2022 from Birubari, Guwahati, Assam attended cancer speciality clinic at Govt. Ayurvedic College & Hospital, Jalukbari, Ghy-14 on 10/7/23. The patient was advised for chemotherapy and liver transplantation by the doctors but he couldn't continue due to financial

instability and as per the record shows he left out conventional treatment and opted for traditional medicine as stand alone treatment . He cares for self but was not able to carry out daily activities due to symptoms like pain abdomen ,severe backache, anorexia, generalized weakness, dizziness etc. After taking a consent for his treatment, a detailed history and necessary clinical examination of the patient was done thereafter. The patient is hypertensive and was diagnosed as HBsAg positive in 2012. One of his elder brother suffered from hepatic cancer. His weight was 60kg, height 5'4", BP- 140/100mm Hg, PR- 69/min. Pallor, clubbing, oedema, cyanosis absent and no any palpable lymph nodes were found. Systemic examination of the patient was done and there was tenderness in the right hypochondriac region and epigastric region. The patient was having a history of constipated stool and burning micturition .He was conscious and oriented to time, place and person. USG(W/A) reports dated 27/9/22 suggested Grade 1 fatty liver, heterochoic lesion 7.5 x 6.2 x 5.7 cm-segment IV/V small renal cortical cyst, Grade 1 prostatomegaly. PET CT Scan report dated 28/9/22 suggests heterogeneous lesion segment VIII & V shows hyperenhancement of AP and mosaic architecture and rapid washout in VPE capsule appearance 72 x 65mm approx. size. AFP(alpha feto-protein) report dated 11/10/22 reveals value of 1010.0mg/dl. ECOG performance score was done which shows a score of 02. Moreover, KARNOFSKY performance score was evaluated and found to be 80.

Treatment Protocol

After a detailed clinical diagnosis, the patient was evaluated to have mandagni and vata-kapha doshas were involved in the progression of the disease. So, Gomutra arka was chosen as the medicine as per the pathogenesis. Moreover, fresh juice of Bhumiamlakhi (Phyllanthus niruri) was chosen as it shows results in liver disorders. The patient was prescribed with Gomutra Arka in an appropriate dosage of 20ml twice daily after food and fresh juice of Phyllanthus neruri(Bhumiamlaki swaras) 15ml once daily empty stomach for 2 months(Table 02). A complete vegetarian diet was advised with fresh vegetable and fruit juices. The patient continued his treatment regularly and came for follow up at the end of 2 months. In the next follow up visit, all the clinical assessment were done like general and systemic examination and status of earlier complaints or new fresh complaints were noted. He was advised for tumor marker AFP test and CT Scan of Abdomen. But due to financial instability, he couldn't perform PET CT and hence was asked to do Ultrasonography whole abdomen.

Outcome

After continuing Ayurvedic treatment for 2 months, the patient showed improvement in the quality of life. The patient

underwent AFP (alpha feto-protien) twice since the start of our treatment. At the beginning of the treatment, AFP was 1010 mg/dl and after 2 months of treatment, it came out to be 2.51mg/dl, hence a significant reduction in the level of AFP was seen (Table 01). Also, USG W/A report before the treatment revealed tumor size of 7.2 x 6.5 cm and after 2 months of treatment revealed size of 5.8 x 5.5 cm which signifies a reduction in the size of the tumour as compared to earlier (Table 01). Also, it was evident from the reports that the tumour has not spreaded to other sites of the body other than the primary site as per the reports. His physical performance on ECOG showed improvement from 02 to 01 (Table 03). He is now relieved from symptoms like abdominal pain, low backache, generalized weakness, anorexia etc. Similarly, his KARNOFFSKY score showed improvement from 80 to 90. (Table 04)

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

Table 01-

NAME OF THE INVESTIGATION	BEFORE TREATMENT	AFTER TREATMENT
AFP(alpha feto protein)	1010.0 mg/dl (11/10/22)	2.51 mg/dl (15/9/23)
USG W/A	Tumour size – 7.2 * 6.4 cm (27/09/22)	Tumour size- 5.8* 5.4 cm (14/10/23)

DISCUSSION

The present case report shows effective treatment by an Ayurvedic combination of Gomutra Arka and Bhumiamlaki swaras in a certain case of Hepatocellular carcinoma. The patient after being diagnosed as hepatocellular carcinoma, his quality of life has been deteriorated due to the poor diagnosis and lack of treatment. But after the intervention of Ayurvedic medicine, the result was encouraging. We observed that the quality of life in the patient was improved and the carcinoma was stable on the primary site. Gomutra Arka is a distillate form of cow's urine. It helps to improve the quality of life as it prevents the pathogenic effects of free radicals which cause damage to the cells. It has got immunomodulator activities which enhances the immune-competence and improves general health of an individual⁵. Also, it also has apoptosis inhibitor which reduces apoptosis in lymphocytes and help them to survive, thus the body can avail the tumor fighting abilities⁷. The logic behind use of gomutra arka in this case was Gomutra is Agnidipana, and kapha-vata nashak. As per Sushrut, gomutra is indicated in shula, gulma, anaha, udara roga⁸. Out of these, shula and anaha caused due to vata vriddhi was seen in the patient. Bhumiamlaki is a medicinal plant which is useful in the treatment of various liver disorder and scientifically reported for various activities like anti-oxidant, immunomodulator, hepatoprotective and anti-hepatocellular carcinoma. In Ayurveda, bhumiama acts as rochana, mutrala, kapha-pittasamak, dahanashuni, trishna, vishahara⁹. A dose of 15-20 ml of bhumiama juice taken on empty stomach helps to stimulate the agni, digests the toxins, acts as an appetizer, increases the bile secretion and restores cell¹⁰. The combined effect of gomutra arka and bhumiamlaki swaras has showed tremendous result in the management of hepatocellular carcinoma and improving the quality of life.

CONCLUSION

From the present case it may be concluded that by using Gomutra Arka and fresh juice of Phyllantus neruri in combination in certain case of hepatocellular carcinoma for 2 months, the quality of life of the patient got improved and further showed regression of the tumour.

Table 02

Sl no	Name of the medicine	Dosage	Frequency	Main ingredients	Vehicle (anupana)
01	Gomutra arka	20ml	BD after food		Cow's urine distillate
02	Bhumiamlaki swaras	15ml	OD empty stomach		Fresh expressed juice

Sl no	No of visits	ECOG Score
01	01	02
02	02	01

Table 03- Ecog Performance Score

Sl.no	No of visit	KARNOFFSKY Score
01	01	80
02	02	90

Table 04- Karnoffsky Performance Score

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