

Effectiveness of Basti on adverse drug reaction (ADR) of chemotherapy in Oesophageal cancer to improve Quality of life –A case study

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ABSTRACT-

Purpose of study-Oesophageal cancer is the eighth common type of cancer in the world and sixth cause of cancer related death¹. After chemotherapy and radiotherapy, adverse effects occurs, which hampers the normal function of Gastro-intestinal tract and quality of life. While we concentrate on pathogenesis of any disease, there will be vitiation of *Vata Dosha* mainly² and it is the same for CA oesophagus. *Kapha Dosha* and *Pitta Dosha* is also involved in the pathogenesis of any kind of cancer³. Usually after chemotherapy and radiotherapy, *Pitta Dosha* vitiation occurs, hence during treatment there will be vitiation of *Tridoshas*. There are no established method to counteract the imbalances occurring by these. *Basti* which is said to be *Ardhachikitsa* can be used to reduce the ADR and improve the quality of life of patients.

Materials and methods-A 48 year old male patient with diagnosed oesophageal cancer came to our O.P.D with complaints of severe constipation, difficulty to walk, anxiety, fear, chest pain, dysphagia, abdominal pain, recurrent vomiting, cough, insomnia, body ache etc. He had completed 6 cycles of chemotherapy before 2 months. After evaluation, the patient was admitted in I.P.D of Panchakarma department of IPGT and RA, Jamnagar. Shodhan basti was done first with *Eranda tail* (50ml), *Saindhav* (10gms) and *Ushna Jal* (200ml) for 3 days. *Basti Chikitsa* was started in *Karma Basti* pattern with *Anuvasana Basti* (*Guduchi Ghritha*, 100ml) and *Niruha Basti* (*Guduchyadi Niruha Basti*, 800ml).

Result and Discussion-Assessment was done before treatment, 15th day and after treatment. Quality of life was evaluated with Karnofsky performance index where the scores improved from 40 on the 1st day to 70 after treatment. After treatment, the patient was able to walk and eat properly. Pain in the chest reduced considerably while the pain in stomach and constipation subsided. Nausea and Vomiting subsided while fear and anxiety was reduced considerably. *Basti* is able to balance the *Doshas* in the body mainly by producing *Anulomana* of *Vata*. Once *Vata* is controlled the main symptoms seen are reduced and other *Doshas* are also balanced. *Guduchi* is able to balance the vitiated *Pitta Dosha* occurred due to chemotherapy.

Keyword- *Guduchyadi Karma Basti*, Oesophageal Cancer, Quality of life.

1. INTRODUCTION-

In this era most horrible disease of the world is cancer. Only name of this disease can break physical, emotional and spiritual strength of patients. It's a challenge for all to fight with this concern. The treatment of cancer has increased in complexity. Patient receives adjuvant chemotherapy or radiation therapy, which increases the length and the harmfulness of treatment. Sometime patients killed by disease and sometime by its treatment through its adverse drug reaction. Treatments of cancer which is chemotherapy, radiotherapy and surgery shows role of monsters in life of cancer survivals. Its ADR are nausea, vomiting, hair loss, bone marrow suppression, mouth sore, taste change, peripheral neuropathy, bowel changes, sleep problem, fatigue etc. can hamper patients lifestyle. In 2018 there were 17 million new cases of cancer recorded in worldwide and 9.6 million death were recorded which caused by cancer⁴. Life expectancy of cancer patients is approx. 1 to 5 years depending on stage of cancer.

Oesophageal cancer is the eighth most frequently diagnosed cancer worldwide, and because of its poor prognosis it is sixth most common cause of cancer related death. In recent data by American Institute for Cancer Research there were 500,000 new case in 2018 recorded⁵.

Today need of time is as possible as improve Quality of life of patients by subsiding these ADR. In this way we can add new line of approach *Basti Chikitsa* as an adjuvant of chemotherapy. In Ayurveda *Basti chikitsa* considered as *Ardhachikitsa* due to its multidirectional property⁶. In the case of oesophageal cancer during and after chemotherapy there were lots of ADR occurs due to which hampers the normal function of Gastro-intestinal tract and quality of life. Like dysphasia, loss of appetite, tastelessness, hampered peristaltic movement, frequent vomiting, chest pain, fatigue, constipation etc⁷. *Basti chikitsa* one of the treatment by which these all ADR can be subsided. By using *Guduchyadi Niruha Basti* along with *Guduchi ghritha Anuvasana Basti* gives better result due to its Immuno-modulator property and *Tridoshaghna* property.⁸

According to Acharya *Sushruta Guduchyadi Niruha Basti* is an excellent non-unctuous enema which promotes lustre, complexion, strength energy, power, digestive fire and vitality of the patients. Alleviate all *Vatika* disease and sustains youthful age.⁹ *Vata* responsible for every physiopathological phenomenon of the body. It regulates work of *Dosha*, *Dhatu* and mala. When these *Dosha Dhatu* mala tends to imbalanced then disease occurs in the body.¹⁰ In context of *Arbuda* according to Acharya *Sushruta* it occurs due to vitiation of tridosha. If *vata Dosha* were regulates all *Dosha* will be automatically tend to equilibrium because *Vata Dosha* regulates other *Dosha* in the body and *Guduchyadi Niruha Basti* having property to regulate *Vata dosha* predominantly¹¹. During chemotherapy by this phenomenon ADR may be decreases. In this case study effect of *Guduchyadi Niruha Basti* with *Guduchi Ghritha Anuvasana Basti* were observed QOL of the patient of oesophageal cancer with the ADR of chemotherapy.

Basti Chikitsa is two type

1 *Niruha Basti* – in this type of Basti medicated decoction administrate through anal route.

2 *Anuvasana Basti* – in this type of *Basti* oil or *Ghrita* administrate through anal route.

According to duration *Basti* has three pattern of treatment cycle

1. *Karma Basti* for 30 day plan
2. *Kaala Basti* for 16 day plan
3. *Yoga Basti* for 8 day plan

2. CASE REPORT

A 48 year old male patient with diagnosed oesophageal cancer came with complaints of severe constipation, difficulty to walk, anxiety, fear, chest pain, dysphagia, abdominal pain, recurrent vomiting, cough, insomnia, body ache etc was admitted in Panchakarma IPD. He had completed 6 cycles of chemotherapy before 2 months.

Personal history – Patient belongs with middle class family worked at brass factor and patient was tobacco addicted.

Chief complaint - Pain in abdomen, recurrent vomiting, chest pain, cough, sever constipation, difficulty in swallowing, weakness, fatigue, loss of appetite, impairment in walking.

Associate symptom- Loss of taste sense, arthralgia, blurred vision, fear,

History of present illness- Patient was well before 8 month after that he sudden felt pain in chest and vertigo than he took treatment in allopath hospital for his complain, after that his problem constantly progressed and clinician advised endoscopy. After that he diagnosed with oesophagus carcinoma than he started chemotherapy and completed 6 cycle. But gradually his general condition getting down and didn't get relief in sign and symptom of disease, than he came to our O.P.D. for Ayurvedic management.

Family history- No any

Drug History- Patient completed 6 cycle of chemotherapy and advised for radiotherapy. Patient were in palliative treatment for chest pain.

On General Examinations

BP: 120/88 mm of Hg

Pallor: Absent

Cyanosis: Absent

Temp: Afebrile

RR: 20/min, Regular

Pulse: 78 beats/min

Lymph nodes enlargement: Not palpable

3. MATERIAL AND METHOD:

After taking detailed history of the patient according to Ayurveda, treatment started with

1. *Ghritapaan* 10 ml/day empty stomach for soothing of throat for 7 days
2. *Panchakol Churna* 2gm BD with *Ghrita* for increasing appetite for 7 days
3. *Eranda Brushta Haritaki* 3 gm/day at bed time with lukewarm water for bowel clearance for 7 day
4. *Shodhana Basti* (enema) prepared with lukewarm water 300ml + *Erand Tail* (castor oil)50ml+ rock salt 5gm for 3day (5th, 6th and 7th day)
5. After 10 days when patient was prepared for *Basti Guduchyadi Niruha Basti* along with *Guduchi Ghrita Anuvasana Basti* as a *Karma Basti* pattern.
6. *Sarvang Abhyanga* and *Sarvanga Bashpa Sweda* before *Basti* as pre-*Basti* Procedure
7. *Lavangaadi Vati* 2tab TDS for 30 day which is chewable.

Drug for preparation

(A) *Guduchi Ghrita* for *Anuvasana Basti* (dose 80ml-100ml)

Sr.No.	Contents	Latin Name
1)	<i>Guduchi</i>	<i>Tinospora cordifolia</i>
2)	<i>Goghrita</i>	<i>Cow ghee</i>
3)	<i>Godugdha</i>	<i>Cow milk</i>

(B) *Guduchyadi Niruha Basti*: - 600 to 800 ml

Sr.No.	Contents	Latin Name	Quantity per Niruha
1)	<i>Makshika</i>	Honey	80 ml
2)	<i>Saindhava</i>	<i>Rock salt</i>	10 gm
3)	<i>Til taila</i>	<i>Sesamum indicum</i>	80 ml
4)	<i>Goghrita</i>	<i>Cow ghee</i>	80 ml

Kashaya dravya (drug for decoction) 300 to 600 ml

Sr.No.	Contents	Latin Name
1)	Guduchi	<i>Tinospora cordifolia</i>
2)	Haritaki.	<i>Terminalia chebula</i>
3)	Bibhitaki	<i>Terminalia belerica</i>
4)	Aamalaki	<i>Embilica officinalis</i>
5)	Rashna	<i>Pluchea lanceolata</i>
6)	Bilva	<i>Aegle marmelos</i>
7)	Agnimanth	<i>Premna mucronata</i>
8)	Shyonaka	<i>Oroxylum indicum</i>
9)	Patala	<i>Stereospermum suaveolens</i>
10)	Gambhari	<i>Gmelina arborea</i>
11)	Brihati	<i>Solanum indicum</i>
12)	Kantakari	<i>Solanum xanthocarpum</i>
13)	Shalaparni	<i>Desmodium gangeticum</i>
14)	Prishnaparni	<i>Uraria picta</i>
15)	Gokshura	<i>Tribulus terrestris</i>
16)	Bala	<i>Sida cordifolia</i>

Kalka dravya 80gm

S.no.	Contents	Latin name
1.	Priyangu	<i>Callicarpa macrophylla</i>
2.	Nagarmotha	<i>Cyperus rotundus</i>
3.	Yavani	<i>Tachyspermum ammi</i>
4.	Vacha	<i>Acorus calomus</i>
5.	Madanaphala	<i>Randia spinosa</i>
6.	Shatahva	<i>Anethum sowa</i>
7.	Kushtha	<i>Saussurea lappa</i>
8.	Bilva	<i>Aegle marmelos</i>
9.	Pippali	<i>Piper longum</i>
10.	Guda (Jaggery)	-----

Prakshepa dravya :-

Sr.No.	Contents	Latin Name	Quantity per Niruha
1)	Kanji	-----	50 ml
2)	Mastu	<i>Butter milk</i>	50 ml
3)	Gomutra	<i>Cow's urin</i>	50 ml
4)	Goksheer	<i>Cow milk</i>	50 ml

Grading system¹²

Abdominal Pain	
Grades	Symptom
Grade 1	Mild Pain
Grade 2	Moderate pain; limiting instrumental ADL
Grade 3	Severe pain; limiting self-care ADL
Dysphagia	

Grades	Symptom
Grade 1	Symptomatic able to eat regular diet
Grade 2	Symptomatic and altered eating/swallowing
Grade 3	Severely altered eating/swallowing; Tube feeding, TPN or hospitalization indicated
Grade 4	Life-threatening consequence urgent intervention indicated
Vomiting	
Grades	Symptom
Grade 1	Intervention not indicated
Grade 2	Medical intervention indicated
Grade 3	Tube feeding, TPN or hospitalization indicated
Grade 4	Life-threatening consequence
Chest Pain	
Grades	Symptom
Grade 1	Mild Pain
Grade 2	Moderate pain; limiting instrumental ADL
Grade 3	Severe pain; limiting self-care ADL
Cough	
Grades	Symptom
Grade 1	Mild symptom; Non-prescription Intervention indicated
Grade 2	Moderate symptom; Medical intervention indicated
Grade 3	Severe symptom; limiting self-care ADL
Constipation	
Grades	Symptom
Grade 1	Occasional or intermittent symptom; occasional use of stool softeners, laxatives, dietary modification or enema
Grade 2	Persistent symptom with regular use of laxative or enemas; limiting instrumental ADL
Grade 3	Obstruction with manual evacuation indicated; limiting self-care ADL
Grade 4	Life-threatening consequence; urgent intervention indicated

Karnofsky performance index -for assessment of Quality of life of the patient

No.	Performance status	Functional capability of the patient
1	100	Normal, no complication, no evidence of disease
2	90	Able to carry on normal activity, minor sign or symptom of disease*
3	80	Normal activity with effort, some sign or symptom of disease*
4	70	Care for self: unable to carry on normal activity to do active work
5	60	Requires occasional assistance but is able to care of most need
6	50	Requires considerable assistance and frequent medical care
7	40	Disabled , requires special care and assistance
8	30	Severely disabled , Hospitalization indicated although death is not imminent
9	20	Very sick hospitalization necessary, active supportive treatment is necessary
10	10	Moribund ,fatal process progressing rapidly
11	0	Death

*Sign and symptom according to type of Cancer

4. RESULT –

After completion of 30 Basti treatment there is much relief in sign and symptoms of the patient, marked improvement found in the Pain in abdomen, recurrent vomiting, chest pain, cough, sever constipation, difficulty in swallowing and weakness. Quality of life is also improved 40 to 70 marking according to Karnofsky performance index. Overall changes in other sign and symptom by grading difference 37 to 14 as shown in the table

Karnofsky performance index Patient Score

B.T.	A.T.
40	70

Grading difference between AT and BT of signs and symptoms¹²

No.	Sign and Symptom	B.T.	15 th day of treatment	A.T.
1	Pain in abdomen	3	1	0
2	Recurrent vomiting	3	2	1
3	Dysphagia	3	2	1
4	Chest pain	3	2	1
5	Cough	2	1	1
6	Constipation	3	2	2
7	Loss of appetite	3	2	1
8	Weakness	3	1	1
9	Fatigue	3	2	2
10	Impairment in walking	3	1	1
11	Loss of taste	3	1	1
12	Arthralgia	3	2	1
13	Fear	2	1	1
	Total	37	20	14

5. DISCUSSION-

According to Ayurvedic point of view there is no direct co-relation with Oesophageal cancer but on their clinical presentation there is dominance of *Vata Dosha* and *Vikruti* (vitiation) of *Rakta, Mamsa and meda*. In Ayurvedic text cancer probably correlated with *Arbuda* and its origin due to imbalance of *Dosha* predominantly by *Vata* and *Kapha* but overall tridosha is main cause. According to modern view cancer is a group of disease involving abnormal cell growth [Wikipedia] due to which lump forms in various part of the body. In *Arbuda* whatever *Dosha* responsible but overall *Vata* is main *Dosha* for action of all *Dosha*. Without help of *Vata, Pitta* and *Kapha* are not working at all. In Ayurveda texts also mention that division of cell is controlled by *Vata*. In this way if *Vata Dosha* regulates than division of cell also got controlled. *Guduchyadi Niruha Basti* is a best *Vata* pacifier treatment and using of *Guduchi ghrita as Anuvasana along with Niruha Basti works Tridosha Shamaka*. Contents of *Guduchyadi Niruha Basti* having *Tridosha Shamaka* property like *Dashmoola Triphala* and *Guduchi*. *Dashmoola* is also have *Shothahara* property. *Triphala* having purgative property which recover the peristaltic movement of the body. *Guduchi Ghrita* can pacify the *Pitta Dosha* which was increases due to chemotherapy. *Guduchi* having tridosha Shamaka property and having immune modulator property. *Basti* is also a best *Vata* pacifying treatment. So *Guduchyadi Karma Basti* can be used as alternative and as an immune therapy in Cancer survivals.

6. CONCLUSION

By this clinical case study we can conclude that *Guduchyadi Karma Basti* may improve Quality of life of cancer survivals especially Oesophageal cancer.

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