



CASE SERIES

IMPACT ON OVERALL SURVIVAL RATE IN PANCREATIC CANCER WITH AYURVEDIC RASAYANA THERAPY - A CASE SERIES OF 4 PATIENTS

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Summary:

Pancreatic cancer is known for one of the worst prognosis in different kinds of cancer. In spite of advances in chemotherapy and Immunotherapy medical science has failed to achieve satisfactory success in improving survival in patients of pancreatic cancer. In advanced stage pancreatic cancer patients the expected median survival rate is to be only three to six months. Moreover the quality of life in such patients is highly compromised. Ayurvedic Rasayana therapy has shown promising results in improving overall therapeutic outcomes in patients of pancreatic cancer. Ayurveda therapy has not only shown to improve quality of life in such patients but it has also significantly increased patients survival and need for requirement of conventional palliative care therapies. The present article puts a light on Ayurvedic aspects about management of Patients with pancreatic cancer and also discusses few case studies of pancreatic cancer patients treated successfully by Author and his team using Rasayana therapy.

Key words-Pancreatic cancer, Rasayana therapy, Ayurveda

Key Message-Pancreatic cancer has worst prognosis and limited therapeutic options in conventional medicine. These case studies indicate potential of Ayurvedic Rasayana therapy in improving therapeutic outcomes in dreadful disease like pancreatic cancer.

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INTRODUCTION

Pancreatic cancer is very aggressive, heterogeneous and genetically diverse type of cancer. [1]It is considered to be fourth leading cause of cancer mortality. Patients with pancreatic cancer generally has a very poor prognosis .In spite of advances in Anticancer therapy the medical science has hardly succeeded in significantly increasing patients survival in this type of cancer. One of the main challenges in treatment of pancreatic cancer is that it generally gets diagnosed very late. Its symptoms in initial stages are very vague and it resembles other minor gastrointestinal upsets. Most of the patients gets diagnosed with pancreatic cancer only when the disease has advanced .The survival in such patients is poor and they also suffer form a significant decrease in quality of life. Various studies have indicated that the median survival period in such advanced stages pancreatic cancer patients is only three to six months. [2]Overall survival remains poor either in metastatic disease or in patients

with early-stage disease. After curative surgery survival rate exceed six months in metastatic disease and ten months in locally advanced disease. [3]

Because of poor prognosis many patients with this disease are seen to be taking some complimentary or alternative therapy .In our Rasayu Cancer clinic we have treated several patients of pancreatic cancer. The main approach of treatment was based on fundamentals of Rasayana therapy. Many experimental studies also showed the beneficial effects of ayurvedic *rasayana* therapy in treating dreadful disease like cancer. [4, 5]

Treatment was done with various herbomineral formulation with an aim protect the structure and function of pancreas, to help in natural tumour regression , prevent spread of disease, increase patients survival and to relieve symptoms in patients. (Ref-Table No-1,2,3)

Table No (1): Symptomatic relief obtained by pancreatic cancer patients treated by

Patients initials	Symptoms at Baseline	Symptomatic relief during Rasayana Interventional	Duration required for symptomatic relief
Mrs.S.B (Case study-1)	loss of appetite, anorexia, nausea, pain in abdomen, and general weakness, bilateral swelling over lower limbs	Significant reduction in anorexia and nausea, weakness and mild relief from pain in abdomen	15 days to 1 month
Mr.B.S (Case study-2)	Pain in abdomen, intermittent fever, excessive sweating during taking meal,	Relief from the symptoms with reduction of abdominal pain & increase in appetite.	15 days

	weakness, loss of appetite and nausea.		
Mr.R.P(Case study-3)	Pain in abdomen, backache, nausea.	Reduction in pain in abdomen & increase in appetite	15 days
Mr.N.T(Case study-4)	Indigestion, pain in abdomen, gases, distension of abdomen, nausea, general weakness.	Significant reduction in gases, weakness, nausea and mild relief from pain in abdomen	15 days

Table (2): Tumour response obtained by pancreatic cancer patients treated by Rasayana

R-Only Rasayana therapy, RC –Rasayana with chemotherapy, NA- Not available

Patients initials	Therapeutic approach	Metastatic sites while starting Rasayana treatment	Dimensions of tumour at baseline	Dimensions of tumour while on intervention	Duration required for Tumour response
Mrs.S.B (Case study-1)	R	Liver, Lung, lymph nodes	3.6X3.7 cms in the region of bed of pancreas, with lymph nodes involvement Metastatic multiple lesions in liver and left lower lung	NA	
Mr.B.S (Case study-2)	R	Liver	pancreas lesion- 5.2x4.1x3.4 cm & multiple lesions in the Liver.Largest-9 cm	pancreas lesion- 4.1x2.7x4 cm	7 months
Mr.R.P(Case study-3)	R	Lymph node	recurrence of	marginal	4 months

study-3)			tumour in his head of pancreas (NA)	reduction in the size of the lesion-6.0x5.4 cm	
Mr.N.T(Case study-4)	RC	Liver	Pancreatic lesion-3.5x3.5 cm liver lesion- 2.4x2.1 cm	pancreatic - 3.6x3.8 cm and largest liver lesion- 2.5x3 cm.	6 months

Rasayana: The main formulations used by us in patients of pancreatic cancer includes *Navjeevan Rasayan* –(a herbo-mineral formulation containing Suvarna Bhasma, TamraBhasma, AbhrakBhasma, Hirak bhasma etc). Besides this other classical formulations are also used based on patients condition with an aim to relieve patients symptoms

Our observations have clearly demonstrated that *Rasayana* therapy plays a very important role in improving outcomes in patients of pancreatic cancer. Some of the important therapeutic outcomes seen in these patients are as follows.

Increased survival - Overall survival rates for pancreatic cancer remains poor and have not much been changed in last two to four decades. The main reason for this remains to be late diagnosis .It is seen that a small minority of patients are diagnosed at a stage when the tumor is resectable. It has been observed that the best survival rates in pancreatic cancer patients are seen in patients in whom the disease is surgically resectable. In those cases where resection is

possible the average survival is around 18 to 20 months' .But in majority of cases the disease is diagnosed in advanced stage and the median survival remains to be about three to six months.

Rasayana drugs are known to have property of increasing survival (*Ayushya*). Especially compounds like *swarna bhasma* and *Heerak bhasma* plays an important role in this. Patients of pancreatic cancer have seen to respond very well to such Rasayana compounds .Patients of advanced highly stages with predicted survival of around one to three months were treated by us using these compounds It was seen that such patients have survived for about 10-14 months without receiving any conventional anti-cancer therapies.(Table no-3) Unfortunately patients approach to Ayurveda at a very late and advanced stage. Looking at the results in patients with advanced stage we believe that if patients are diagnosed very early and start *Rasayana* therapy immediately after resection then survivals will be far better.

Table (3): Survival benefit obtained by pancreatic cancer patients treated by Rasayana

Patients initials	Cancer stage while starting Rasayana treatment	Metastatic sites	Median survival	Actual survival in this patient
Mrs.S.B (Case study-1)	Stage-IV	Liver, Lung	3 to 6 months	6 months
Mr.B.S (Case study-2)	Stage-IV	Liver	3 to 6 months	10 months
Mr.R.P(Case study-3)	Stage-III	Lymph node	3 to 6 months	9 months
Mr.N.T(Case study-4)	Stage-IV	Liver	3 to 6 months	14 months

Improvement in Quality of life -Pancreatic cancer is a rapidly fatal disease where palliation of symptoms often serving as the main goal of therapy. The end of life in patients of pancreatic cancer is usually marked by severe symptoms and poor quality of life (QoL).We have analysed changes of *Rasayana* therapy in patients with advanced stage pancreatic cancer using the Functional Assessment of Cancer Therapy questionnaires at start of therapy and follow-up. It was seen that *Rasayana* therapy significantly improved Physical, Functional, Emotional as well as Total Quality of life in patients with pancreatic cancer. Hence in disease like pancreatic cancer where the prognosis is poor it will be prudent to incorporate *Rasayana* therapy in the standard of care for such patients.

Besides above important two therapeutic outcomes *Rasayana* therapy has also demonstrated very significant results in preventing

disease progression, and managing symptoms of the disease.

Here we are presenting case studies of few pancreatic cancer patients treated successfully by *Rasayana* therapy.

CASE STUDY – 1

A 67yrs old diabetic female patient was presented with jaundice, diarrhoea, fever and clay coloured stools. With these complaints she reported to a conventional care hospital on 25-03-2011 where she underwent diagnosis for exact cause of obstructive jaundice. She underwent ERCP and EUS which revealed 2 x2 cms mass in the head of Pancreas. Following this the patient underwent whipples surgery .HPE Report was suggestive of poorly differentiated Adeno carcinoma of Pancrea with T3N1 Staging.

Again in May 2013 she was having above complaints. So repeat CT scan of abdomen was done which showed heterogeneously enhancing mass lesion measuring 3.6X3.7 cms in the region of

bed of pancreas, with lymph nodes consistent with recurrent tumors in surgical bed. New Metastatic lesion in liver and visualized left lower lung (Table no-7) and CA 19-9 level was 2124 U/ml. Patient was told by the treating oncologist that maximum life span of the patient will be about 2 months and her condition will start deteriorating day by day.

Patient came to our Cancer clinic for palliative care. On 29/5/13 she reported to clinic with complaining of loss of appetite, anorexia, nausea, pain in abdomen, and general weakness. On examination bilateral pedal oedema was present. Immediately we started above mentioned therapy for fifteen days. After fifteen days patient came for follow up with mild relief from symptoms. (Table no-5) By seeing this response we continued treatment. The patient was absolutely stable for 6 months after starting *rasayana* therapy and was not having any physical complain other than mild anorexia. After this patient underwent for

abdominal tapping against our advise. While undergoing the procedure she went in to shock and never recovered.

Line of treatment – Considering the advanced stage of disease in this patient our main line of treatment was aimed towards increasing patient’s survival, relieve symptoms and improve quality of life as mentions in Table number four. Considering the lesion in lungs and liver formulations like *Abhraka bhasma*, *Arogyavardhini*, *Pravalpanchamruta* and *Shatchurna* was predominantly included. Heeraka (*Ayuspradam*) bhasma was included to increase patients survival. *Swarna bhasma* (*rasayana*) and *Swarnasindoor* was used to improve patients quality of life. Considering the predominance of pitta dosha in symptoms of this patient Pittashamaka formulation like *Swarnasootsekhar* and *Moutik*, *Kamdudha* was used. For pain relief *Shankhwati* was given.

Table No-4:-Treatment Details (Case study-1)

DRUG NAME	DOSE	FRQUENCY	ANUPAN	Duration
Navjeevan Rasayan (suvarna bhasma, abhrak bhasma, heerak bhasma etc)	250 MG	OD	Honey	6 months
Aarogyawardhini	250 MG	BD	warm water	6 months
Prawalpanchamrut	250 MG	BD	warm water	6 months
Shatchurna	250 MG	BD	warm water	6 months
Kamdudha ras	250 MG	BD	Honey	6 months
Swarnasindur ras	250 MG	HS	Honey	6 months
Shankhawati	250 MG	BD	Honey	6 months

This case demonstrated a very significant increase in survival besides and improvement in Quality of

life. Patient was absolutely pain free till her last breath. This case clearly potential of Rasayana

therapy demonstrates the potential of Ayurveda in reducing symptoms and increasing quality of life in patients of pancreatic cancer.

CASE STUDY -2

A 40 year old male patient had come to our cancer clinic with symptoms of abdominal pain, intermittent fever, excessive sweating during taking meal, weakness, loss of appetite and nausea. He had a 10 Kg weight loss in six months time. He underwent treatment from general physicians without substantial symptomatic relief. Patient underwent further investigation and CA-19-9 & HIAA both showed normal values. CT scan of abdomen and pelvis was performed on 30/07/2009 which revealed lesions in the Tail of the pancreas & multiple lesions in the Liver. (Table no-7)The diagnosis made was primary for pancreas with secondary metastasis in the liver. A maximum survival of three months was predicted for the patient. Due the very low life expectancy patient was kept unaware of the disease and hence his relatives decided to opt for Rasayana therapy as a

palliative care option. *Rasayana* therapy was started on 19/08/2009. The principle aim was palliation of symptoms with improvement in the quality of life. Immediately after start of treatment he got relief from the symptoms with reduction of abdominal pain & increase in appetite. (Table no-5)CT scan performed on 9/2/2010 showed reduction in the size of the lesion. Patient survived for more than 10 months without any conventional care as against 3 months predicted.(Table no-6)

Line of treatment- The main presenting symptoms in this case was severe anorexia and cachexia. Besides this patient also has hepatic involvement. Hence the line of treatment as mentioned in table number five in this case was directed towards improving *Agni Chitrakadivati ,shankha vati and shatachoorna* was used in this patients to achieve this objective. *Swarna bhasma ,swarna sindoora* and *Ashwagandha* was used to treat cachexia. *Heerak bhasma* was used in this patient to increase survival and cause tumor regression.

Table No-5:-Treatment Details (Case study-2)

DRUG NAME	DOSE	FRQUENCY/KALA	ANUPAN	Duration
Navjeevan Rasayan (Suvarna bhasma,Heerak bhasma etc)	250 MG	OD	Honey	10 months
Chitrakadi wati	250 MG	BD	warm water	10 months
Shankhwati	250 MG	BD	warm water	10 months
Shatchurna	250 MG	BD	warm water	10 months
Swarna sindoora	250 MG	HS	Honey	10 months
Ashwagandha Churna	250 MG	BD	Honey	10 months

This case is a very interesting, treated exclusively with Ayurveda therapies without any conventional

anti cancer therapies or palliative care therapies. *Rasayana* therapies significantly reduced the

symptoms in this patient and also improved quality of life. Besides this an very important finding in this case was partial tumour regression which happened exclusively by Rasayana therapy without any conventional care therapies. This case demonstrates that besides improving quality of life and increasing survival Rasayana Ayurvedic Rasayana therapies can show tumour regression.

CASE STUDY -3

A 63 years old man came to our cancer clinic on 1/2/12 with complaining of pain in abdomen, backache, nausea. He was a known case of pancreatic cancer with history of whipples surgery. He had recurrence of tumour in his head of pancreas. After examination immediately according to ayurvedic basic parameters we started *rasayana* therapy. Immediately after start of treatment he got relief from the symptoms with reduction of abdominal pain & increase in appetite. (Table no-5) USG –abdomen and pelvis performed in May 2012 showed marginal reduction in the size of the lesion (Table no-7)and

CA 19-9 was 28.54 u/ml .His general condition was excellent .His follow up ultrasonography of abdomen revealed six cm size solid lesion at infra hepatic region anterior to portal vein suggestive of enlarged lymph node. He had no any symptoms till his last follow up on 30/10/12.(Table no-6)Unfortunately we lost the follow up with this patient after this. This case shows improvement in patient’s quality of life and reduction in symptoms even in patients of recurrent Pancreatic cancer.

Line of treatment–Since this case was of recurrent pancreatic cancer our main line of treatment in this patient was to prevent disease progression, increase survival and relieve symptoms as given in table number six. To prevent disease progression we aimed to improve tissue specific immunity .*Ashwagandha* and *Swarnasindoor* was used to achieve this. *Heeraka bhasma* and *Swarna bhasma* was used to increase survival .The main presenting symptom in this case was nausea and abdominal pain.*Kamdudha moutik* and *Sootsekhar* was used to treat the symptoms.

Table No-6:-Treatment Details (Case study-3)

DRUG NAME	DOSE	FRQUENCY	ANUPAN	Duration
Navjeevan Rasayan (suvarna bhasma,heerak bhasma etc)	250 MG	OD	Honey	7 months
Sootshekhar Ras	250 MG	BD	warm water	7 months
Shankhwati	250 MG	BD	warm water	7 months
Kamdudha Mouktik	250 MG	BD	warm water	7 months
Swarna sindoora	250 MG	HS	Honey	7 months
Ashwagandha Churna	250 MG	BD	Honey	7 months

CASE STUDY -4

A 51 years old known diabetic and hypertensive patient came to our cancer clinic with complaints like indigestion ,pain in abdomen, gases, distension of abdomen, nausea, general weakness. He had pancreatic cancer with multiple mets in liver. On evaluation we had started *rasayana* therapy according to his sign and symptoms. *Rasayana* was administered along with his ongoing chemotherapy protocol folfirinox. Folfirinox is a combination of the drugs like Folinic acid, Fluorouracil,Irnitecan, Oxaliplatin. After 8 cycles of chemotherapy his follow up dated scan 22/11/11 showed no any changed in pancreatic lesion ,while liver lesion showed decrease in size from 3.0x2.4 cm to 2.4x2.1 cm and one previous lesion resolved. After that he was exclusively on Ayurvedic treatment. On 15/6/2012 his USG Abdomen and Pelvis was revealed stable

pancreatic and liver lesion with no any new growth.(Table no-7) On *Ayurvedic* treatment patient showed excellent symptomatic relief with increased overall survival rate. Till his last follow up date 20/10/12 patient was clinically stable. Patient survived for more than 14 months as against three to six months estimated survival rate in metastatic pancreatic carcinoma.(Table no-6) Line of treatment – The main line of treatment in this patient was to increase survival and improve tolerability to chemotherapeutic agents as mentioned in table number seven. *Kamdudha moutik*, *swarna sootsekhar* was to reduce gastrointestinal toxicity due to chemotherapy and *swarna bhasma* was used to improve tolerability to Chemotherapy. *Heerak bhasma* was used to increase survival

Table No-7:-Treatment Details (Case study -4)

DRUG NAME	DOSE	FRQUENCY	ANUPAN	Duration
Navjeevan Rasayan (suvarna bhasma,heerak bhasma etc)	250 MG	OD	Honey	14 months
Swarnasootshekhar Ras	250 MG	BD	warm water	14 months
Kamdudha Mouktik	250 MG	BD	warm water	14 months

This case demonstrates that Ayurvedic Rasayana therapy can also be administered even in patients treated with conventional standard of care therapies for pancreatic cancer.

DISCUSSION

Pancreatic cancer is most dreadful disease among all cancers. Survival rates for pancreatic cancer are extremely poor. Only 10% cases are resectable at

presentation and more than 90% cases are potentially curative resectable and dying because of local recurrence or development of secondaries. The high rate of recurrence is mostly due to occult primary metastases or microscopically incomplete resection and frequent neural invasion of tumour. [7]

Pancreatic cancer mostly first detected at advanced stage so it is a major upcoming challenge to find out tools for early detection and development of more effective therapies for all stages of pancreatic cancer. New advances in this cancer are limited and treatment of the disease remains a major challenge.

Many experimental studies showed Ayurvedic *rasayana* therapy is beneficial in treating cancers. *Rasayana* compounds have shown to possess antitumor, immunomodulatory, non cytotoxic, antiangiogenic, and antioxidant properties. It is also known to induce apoptosis. Many in-vitro and in-vivo studies showed its efficacy in treating various types of cancers like colon cancer, hepatic cell carcinoma, leukemia etc. [5,6]

Suvarna bhasma (calcinoid gold) is main ingredient of our *rasayana* therapy, have shown to possess enormous potential to improve the efficacy of cancer treatment. [8]

In above present cases patient came to us in very advanced recurrent metastatic disease stage. Palliative chemotherapy is usually afforded in this stage to prolong life but in advanced stage usually patients not responded to chemotherapy and it still remains a challenging issue for oncologist. In these cases we observed that *Ayurvedic rasayana* therapy is good palliative treatment in advanced stage of cancer. After starting *rasayana* therapy patient had shown improvement in appetite, food intake, sleep, and feeling of well-being which could elicit the action of herbo-mineral compounds on digestive system.

Many research studies estimated the median survival period in patients with advanced

pancreatic cancer is only three to six months. [2] Overall survival remains poor either in metastatic disease or in patients with early-stage disease. In above four cases overall survival rate improved till six to fourteen months with *ayurvedic* treatment significantly even in advanced stage of disease. It shows the potential of *ayurvedic* treatment in pancreatic cancer.

CONCLUSION

Pancreatic cancer still remains a big challenge for oncologist. The survival in these patients is very poor and also this disease causes various painful symptoms which are difficult to manage. *Ayurveda* therapies have shown to have a significant effect in reducing symptoms and improving quality of life in pancreatic cancer patients. Besides this in all the cases it shows a very significant increase in survival. All these observations indicates that *Rasayana* therapy has a great role to play in improving therapeutic outcomes in patients with pancreatic cancer.

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