

Therapeutic Effect of Ayurveda Medicines in the Management of Post-Hemicolectomy Case of Adenocarcinoma of Ascending Colon – A Case Report

Case Report

Aaditya Karve¹, Parikshit Shirode^{2*}, Omprakash Dave³

1. PG Scholar, 2. Professor, 3. Professor and HOD, Department of Shalya Tantra, Parul Institute of Ayurveda, Parul University, Waghodia, Vadodara, Gujarat, India.

Abstract

Life on earth has been modernized with new avenues of modern science and technology. This luxurious life also leading to worries and tension and in consequence a number of life style related disorders like cancer, renal diseases, AIDS, Parkinson's disease, Auto-immune disorders, SLE etc. Cancer is more serious concern because of its increasing incidence with high mortality and morbidity rate. In *Ayurveda* we found many conditions which mimic the symptoms of cancer and detailed knowledge regarding its management also available. Colon cancer is third leading diagnosed type of cancer. Different treatment protocols available for management depending on the stage of cancer. Treatment modalities most commonly used are surgery, radiotherapy and chemotherapy. However, the disadvantage of radiotherapy and chemotherapy are the development of therapy related temporary and permanent adverse effects. Here a case of 42 years old male patient post hemicolectomy for adenocarcinoma of right colon who refused for chemotherapy, treated with *Ayurveda* medications having *Rasayan*, *Jeevaniya*, *vatahara* properties like *Sanjivani vati* which have shown remarkable results and also gained 8 kg weight during treatment is discussed here.

Keywords: Cancer, Chemotherapy, *Rasayan*, *Sanjivani vati*, *Ayurveda*, Adenocarcinoma.

Introduction

The word cancer is derived from word CRAB. Cancer is a hyper proliferative disorder that involves transformation, deregulation of apoptosis, proliferation, invasion, angiogenesis and metastasis. Cancer may be regarded as a group of diseases characterized by abnormal growth of cells, ability to invade adjacent tissues and even distant organs and the eventual death of the affected patient if the tumour has progressed beyond the stage when it can be successfully removed (1). In modern medicine considerable number of patients has to go through distressing treatments like chemotherapy and radiotherapy for cancer management. Though cancer chemotherapy is highly effective in many cancers, but side-effects of chemotherapy are severe in many patients like myelosuppression, anorexia, weight loss, mucositis, fatigue, nausea, vomiting and diarrhoea (2-4). Thus, patients can't take chemotherapy cycles on scheduled date. Many causative factors responsible for cancer like tobacco, alcohol intake, smoking, genetic factors, toxins, radiations, stress, exposure to chemicals etc.

Description regarding Cancer (*Asadhya Arbuda*) is also found in the most ancient treatises of *Ayurveda*

i.e., *Charak Samhita* and *Sushruta Samhita*. In Ayurvedic concept, according to '*Charaka*' and '*Sushruta Samhitas*' *Arbuda* is described as inflammatory or non-inflammatory swelling and mentioned either as '*Granthi*' (minor neoplasm) or '*Arbuda*' (major neoplasm) (5) or non-healing ulcers i.e., *Asadhya vrana*. (6)

Maximum of FDA approved anticancer drugs are themselves toxic, immunosuppressive and cytotoxic. Therefore, Ayurvedic medicines can be beneficial as a supplementary to modern medicine, even can be given alone for a complete cure (7). *Ayurveda*, being the holistic science and way of Life, has the potential to prevent and cure the Cancer. Ayurveda can help preventive as well as curative approach in cancer management. During chemotherapy and/or radiotherapy *Ayurveda* can help to reduce the side-effects of the treatment and assist the body in its recovery process. The therapeutic approach of *Ayurveda* has been divided into categories as *Prakritisthapani chikitsa* (health maintenance), *samprapti vighatan chikitsa* (to break aetio-pathogenesis), *Roga nashani chikitsa* (disease cure), *Rasayana chikitsa* (restoration of normal function) and *Naishthiki chikitsa* (spiritual approach). (8)

The incidence of cancer has gradually been increasing over the last decades. Cancer is the second leading cause of death behind heart disease in USA. 10 million new cases of Cancer are diagnosed each year and 7.9 million deaths occur from Cancer each year worldwide, which is 13% of the total death (In the year 2007) (9). Colon cancer is the second leading cause of

* Corresponding Author:

Parikshit Shirode

Professor, Department of Shalya Tantra,
Parul Institute of Ayurveda,
Parul University, Waghodia,
Vadodara, Gujarat, India.
Email Id: parikshit.shirode260038@paruluniversity.ac.in

cancer death. 8% of all new cases of cancers are of colon cancers. The WHO estimates an increase of 77% in the number of newly diagnosed cases of Colo-rectal cancer and an increase of 80% in deaths from Colorectal cancer by 2030.(10)

Case report

A 42-year-old Hindu male patient having complaints of altered bowel habits, loose motions-semi solid formed, weakness, decreased appetite, weight loss, mild abdominal discomfort and fatigue approached to the surgeon. After examination patient advised for colonoscopy. Colonoscopy finding of circumferential stricturing growth suggestive of cancer of Colon (Fig no.1). PET scan revealed short segment ascending colon circumferential wall thickening with mild luminal narrowing suggestive of neoplastic origin with regional nodal spread (Fig no.2). HPE finding confirms as well differentiated adenocarcinoma (Fig no.3). Onco-surgeon advised RT hemicolectomy and ileo-colic anastomosis with excision of regional lymph nodes. Surgery was uneventful and patient was discharged with oral medications for a week. BUT patient was having complaints of anorexia, nausea, fatigue, generalized weakness, mild abdominal pain, improper bowel habit, insomnia etc. Later patient advised for chemotherapy as a preventive as well supportive management by Onco-physician.

Patient was not ready for chemotherapy due to its severe complications and hence came to Parul Ayurveda Hospital, Vadodra for *Ayurvedic* management.

On examination of patient, *Nadi-72/min, Regular, kapha- vataj; Mutra-4-5 times per day; Mala-Not satisfactory bowel habit; Jiwha-Sama; Shabda-Prakrita; Sparsha-Ruksha; Drika: Prakrita; Aakruti-madhyam; Pallor-present (+); Nail-pale, no clubbing; Skin-dry in nature; Hair-brittle in nature; Agni: Mandagni; Koshtha-Krura; BP- 120/70; RR-17/min; weight – 45kgs*

P/A – On inspection, scar of Right middle paramedian incision. No distension of abdomen. On palpation, mild tenderness on right lumbar and iliac region without any palpable mass. Normal bowel sound heard on auscultation.

Routine blood investigations like CBC, RFT, LFT, Urine R/M, RBS were done and all WNL.

This is a single case study and consent was taken from the patient & relatives.

Proper plan of Ayurveda management via oral route was prescribed. Patient was not taking any modern medicines by oral or parenteral route during this treatment period.

Ayurvedic diagnosis as per complaints was *shashtrakarmauttar annavaha srotas karmahani*.

Line of management decided as per following principles

- *Prakriti sthapani Chikitsa*
- *Rasayana chikitsa*
- *Naishthiki chikitsa*

Treatment Regimen

1. *Sanjivani vati 250mg + Yastimadhu Ghanavati 500mg Vyanodan Kala (1-0-1 after food) with Takra*
2. *Panchamruta Parpati 125mg + Dadimadi Ghruta 15ml Saman kala (middle of food intake, both lunch and dinner)*
3. *Vishnusahasra-namachanting 2 times a day*
4. *Pathya-Apathya instructions were explained.*

This course was prescribed for 90 days with advice to inform if any appearance of new or untoward symptom/s appears during this treatment period.

Patient was advised for lab investigations (CBC, RBS, SGPT, SGOT, Sr. Creatinine, blood Urea) once in a month.

Telecommunication with patient for follow up was done on every 15th day.

Pathya : laghu- supachya ahar; Freshly prepared food items only; Advised milk, buttermilk, ghee, rice, green gram soup, vegetable soup, puree, chapati, fruits like apple, pomegranate, papaya, salad in diet. Luke warm water.

Apathya: Ready to use, packed food items. Oily and spicy food. Cold drinks. Bakery items, Diet in excess quantity (Atyahar), day time sleeping, excessive stress to avoid

Observations

In the beginning patient had multiple complaints post surgery like anorexia, nausea, fatigue, generalised weakness, significant weight loss, abdominal pain, improper bowel habit, belching, insomnia etc. Patient found significant relief in almost all symptoms within 45 days. After 90 days patient was advised only *Dadimadi Ghrita* 15ml bd in food for 3 months. After 8 months from previous pet scan repeat PET scan was done which was absolutely normal (Fig no.4). Patient is asymptomatic till date. Patient had significant weight gain of 6 kgs within initial 3 months of ayurveda treatment and total of 8 kgs within 6 months of treatment. (From 45kgs to 53kg). Patient feeling more energetic, calm and stress-free since starting of treatment and chanting *Vishnusahasranama*. Patient is having peaceful and undisturbed sleep. Observations are made as per patient's response on telephonic conversation. Observation chart (Table no.1) and blood investigation details given in table. (Table no. 2).

Discussion

Colon cancer and its most visible symptoms can be correlated with *dushti lakshana's (clinical features of vitiation) of Purishavaha srotas (11) and Annavaha srotas (12)*. Along with-it *rasa, raktadi dhatu, kapha pradhan tridosha, dhatwagni* as well as *jatharagni* and *manas* are the factors which get affected. *Vata dosha* is *Pradhan (13)* among all *doshas* responsible for disease manifestation. *Vata dosha* is supreme among all factors as *pitta dosha, kapha dosha, other dhatu's and mala's* gain momentum due to it (14). *Pachak pitta, Panchapran, Kledak kapha (15)* are the main components of GI track. These all factors should be considered before management of colon cancer. Even

Table 1: Timeline

Symptom	17 th Feb 2022	28 th Feb 2022	18 th Mar 2022	2 nd Apr 2022	17 th Apr 2022	18 th may 2022	16 th Jun 2022	15 th Jul 2022	17 th Aug 2022
Anorexia	+++	++	+	N	N	N	N	N	N
Nausea	++	+	N	N	N	N	N	N	N
fatigue	++	++	+	+	N	N	N	N	N
Generalized weakness	++	++	+	N	N	N	N	N	N
Abdominal pain	+	+	+/-	+/-	N	N	N	N	N
Belching	++	+	+/-	N	N	N	N	N	N
Improper bowel habit	++	++	+	N	N	N	N	N	N
insomnia	++	++	+/-	+/-	N	N	N	N	N
Depression	++	+	+/-	+/-	N	N	N	N	N
Weight in kgs	45	46	47	49	50	51	52	52	53

(N* - no any complaint, satisfactory results) (+/- Occasional, on-off complaint).

Table 2: Blood parameters

Parameter	10/01/22	14/01/22	16/02/22	18/03/22	17/04/22	18/05/22	16/06/22	17/08/22
Hb%	12.7	12.3	11.8	12.4	13.1	13.7	14.2	13.9
TLC	5500	10200	7700	7720	7100	6890	6700	7200
Platelets	320000	235000	267900	289000	312000	325000	321000	318000
Urea	21	24	26	25	23	24	22	21
Creatinine	1.2	1.2	1.1	1.2	1.1	1.0	1.0	1.0
SGOT	18	24	27	25	24	23	23	24
SGPT	20	23	22	20	22	21	19	20
RBS	91	80	104	95	89	94	89	97

researchers have claimed *Rasayan Chikitsa* explained in *ayurveda* is having similar principle of immunotherapy (16) and *Rasayan chikitsa* can be effectively prescribed in patients suffering/ healing from cancer. Healthy and potent cells can fight with cancer cells and also improve general health of the patient. The first line of management explained by *Acharya Sushruta* in the

context of ‘*Granthi*’ (minor neoplasm) or ‘*Arbuda*’ (major neoplasm) *chikitsa* it-self highlight the aim to improve the *rogibala* i.e., strength and immunity of the patient which ultimately reduce the *vyadhibala*. (17)

Hence the plan of the management explained in Table no. 3

Table 3: Plan of the management

Sr. No	Chikitsa Sutra	Purpose
1	Prakriti sthapani chikitsa (health maintenance), and	To balance the vitiated doshas specially <i>vata</i> and <i>kapha</i> dosha, <i>chikitsa of agni</i> , <i>chikitsa of purishvahasrotas</i> and <i>annavaha srotas</i>
2	<i>samprapti vighatan chikitsa</i> (to break aetiopathogenesis),	
3	<i>Roga nashanichikitsa</i> (disease cure),	Removal of diseased part i.e., surgical intervention (already done) and other symptomatic management.
4	<i>Rasayana chikitsa</i> (restoration of normal function)	<i>Apunarbhava</i> (prevention of recurrence) and improvement of the immunity
5	<i>Naishtiki chikitsa</i> (spiritual approach).	To increase mental and spiritual power. (<i>satvavajaya chikitsa</i>)

Sanjivani vati: *Sanjivani vati* (18) is a well-known *Ayurvedic broad spectrum* preparation is being used to treat disorders of the gastro-intestinal tract, respiratory tract, fever, and inflammatory joint disorders. *Sanjivani vati* has been prescribed especially for *Ajeerna*, *Gulma*, *Visuchika*, *Sarpadansta* & *Sannipata*. It has excellent capacity to cure the *Kosthagata vyadhi* (Gastrointestinal) especially *Ajeerna* (Indigestion), *Agnimandhya* (suppression of digestive fire), *Shoola* (Abdominal pain), *Gulma* (abdominal distension) and *Visuchika* (dysentery) empowered by its unique combination of ingredients. *Bhallataka* and

vatsnabh having *vyavayi* (fast diffusing) - *vikasi* properties which reaches up to minute cells in the body and also work as vehicle (*yogavahi*) for *yashtimadhu* etc other medicines. *Bhallatak rasayana* explained by *Acharya Charak* shows its importance in *kaphaja rogas* (19). Most of its component helps in restoring and maintaining the healthy milieu of abdomen. Having Analgesic, Antispasmodic, Carminative, Anti-diarrhoeal, Gastroprotective, Antitussive, antioxidant, hepatoprotective, Emmenagogue, Stimulant, Stomachic, Vermifuge, Antimicrobial, Antipyretic and Immunomodulator properties. Most of the ingredients

Aaditya Karve et.al., Ayurveda Management of Post-Hemicolectomy Case of Adenocarcinoma

having proven anticancer properties. *Sanjivani vati* works magically in such GIT related complaints and even in cancer, ulcerative colitis, Crohn’s disease etc. serious diseases. It is having *vishaghna* properties which also work by reducing the toxins which produced by cancer cells. Cow urine (*gomutra*) patented (U.S. Patents No.6896907 and 6410059) for its medicinal properties recently, particularly for its use along with antibiotics for the control of bacterial infection and fight against cancer (20) which used as *bhavana dravya* in preparation of *sanjivani vati*. It also used as *krimihara*, *Jvarghna*, *Medhya* and *Rasayana aushadhi*.

Yashtimadhu ghanavati: *yashtimadhu* is considered one of the best *sheeta*, *Madhura rasa aushadhi* specially *vata-pitta shamak* properties along with healing, antiulcer, anti-inflammatory, antibacterial, anticancer, antimetastatic (21), antioxidant properties. *Yashtimadhu* is well known for its *rasayan* properties. It’s having *chakshushya*, *balya*, *varnya*, *shukrala*, *medhya*, *snigdha*, *keshya*, *vrana ropana*, *shothaghna*, *vishaghna* etc. properties.

Dadimadi ghruta: it is specially indicated *pandu*, *gulma*, *mudhavata*, *vata-kaphaja* diseases. It is having properties such as *deepana*, *pachana*, *raktavardhana*, *rasayan* (22), *hrudya*. It is useful in *annavaha sroto vikar* like *grahani*. (23)

Panchamruta parpati: Therapeutic action of *parpati* it is recommended for the ailments of the GIT like *agnimandya*, *amlapitta*, *atisara*, *grahani*, *aruchi*, *chardi* etc. *Parpati Kalpana* is widely used in all GIT diseases (24) and considered as *sakshat Vanhikruta* which means helpful to improve *jatharagni*. It is specially indicated *Grahani roga*.

Takra: *Takra* is one among important food ingredients in almost all Indian citizens. Consuming

buttermilk i.e., *takra* on regular basis offers many healthy benefits. Buttermilk is having antioxidant, anticancer properties. *Takra* is indicated in *shotha*, *atisara*, *arsha*, *gulma*, *krimi*, *prameha*, *udara roga*, *pandu roga*, *chardi* etc. (25)

Vishnusahasranama: The impulses generated by chanting various mantras create vibrations in each cell of body and brain. Chanting *Vishnu sahasranama* regularly will help to achieve personal as well professional goals, improves concentration, relaxes the mind, and reduces stress levels, depression and anxiety. (26)

Key points

Bhallataka and *vatsnabh* having *vyavayi - vikasi* properties which reaches up to minute cells in the body and also work as vehicle (*yogavahi*) for *yashtimadhu* etc other medicines.

Bhallatak rasayana explained by *Acharya Charak* shows its importance in *kaphaja rogas*.

Vishaghna properties of *Bhallataka* and *vatsnabh* (*vishen vishasya nashanam*) helps to eliminate toxins produced by cancer cells in body.

Most component of *Sanjivani* helps in restoring and maintaining the healthy milieu of abdomen and having anticancer properties.

Gomutra which is *bhavana dravya* of *sanjivani vati* patented for anticancer, antimicrobial properties.

Fundamental principle of *Ayurveda* is treatment of *Agni* and it’s done by *Sanjivani* and *parpati Kalpana*.

Rasayan properties of *yashtimadhu*, *dadimadi ghruta* are well known to all.

All medicines show their synergistic action under influence of *Sanjivani vati*.

Table 4: Formulations prescribed and properties as per available texts

<i>Sanjivani vati</i>	<i>Vishaghna</i>	<i>Ajeerna, Agnimandhya, Shoola, Gulma, Visuchika</i>	Gastroprotective, antioxidant, Immunomodulator etc.	<i>Prakritisthapan, roganashan, apunarbhava, rasayana, samprapti vighatana</i>
<i>Yashtimadhu ghanavati</i>	<i>sheeta virya, Madhura rasa, vata-pitta shamak</i>	<i>Balya, rasayana, shukrala, medhya, keshya, vishaghna</i>	antiulcer, anti-inflammatory, anticancer, antimetastatic, antioxidant	<i>Rasayana, to conquer ill effects of sanjivani vati, roganashan</i>
<i>Dadimadi ghruta</i>	<i>Pandu, gulma, grahani, mudhavata, vata-kaphaja diseases Deepana, pachana, raktavardhana, rasayan, hrudya.</i>			<i>Rasayana, balya, sthanik balavrdhani chikitsa</i>
<i>Panchamruta parpati</i>	<i>agnimandya, amlapitta, atisara, grahani, aruchi, chardi</i>		<i>Sakshat Vanhikruta</i>	<i>AgniVardhan, rasayan,</i>
<i>Takra</i>	<i>Madhura, amla, grahi, deepan</i>	<i>shotha, atisara, arsha, gulma, krimi, prameha, pandu, chardi</i>	antioxidant, anticancer	<i>Agnivardhan,</i>
<i>Vishnusahasranama</i>				<i>Naishtiki chikitsa</i>

Conclusion

Ayurveda, the Ancient Indian system of health science describing herbal, herbo-mineral and animal origin medicines for preventing or treating various diseases. These medicines when prescribed in different formulations show remarkable results even in modern era. The exact cause of cancer is not known in most

cases. Modern science is really advanced and many diagnostic aids available for early detection of such dreadful diseases. Different treatment modalities like radical surgeries, chemo-radiotherapy, immunotherapy etc. are available but having certain limitations due to complications and unpredictability regarding recurrence. *Ayurveda* medicines can support such post-

surgical or chemotherapy patients for preventing its adverse effects or even as preventive aspect. The concomitant effects of both the *Sanjivani vati* and *Yashtimadhu ghanavati* along with *Panchamruta Paprpati* and *Dadimadi ghrita kalpana* have complemented at a lot and given encouraging results in the form of body weight gain and relief from other pathognomic symptoms. *Rasayana chikitsa* is special weapon to all ayurveda practitioners. The benefits of this *Rasayana chikitsa* along with *dinacharya*, *rutucharya palan*, *Achar Rasayana* will definitely helpful for achieving healthy and long life. Few cases where patients not willing for such treatments with due consent from patient and opinion of expert from both ayurveda and oncology department can try and evaluate efficacy of ayurveda medicines which can lead to collaborative work in oncology can be fruitful for cancer patients.

This is a single case study and as such may not fully represent mode of ayurveda medicines. It is important to raise awareness and encourage implementation of Ayurvedic therapies for combating such dreadful diseases and suggest an integrated approach in management and treatment. The current study has some limitations and several strengths.

It's a small step in the management of such a dreadful disease. Hence, I request all the fraternity of Ayurveda for guidance to treat the disease more effectively as well as to prevent recurrence of the disease.

References

1. Dash Sanghamitra, Kour Gagan deep, A Critical Review On Cancer WSR To Ayurveda, International Ayurvedic Medical Journal, September- 2015; Volume 3; Page no. 2765-2778
2. Deshmukh Prashant Nareshrao, Talekar Manisha Tatobaji, Effectiveness Of The Ayurvedic Medication In Minimizing The Side Effect Of Oral Chemotherapy In Colon Cancer: A Case Study, Int. J. Res. Ayurveda Pharm. 2017, 8 (5); page no. 59-62
3. Prasanna PGS, Stone HB, Wong RS, Capala J, Bernhard EJ, Vikram B., Normal Tissue Protection For Improving Radiotherapy: Where Are The Gaps? Transl Cancer Res 2012, 1(1):35-48.
4. Surendiran A, Balamurugan N, Gunaseelan K, Akhtar S, Reddy KS, Adithan C, Adverse Drug Reaction Profile Of Cisplatin-Based Chemotherapy Regimen In A Tertiary Care Hospital In India: An Evaluative Study, Indian J pharmacology, feb 2010, 42(1); 40-43.
5. Roopesh Jain, Susmit Kosta, Archana Tiwari, Ayurveda And Cance, Pharmacognosy Research, November 2010; Vol 2 ; Issue 6; page no. 393-394
6. Prasad G. C., Manoranjan Sahu And Deshpande P. J., Concept Of Cancer In Ayurveda, Ancient Science of Life, 1982, Jan-mar: 1(3): 172-176
7. Dash Sanghamitra, Kour Gagan deep, A Critical Review On Cancer WSR To Ayurveda, IAMJ: September- 2015; Volume 3; Issue 9; page no. 2765-2778
8. Subha Ganguly, Ayurveda For Cancer Therapy, World Journal of Pharmaceutical Research, 2 NOV 2014, Vol 3, Issue 9; page no. 1476-1479
9. Ferlay J, Soerjomataram I, Dikshit R, Eser S, Mathers C, Rebelo M, Parkin DM, Forman D, Bray F. Cancer incidence and mortality worldwide: sources, methods and major patterns in GLOBOCAN 2012. Int J Cancer. 2015 Mar 1;136(5):E359-86. doi: 10.1002/ijc.29210. Epub 2014 Oct 9. PMID: 25220842.
10. Gemma Binefa, Francisco Rodriguez-Moranta, Alex Teule, Manuel Medina-Hayas, Colorectal cancer: From prevention to personalized Medicine, World J Gastroenterology, 2014 June, 14; 20(22): 6786-6808.
11. Yadavji Trikamji Acharya, Charak Samhita by Agnivesha, Chaukhamba Publications, New Delhi, 2022, Viman sthan 5/8, page no. 251
12. Yadavji Trikamji Acharya, Charak Samhitaby Agnivesha, Chaukhamba Publications, New Delhi, 2022, Viman sthan 5/8, page no. 250
13. 13. Yadavji Trikamji Acharya, Charak Samhita by Agnivesha, Chaukhamba Publications, New Delhi, 2022, Sutrasthan, 12/ 8, page no. 79
14. Prabhakar Rao G., Sarangadhara Samhita of Sharangdharacharya, first edition 2013, Chaukhamba Publications, New Delhi Purva khanda, 5/25 Page no. 23-24
15. Deepak Yadav Premachand, Ashtang Hridya of Vagbhata, Chaukhamba Surbharati Prakashan, Sutrasthan, 12th chapter page no. 380-413
16. Dhatri D., Jayanthi. C, Santhosh Patil, Immunotherapeutic Effect Of Rasayanas In Cancer: A Conceptual Study: IJAPR, DEC 2021, VOL 9; ISSUE 12; page no. 92-97
17. Vaidya Yadavji Trikamji Acharya, SUSHRUT SAMHITA of SUSHRUTA, Chaukhamba Orientalia, Varanasi, 2021, Chikitsa Sthan, 18/3, page no. 470
18. Deepika Tewari, Vimal Tewari, Kuldeep, Suhas Chaudhary and S.K. Tiwari, A Scientific Review on Sanjivani Vati with special reference to its Pharmacological Actions, Therapeutic Indications and Pharmaceutics 2018 Green tree Group Publishers© IJAPC Int J Ayu Pharm Chem 2018 Vol. 9, issue 3, page no. 82-92
19. Yadavji Trikamji Acharya, Charak Samhita by Agnivesha, Chaukhamba Publications, New Delhi, 2022, Chikitsa Sthan, 1st chapter, 2nd pada, 19th shloka, page no. 383
20. Randhawa GK. Cow urine distillate as bio enhancer; J Ayurveda Integr Med., 2010, Oct-Dec; 1(4): 240-241
21. Tuli HS, Garg VK, Mehta J.K., Kaur G, Mohapatra R.K. Dharma K, Sak K, Licorice (*Glycyrrhiza glabra*) Derived Phytochemicals Target Multiple Signaling Pathways to Confer onco-preventive and onco-therapeutic effects, Onco Targets and Therapy, 30 NOV 2022, 15: 1419-1448; <https://www.dovepress.com/> on 20-Apr-2023

22. Dipti A. Chavan Effect of Dadimadi Ghrita in Garbhini Pandu, ADJIM, Jan - Mar 2019; Vol. 4 Issue 1, page no. 8-10

23. Poornima M.R., Sarika A. K, Gadilinga, Srinivas Masalekar, Ananta S Desai; A Case Report on management of Grahani with special reference to Ulcerative Colitis Journal of Ayurveda and Integrated Medical Sciences, Nov - Dec 2021, Vol. 6, Issue 6, Page no. 238-242

24. Murali Krishna. C, Srinivasulu Bandari, Pavan Kumar Sangu, Penchala Prasad G, Narayana A, Prasanna Kumar T; A Prospective Study on Parpati Kalpana w.s.r to Panchamrut Parpati, International Journal of Ayurvedic Medicine, OCT-DEC 2010, 1(3), p.118-128.

25. Nishit Chaudhari, Smitha Balakrishnan and A.M. Patel; Buttermilk: An unrevealed nutraceutical by Intl. J. Ferment. Food. 7(2): 113-117, December 2018

26. Kumar Sai Sailesh, Archana Rajagopalan, Soumya Mishra, Udaya Kumar Reddy, Mukkadan Joseph Kurien; Beneficial Effect of Twelve Weeks Sri Vishnu Sahasranama Chanting On Stress, Cognition And Autonomic Functions: A Pilot Study; Int. J. Res. Ayurveda Pharm. 7 (Suppl 4), 2016, Sep – Oct, p.87-89

Figure 1: Colonoscopy report



Figure 2: PET CT report (diagnostic)

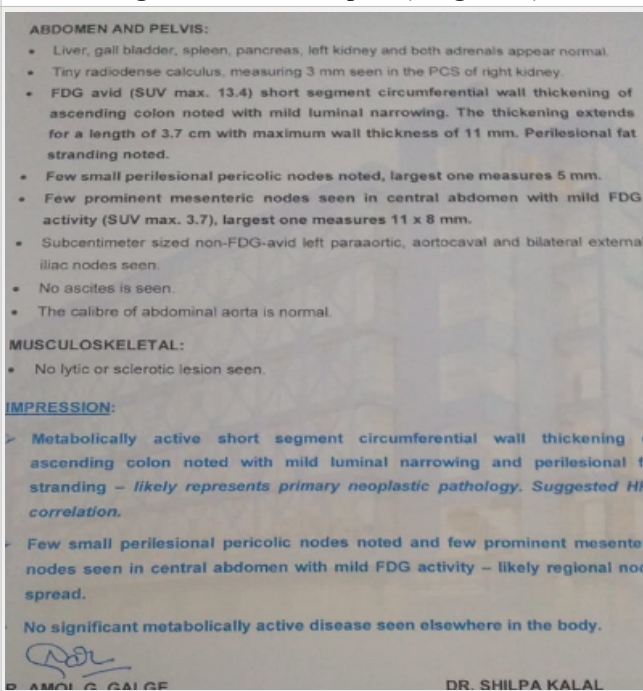


Figure 3: Biopsy report

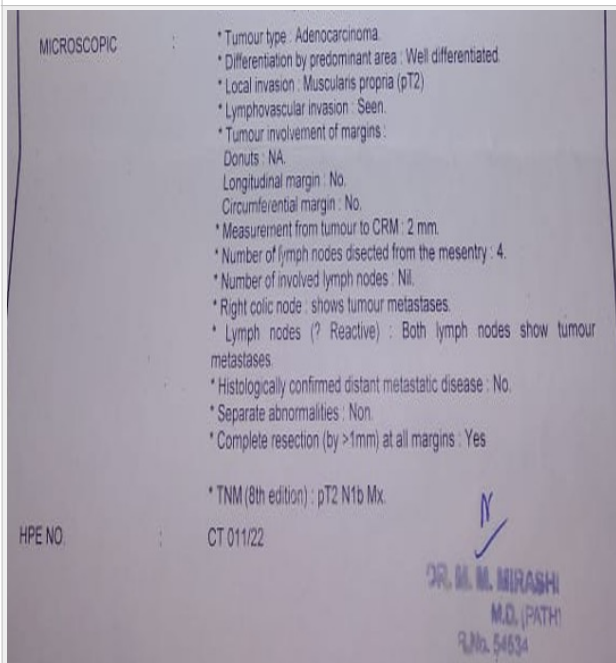


Figure 4: Repeat PET CT after Ayurvedic Management

