



Ayurvedic conservative management in a metastatic prostate carcinoma patient undergoing palliative hormone therapy- A case report

Deepthy Susan Tharacheril^{1*}, Abdul Shukkoor M.M.²

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ABSTRACT: Carcinoma of prostate is the most common malignant tumour in men after 65 years of age. Different modalities of modern treatment are available in present era, but when at diagnosis stage itself if the case is having excessive metastasis, the treatment options will be limited. Hormone therapy is a part of standard of care for advanced and metastatic prostate carcinoma. Ayurvedic conservative treatment with Shilajatu Rasayana in Gugguluthiktaka Kashaya in the palliative stage of metastatic adeno carcinoma of prostate in a patient of 73 years is presented here.

Key words: Ayurveda case report, Metastatic prostate carcinoma, Hormone therapy, Shilajatu rasayana, Gugguluthiktaka kashaya

INTRODUCTION

Prostate cancer is the most common non cutaneous cancer in men. Cancer incidence increased for prostate cancer by 3% annually from 2014 through 2019 translating to an additional 99,000 new cases.^[1] Carcinoma prostate occurs in peripheral zone in prostatic gland proper commonly in posterior lobe. Prostatic carcinoma is an adenocarcinoma where there is loss of myoepithelial cell layer which normally surrounds the prostatic glands. Screening is performed with blood test PSA, a serine protease and digital rectal examination. Next level of investigation is TRUS (Trans rectal ultrasound) guided biopsy of prostate. Histological grading is done with Gleason grading system on a scale of 1 to 5 with 1 being most well differentiated and 5 being the least well differentiated.^[2] Imaging studies like CT and bone scans are used to rule out metastatic disease in high-risk patients.

Radical prostatectomy and pelvic lymph node dissection, image modulated radiation therapy (IMRT) and brachytherapy are the standard of

care for modern curative treatments. For higher risk prostate cancer patients both surgery and IMRT with androgen deprivation therapy provide excellent cancer control. Cryotherapy and high intensity focused ultrasound (HIFU) are the emerging options. The concept of hormonal manipulation in prostate cancer was first introduced in 1941 by Huggins and Hodges.^[3] Today's standard of care for advanced metastatic prostate cancer includes gonadotropin releasing hormone agonists, second generation non-steroidal AR antagonists and the androgen biosynthesis inhibitor.^[4] Ayurvedic *rasaayana* therapy can play a vital role in decreasing the disease progression and improving general health and wellbeing of the patient.

PATIENT INFORMATION

A 73 year old male patient was presented to Department of Salyatantra OPD, Government Ayurveda college, Tripunithura on 02-11-2023 with the complaints of difficulty and increased frequency of micturition, irregular bowel habits, nausea, vomiting and weakness. About five

1. Assistant Professor, Department of Salyatantra, Government Ayurveda College, Tripunithura

*Corresponding author; Email: deepthytharacheril@gmail.com

2. Professor & HOD, Department of Salyatantra, Government Ayurveda College, Tripunithura

months back patient noticed a swelling over the left side of neck and another one over the left side of groin along with difficulty and increased frequency of micturition. He consulted allopathic doctor and did PSA evaluation, then USG and PET scan were done and the diagnosis of metastatic adenocarcinoma of prostate was made. At that time patient experienced severe lower abdominal pain along with inability to pass urine and was catheterized for one week in allopathic hospital and got some relief. His oncologist advised not to go for surgery or radiation, but to undergo palliative hormone treatment. He was under hormone injection therapy in every three months. During this period, patient experienced incomplete voiding of faeces, nausea, vomiting, severe weakness, loss of weight, difficulty in micturition along with increase in its frequency. Hence, he decided to take ayurvedic treatment.

Treatment and drug history

1. Cyclical dose 8 injection -Leupride Depot(IM)-11.25mg every 3 months interval
2. Enzalutamide cap 40mg 2-0-2 A/F
3. Juxtrapro 0-0-1A/F

History of past illness: Nil

Family history: No relevant family history

Personal history: The patient worked as sale tax officer and his diet was mixed. He had no smoking or alcohol intake history.

- Bowel- Irregular
- Appetite- Less
- Micturition-Increased frequency
- Sleep- Disturbed

Clinical findings

Table 1 General examination	
Build and Nourishment	Lean & under nourished
VITALS	
Pulse rate	78/min
Heart rate	78/min
Respiratory rate	20/min
Blood pressure	120/90 mmHg
Temperature	97.2 F

Table 2 General signs and symptoms	
Pallor of skin	Present
Icterus	Slight scleral icterus present
Cyanosis, Clubbing	Absent
Lymphadenopathy node enlargement	Left side cervical lymph
Head	Normocephalic, no abnormality detected
Thorax, abdomen	Slight distension of abdomen
Upper limb, lower limb, spine	No abnormalities detected

Systemic examination

Per rectal examination of prostate in lithotomy position: Prostate was stony hard, nodular, and irregular with loss of median groove.

Table 3 Time line		
Sl.	Complaints	Duration/Date
1.	Swelling in left side of neck and left side of groin	Since June 2023
2.	Difficulty in passing urine	Since June 2023
3.	Increased frequency of micturition	Since June 2023
4.	Irregular bowel habits	Since August 2023
5.	Nausea and vomiting	Since August 2023
6.	Severe weakness and loss of weight	Since September 2023

Diagnostic assessment

Blood routine, urine routine, DRE, PSA,RFT,LFT, Serum electrolytes, USG Abdomen,

Histopathology of cervical lymph node,Ga-68 PSMA whole body PET CT Imaging

Table 4 Haemoglobin				
Assessment	27-10-2023	03-11-2023	15-03-2024	01-08-2024
Haemoglobin	10.3 gm/dl	9.7 gm/dl	7.6 gm/dl	8.8 gm/dl

Table 5 PSA			
Assessment	07-06-2023	19-07-2023	18-07-2024
PSA	270 ng/ml	288 ng/ml	46.07 ng/ml

Table 6 LFT		
LFT assessment	03-11-2023	01-08-2024
Bilirubin direct	0.2mg%	0.2mg%
Bilirubin total	0.6mg%	0.7mg%
SGOT	58U/L	102U/L
SGPT	40U/L	33U/L

Table 7 RFT				
RFT Assessment	03-11-2023	08-11-2023	20-11-2023	01-08-2024
Blood urea	45 mg/dL	52mg/dL	50mg/dL	61mg/dL
Serum creatinine	2.2mg/dL	2.3mg/dL	2.3 mg/dL	2.3mg/dL
Serum uric acid	5.5mg/dL	4.2mg/dL	4.0mg/dL	4.2mg/dL

Left level III&IV Cervical lymph node biopsy: on 29-05-2023

- Metastatic adenocarcinoma
- Consistent with metastatic carcinoma prostate Ga-68 PSMA whole body PET CT Imaging: On 07/06/2023

Impression

- PSMA Avid lesions involving entire prostate gland & involving bilateral bulky seminal vesicles- primary prostatic malignancy with periprostatic invasion.
- PSMA Avid discrete & conglomerate left cervical and abdominopelvic lymph node metastasis;left cervical level II, level III, level IV lymph nodes.

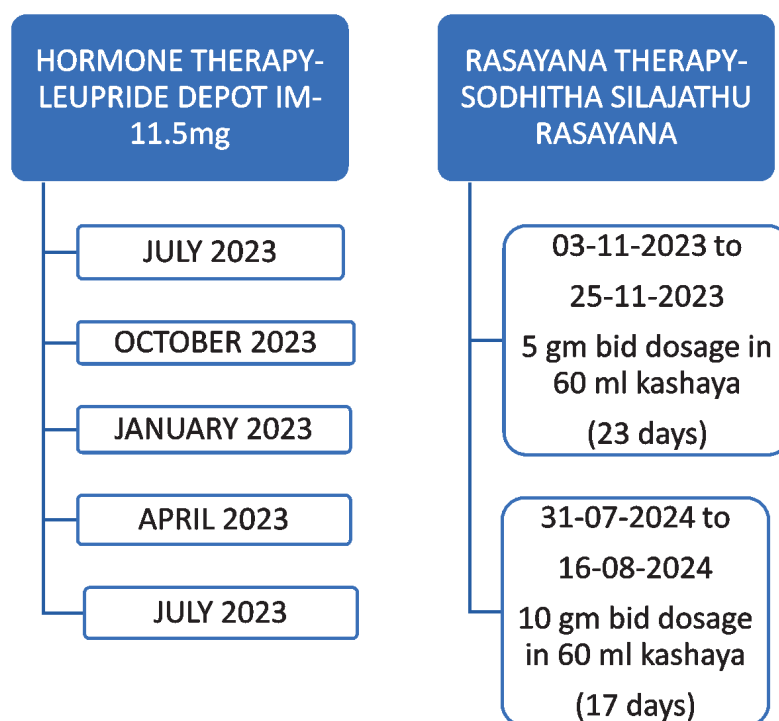
- Right & left internal, external & common iliac lymph nodes, para aortic, retrocaval, aortocaval, retrocrural lymph node metastasis
- PSMA expressing excessive skeletal metastasis
- C7 transverse process, right scapula, sternum, 1st sternocostal junction on right, D8, D10, D11, L4, L5, Right 4th anterior rib, right 7th posterior rib, left D12 costovertebral junction, left d12 posterior rib, almost all pelvic bones, bilateral femurs, L5, S1 vertebra.

THERAPEUTIC INTERVENTION

Patient was treated with the following medicines for 23 days: from 03-11-2023 to 25-11-2023

Table 8 Medicines		
1	Sodhitha Shilajatu Rasayana in Gugguluthiktaka Kashaya	5g rasaayana in 15ml kashaya mixed with 45ml of lukewarm water at 6 am
		5g rasayana in 15ml kashaya mixed with 45ml of lukewarm water at 6 pm
2	Kanchanara guggulu	2-0-2 before food
3	Triphala tablet	2-0-2 before food
4	Annabhedhi sindooram capsule	1-0-1ml after food
5	Chandraprabha gulika	2-0-2 after food

Figure 1
Presentation of duration and frequency of therapies



Rasayana therapy was given 23 days in November 2023 and 17 days in July 2024.

Follow up and Outcome

Patient regularly reported to OPD for consultation once in every month for 8 months and again got admitted here on 31-07-2024 for the same complaints. In the second admission patient is given Sodhitha Shilajatu rasayana with Gugguluthiktaka Kashaya with an increase in dosage i.e. 10g bid dosage for 17 days from 31-07-2024 to 16-08-2024.

As the case is metastatic adeno carcinoma, exacerbation of symptoms got alleviated by hormonal therapy along with *rasayaana* therapy. Side effects of hormone injections such as nausea, vomiting, irregular bowel habits and general weakness got significant improvement after the treatment. The quality of life improvement was evident after the treatment.

FACT -P (Functional Assessment of Cancer therapy- Prostate) scoring tool is commonly used

to assess general and disease specific quality of life in prostate cancer patients. Physical well-being, Social and family well-being, Emotional well-being, Functional well-being, and Prostate cancer specific concerns, all the five sub scales got improvement after these Ayurvedic conservative treatment along with palliative hormonal treatment. But this a single case study scoring was not done after the treatment.

DISCUSSION

Silajatu (Mineral pitch) is a herbo mineral compound with many beneficial therapeutic properties.^[5] It has *kashaaya tikta rasas*, *seeta-veerya*, *tridosha-hara*, *vrshya*, *balya*, *mootrala*, *lekhana*, *yogavaahee* and *rasaayana* properties.^[6] It has many rich, bioactive molecules (nutrients, iron manganese, phenols etc.) acts a powerful adaptogen in the wear and tear phenomenon of aging process.^[7] Oral

administration of *silajatu* for 15 days showed dose dependent inhibition of prostate enlargement induced by testosterone in rats.^[8] The compounds identified from the volatile oil of *Gulguluthikthaka Kashaya* are Carvone, Beta-caryophyllene, Valencene, Cubenol, ar-Curcumene, Cedrol, Guaiol, Cembrene, Thunbergol, Guggulusterone, Mukulol and^[6]-Paradol. The identified terpenoids found to have wide spectrum of biological activity so the synergistic effect between the different components present in the volatile oil may add its biological activity towards inflammation related diseases.^[9]

Kanchanara Guggulu is an ayurvedic formulation having properties of *vaata-kapha dosha* pacification, *lekhana* and *sotha-hara* (anti-inflammatory).^[10] Because of these properties, Kanchanara Guggulu may check the changes of prostatic tissues and regulates the urinary function.^[11]

Triphala tablet has good effect in maintaining the regular bowel habits in the patient. Annabhedhi Sindooram capsule was given in the fatigue and low haemoglobin condition. According to *Saarnagadhara Samhita's* formulation, which was endorsed by Ayurvedic Formulary of India Chandraprabhavati (CPV) contains 37 herbal-mineral components and is indicated in various diseases like *mootrakrcha*, *aanaaha*, *vibandha*, *mootraaghaata*, *arbuda* etc.^[12]

PSA is an extremely reliable indicator of recurrence or progression. Ayurvedic conservative management with *Sodhitha Silajatu-rasayana* with *Gulguluthikthaka Kashaya* can have an effect in lowering the PSA value in the patient. Once prostate cancer metastasizes, it is no longer curable. Medications that lower the testosterone or androgen receptor blockers are able to control the disease. Musculoskeletal effects of hormonal therapy include osteoporosis, decrease in muscle mass and fatigue. Gynecomastia, weight gain and

erectile dysfunction are also seen, as are haematologic effects.^[13]

There is some evidence that hormone-naïve patients with prostate cancer have BMD lower than expected for their age,^[14] suggesting a further risk in these men with the administration of hormonal treatment for prostate cancer, probably doubling the risk of osteoporotic fractures. There lies the significance of these adjuvant ayurvedic medicines which has both curative and *rasaayana* properties helped in reducing PSA values, improved micturition and bowel habits, which might help the patient to do his daily routines without help, removing fatigue and hence accelerate his general wellbeing. In addition to modern treatment, ayurvedic conservative management will increase the life expectancy of the patient or improve the quality of life.

Patient prospective

Patient was satisfied with the treatment protocol and got much clinical betterment when he got discharged. Patient claimed that his quality of life got improved after the treatment. As the patient himself is under hormone injection therapy, he revisited the OPD once in every month for 8 months and again was admitted for the same management on 31/07/2024. After the second IP admission also, he was extremely satisfied as he was able to do his daily activities alone and much improvement in general strength and bowel habits.

CONCLUSION

In advanced stage of metastatic prostate carcinoma, when treatment options reduce, adjuvant ayurvedic conservative treatment can provide much to slow the progress of cancer, alleviate their symptoms and thus adds much to the overall quality of life.

Declaration of patient consent

The patient has given written consent for the publication of this case report, along with permission to use his investigation reports.

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