



Ayurvedic therapy in the treatment of recurrent anaplastic astrocytoma–A case Report

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Abstract

This case report described possible role of Ayurvedic rasayana therapy in a patient diagnosed with recurrent Anaplastic astrocytoma. He was initially treated with surgery and Radiotherapy. He failed to respond to these therapies and recurrence occurred within two months only hence he decided to start Ayurveda therapies with conventional therapy. According to Ayurveda the bone marrow channels, commonly referred to as the central nervous system, supply the marrow and nerve tissue nutrients to the Majja (bone marrow) dhatus (all over the body), hence, we selected rasayana compounds which act on majjadhatu with which patient showed favourable relief from his symptoms with regression of his brain tumour.

Key Words

Ayurveda, Rasayana, Anaplastic astrocytoma, Brain tumour

Introduction

The central nervous system (CNS), which is related to control vital functions of the body. Brain tumors are especially problematic because these are related to a person's thought processes and movements. Also, these tumors can be difficult to treat because the tissues surrounding the tumor may be vital to functioning. Because of involvement of surrounding tissue, anaplastic astrocytomas and glioblastomas can be very difficult to treat. Without treatment, these aggressive tumor cells multiply rapidly. ^(1, 2)Median survival for adults with an anaplastic astrocytoma is about two to three years only. ⁽¹⁾

The goal of our Rasayana treatment in cancer patients is to slow down that multiplication process, control tumor growth and improve life quality.

Rasayana treatment is one of the specialized branches in ayurveda. Possible properties of Rasayana therapy which can be correlated with modern terms are antioxidant action, immunomodulatory action, hemopoietic effect, adptogenic actions, antiaging action, anabolic action, nutritive function, neuroprotective action etc. ⁽³⁾ Rasayana therapy helps to promote health and to cure disease in sick. It improves one's energy levels, memory levels, and longevity very well. ⁽³⁾Hence, considering all these Rasayana drugs properties we have successfully treated thousands of cancer patients with Ayurvedic basic fundamentals in our Rasayu Cancer Clinic. Selection of treatment was done in this patient on the basis of organ and the tissue involved in the disease.

In the current case report the patient was diagnosed with Anaplastic astrocytoma. He was initially treated with surgery and Radiotherapy. He failed to respond to these therapies and recurrence occurred after two months only hence decided to start Ayurveda therapies. According to ayurveda the bone marrow channels, commonly referred to as the central nervous system, supply the marrow and nerve tissue nutrients to the Majja (bone marrow) dhatus (all over the body), hence, we selected rasayana compounds which acts on majjadhatu, tridosh and Central nervous system, with which patient showed favourable relief from his symptoms with regression of his brain tumor.

Case Presentation

A 68 -year-old diabetic male had a history of mild headache beginning at the end May 2010. Early in April, 2010 he suffered severe headache, giddiness. One week later, he had episode of seizure with vomiting. He was evaluated outside and his a MRI of brain (pre & post contrast study)', MR spectroscopy, MR venogram dated 8/5/10 demonstrated a focal lesion

in left temporal lobe anteriorly, with two tiny cystic components within it. It also showed marked perilesional vasogenic edema was noted with effacement of left sylvian fissure with mild mass effect on left temporal lobe. On post contrast study this lesion shows heterogenous enhancement. The lesion measures approximately 19 mm x 25 mm x 14 mm. Mild focal leptomeningeal enhancement was also noted. On MR spectroscopy, there was reduction in NAA with NAA / Cr ratio of 1.1. There was significant abnormal elevation of Choline with Ch / Cr ratio of 3.1, consistent with neoplasm such as glioma. The MR Venogram showed a normal appearance of the dural venous sinuses with no any evidence of dural venous sinus thrombosis.

His left temporal tumour had removed on 13/5/10. The histological appearance of the tumor had been indicated Astrocytoma Grade III (WHO Grade III-Anaplastic astrocytoma.)

Despite surgery and radiation therapy within two months of treatment he developed mental disturbance in July 2010. His repeated MRI Brain dated 30/7/10 revealed ill-defined parenchymal hyper intensity in lefttemporal lobe, which extends medially to involve the dorsal aspect of left lenti form nucleus. Mild hyper intensity in right medial temporal lobe was also seen. A few cystic Post contrast study shows multiple thick walled ring lesions in left anterior temporallobes. These lesions measure 15 x 17 x 24 mm in transverse, AP and vertical dimensions respectively. Soft tissues at the operative site also showed post contrast enhancement and cystic lesions a little posteriorly, do not showed post contrast enhancement. The enhancing lesions in left anterior temporal lobe show slightly different imagingmorphology as compared to the preoperative MRI study.

These areas were seen within this parenchymal hyperintensity along the lateral aspect. Someextra cranial herniation of brain tissue was seen though the operative bone defects. MRI status post-operative had showed thick ring enhancing lesions in left anterior lobe highly suggestive of recurrent / residual malignant neoplasm and it also revealed posteriorly located enhancing lesions were mostly due to post operative changes and patchy perilesional hyper intensity represents edema / radiation changes.

His neurological status grew worse; he had difficulty in remembering and speaking. He had been on antiepileptics and in spite of that he had two to three episodes of seizures. He had been started Tab Temozolamide 500mg in August 2010.

After that he had come to clinic on 1/9/10 to start rasayana therapy to cure his tumor and increases tolerability to chemotherapy. He was suffering from headache, convulsions, cough,

and dizziness, difficulty in speaking, memory impairment and ataxia. His appetite and sleep was also considerably reduced.

After clinical examination on the basis of Ayurveda physiology and pathology, we selected drugs which act on central nervous system and majjadhatu like Anti malignant rasayana therapy (AMRT-a proprietary medicine herbo-mineral formulation) with other symptomatic classical Ayurvedic drugs were prescribed as per table number one.

After receiving Ayurvedic formulations and rasayana treatment his energy levels got increased. He got relief from headache, cough, and dizziness within 15 days. In further follow up he was showed improvements in psychological and memory problems. His speech improved considerably. He had difficulty in finding words during speaking which got reduced. His appetite and general condition came to normal.

After that his follow up MRI Brain was done which showed only regression of mild T2 hyper intensity in the right middle temporal lobe with persistence of previously noted thick walled, ring enhancing lesions in the left antero-temporal lobe with measuring 12.0 (AP) x 15.5 (RL) x 15.9 (SI) mms with perilesional edema and mass effect. All these findings were consistent with recurrent / residual neoplastic lesion.

Hence, we had made little change in treatment .We had started Shamani oil Nasya.(proprietary medicine) . Nasya chikitsa is one of the panchakarma chikitsa in which medicated oil or ghee are placed in nostrils.

Afterthat his follow up scan dated 9/12/10 was noticed mass effect due to the left temporal

astrocytoma had been appeared less. Parenchymal hyper intensity and degree of post contrast enhancement also had showed regression indicating a favourable response to treatment.

After that he continued rasayana therapy for five months. During this treatment period he didn't get epileptic episodes or headache. His quality of life was good.

Table No-1 Ayurvedic treatment Chart

DRUG NAME	DOSE	FRQUENCY	ANUPAN
AMRT	1 cap	OD	Honey
Kanchnar Guggul	250 MG	BD	WARM WATER
Suvarnasut shekhar	250 MG	BD	WARM WATER
Shrunga Bhasma	250 MG	BD	WARM WATER

Tapyadiloha	250 MG	BD	WARM WATER
Ashwagandha powder	250 MG	BD	WATER
Vatgajankush Ras	250 MG	HS	WATER
Mrugankras	250 MG	HS	Honey
Swarnasindoor	125 MG	HS	Honey

Rationale for Ayurvedic treatment

On the basis of Ayurveda physiology and pathology we selected drugs which act on central nervous system, majjadhatu and tridosh. Majjā Dhātu' stands for everything that fills bony cavities. So, apart from bone marrow, it also stands for Brain substance because this fills up a cavity formed by the union of several cranial bones and to support and restore the normal functions of the central nervous system, majja dhatu and vitiated tridosh mainly Pranvayu .

It mainly includes Antimalignant Rasayana-a proprietary medicine (Swarna Bhasma – Bhasma (Calx) of Gold, Rajat – calx of silver ,Tamra- calx of Cu, Manahshil-purified realgar, Bramhi powder-Baxcopamonneiri, Shankhpushpi-Convulvulus pluricaulis, abhrak-calx of mica) with other medications as per Table no-1

Swarna bhasma is helpful for cancer. It stops the growth of cancer cells and improves the immunity to fight off the unwanted growth of body tissues. Some research studies also prove the efficacy of anticancer effect of Swarna bhasma. It is useful in various neurological diseases. It is a potent immunomodulatory drug and also it is useful in depression. ^(7, 10).. Rajatbhasma is helpful in improving immunity and rejuvenating body^(6,7)Manhshila is also good rejuvenator and having sedative property^(6,7)

According to classical Ayurvedic text, Shankhpushpi and Bramhi has effect on brain and nerves. They possess properties like antioxidant, adptogenic, antianxiety, antiepileptic, memory enhancer .These properties are useful in brain cancer. Abhrakbhasma is powerful cell rejuvenator, immunomodulatory, anti-inflammatory, general body tonic, and work on respiratory system, nervous system, liver and mind. It pacifies all the three humors (three doshas). It is useful in headache, dementia, memory loss, epilepsy, brain atrophy, anxiety, mental weakness, depression etc. It provides beneficial nutrients to the brain and strengthens nerves and brain tissue. It prevents memory loss and reduces epileptic attacks. Abhrak bhasma increases strength, promotes health and it is beneficial in maintaining natural metabolism in the body. It repairs cells and aids in rejuvenating them. It repairs all tissues of

the body and nutrition to every cell in the body.(6,7,11) In Ayurvedic text Kanchanar guggul is effective in curing benign and cancerous tumors.

It is also beneficial in reducing swelling of lymph nodes. Kanchanar (Bauhina Variagata) has antitumour, anticancer, antimutagenic, antioxidant, anti-inflammatory (8) Suvarnsutshekhar (Purified Parad, Purified Gandhak, Chaturjat, Shankh Bhasma, Suvarna (Gold) Bhasma) is used for pittaj dominant diseases and Hyperacidity, Dyspepsia, Vomiting, and Indigestion and Ashwagandha is also a good rejuvenator and useful in cancer (9) Makardwajwati is used to improve strength of heart, it is a good cell rejuvenator and it helps to improve immunity (8) Vatgajankushras to balance vata dosh and to avoid paralysis. It has been used in neuro muscular diseases (8) Shringbhasma balances vat and pitta. It has been used in respiratory and gastric disorders (7) Mrugankras (Swarn Bhasma, Moti Bhasma, Parad (Suddha) & Gandhak (Suddha).) it is alterative, tonic & haematinic. Indicated in pulmonary diseases, chronic fever, cough, bronchitis, indigestion, It is stimulant to heart and lungs (8)

Outcome and Follow-Up

The regression of brain tumor on the patient's follow-up MRI scans 2 months post-treatment was seen. The patient was found to have no convulsions, no visual, memory or Speaking problems, and no other sequelae throughout the entire follow-up period and was performing reasonably well.

Discussion and conclusion

In Ayurveda Charaka has explained cell as parmanu. This statement indicates that there existed a concept of minute and numerous individual living units in the body. Today we call such microscopic units by the name 'Cell'. In Ayurveda cell rejuvenation therapy is most important available therapy for various chronic and incurable diseases.

Charaka and Sushruta Samhita (700 BC) both described the equivalent of cancer as granthi (benign or minor neoplasm) and arbuda (malignant or major neoplasm) both can be inflammatory or non-inflammatory based on the doshas involved. The term dosha describes the three principles that govern the psycho-physiological response and pathological changes in the body. The balanced coordination of these three systems (Vata, Pitta and Kapha) in body, mind and consciousness is the Ayurvedic definition of health. The fundamental theory of Ayurvedic treatment is based on restoration of the balance between these three major bodily systems. Tridoshic tumours are usually malignant because all three major body humors lose mutual coordination, resulting in a morbid Condition (4,5)

Although the patient completed the full course of EBRT treatment and surgery, patient had recurrence of tumor; hence, we started Ayurvedic rasayana therapy with his ongoing chemotherapy in considering need of more treatment to ensure regression of the tumor.

We firmly believe that to regress tumor further treatment was needed. Recurrent astrocytoma is a very aggressive type of tumour. Nasyachikitsa has direct influence on brain function and it is very useful in shirorog.⁽¹²⁾ However, Ayurvedic literature has no direct reference for the diagnosis of astrocytoma but on the basis of above basic Ayurvedic pathology we treated this recurrent astrocytoma case successfully.

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