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Editorial

Dear members of A.A.I.M. the entire world are celebrating 150th Birth Aneversary of Mahatma Gandh. At this great moment C.C.I.M. has discontinued Sangyaharan speciality which created a vacume for surgical disciplines. Mahatma Gandhi ji was of view to integrate Ayurved with scientific evidence based researches. He expressed his view during his visit to Kashi Hindu Vishwavidyalaya. He criticised Vaidyas not to incorporate newer development in medical science. This is unfortunate to our country that after a very long efforts of faculties of B.H.U. , the concept of Sangyaharan took birth and was recognized in 2005 by C.C.I.M. but unfortunately in it`s infancy it is killed by our own people.The forces who are responsible for this destructive approach will lateron certainly be guilty.

Keeping in view 'Ayurved as Total Health System' I appeal to authorities of AYUSH to take neccessory steps to restore this specility immediately in favor of Ayurved and entire world.

Jai Hind Jai Ayurved Jai Sangyaharan

Devendra Nath Pande

Chief Editor,
Professor & Head, Deptt. of Sangyaharan,
Faculty of Ayurved, I. M. S., B.H.U., Varanasi.

Recent Innovation in Pain Management through Alternative Medicine with Special Reference to Acupuncture Therapy

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Abstract : Joint Pain in the form of Osteoarthritis is a leading cause of disability in India. It also impacts patient's quality of life. The main cause of this disease is improper sitting posture, continuous & over exertion, prolonged traveling by different vehicles, less sports activities, exercises, etc. which in fact cause undue pressure on spinal cord, knee joints, shoulder joints, wrist joint, etc. and produce low backache, joint pain, while estimating the joint pain and low backache the incidence rate of this disease goes higher than 60%. If this type of joints pain sustain for a prolonged period with the affection of individual body then the disease tends to manifest its severity and chronicity.

Pain is a subjective symptom. There are many words in Ayurveda which denote pain e.g. Vedana, Shoola, Dukha, Ruja, Pida. Since it is a subjective symptom, intensity of pain varies with individuals, time, and site. It depends greatly upon the mindset of the patient. Pain sensation is more prominent in Vataja Prakriti and Vata Dusti.

Key Word: quality , exertion Vedana, Shoola, Dukha Vataja Prakriti and Vata Dusti.

Introduction: The word "Shoola" is also used for painful sensation. Indeed Ayurveda has not only considered Shoola as a symptom or as an independent disease entity but they have taken more comprehensive view regarding the etiology, pathology and management of Pain. Shoola has been described as Vata Vyadhi. Although management of osteoarthritis typically includes the use of medications, pharmacologic agents can be associated with numerous potential side effects and variable efficacy. Physicians and other health care professionals treating individuals with osteoarthritis need to provide these patients with viable options to accomplish their exercise goals and proper Diet Plan.

Arthritis one of the most thorough and more recent systematic reviews looked exclusively at acupuncture for the treatment of osteoarthritis of the knee. The strength of the review is that it rated seven different clinical trials on the basis of whether or not the acupuncture treatment they used conformed to guidelines and recommendations put forth by many acupuncture experts.

These guidelines included (1) an average of 10 treatment sessions for a chronic condition, (2) stimulation of at least eight points per session, (3) elicitation of the De Qi sensation, and (4) useof a combination of high-frequency and low-frequency stimulation when EA is used to avoid accommodation to the electrical stimulation. The review also rated studies on the quality of their design and the type of control group they used. Four of the seven studies found acupuncture to have a positive effect on pain, and three of the studies were neutral. No studies reported acupuncture as having a negative effect on pain associated with knee osteoarthritis. Three high-quality studies compared real acu- puncture with sham acupuncture, and two of them reported positive results. None of the trials conformed to all four of the guidelines deemed necessary by the acupuncture experts for adequate acupuncture treatment. The most important guideline is treatment duration for a chronic condition, such as osteoarthritis of the knee. The three studies that administered the minimum of 10 treatments all had positive results.

J.F. Audette, A.H. Ryan / Phys Med Rehabil Clin N Am 15 (2004) 749–772 study show an improvement in subjective pain and functional scores in a group of osteoarthritis patients who underwent acupuncture. One of the strengths of this study was the frequency of the intervention: The subjects completed biweekly acupuncture treatments for 8 weeks. The positive effect of acupuncture was sustained 12 weeks after treatment. However, the benefit, although it remained significant, decreased at this 12-week point, suggesting that maintenance therapy may be beneficial.

Christensen et al found a significant reduction in pain and use of analgesic medications compared with a control group. This benefit was sustained, and 7 of 29 patients enrolled declined the total knee replacement operation at the end of the wait, saving $9000 per patient.

The literature on acupuncture for the treatment of Rheumatoid Arthritis is sparse. A Cochrane systematic review identified only two studies that met methodologic standards for inclusion. One study compared acupuncture with placebo and found no difference in pain after 5 weeks of treatment. The second study compared EA with placebo and found a significant decrease in knee pain after 24 hours, but not at 1 month, 2 months, or 3 months after treatment. The treatment protocols in both trials normally would not be deemed of sufficient length by acupuncture standards to have a sustained effect on such a chronic condition as rheumatoid arthritis of the knee. These studies of short treatment duration do not support the use of acupuncture in Rheumatoid Arthritis patients, but they lay the ground work for future research.

Conclusion: In recent innovation carried out in the Department of Sangyaharan Faculty of Ayurved, IMS,BHU,Varanasi shows that Ayurvedic Vedanhar Aausadh like Singhanad Guggulu ,Rasanadi Guggulu,Yogaraj Guggulu,Sigru Guggulu and Kanchnar Guggulu with Acupuncture Therapy cure the joints pain more efficiently. So use of Acupuncture with Ayurvedic Vedanahar Drug is milestone for the treatment of different types joint Pain.

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Pain Management in Post -operative cases of Hydrocele

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Abstract: The post operative management begins from the day the surgery is performed till the time the patient is mentally as well as physically fit to resume his normal day to day activities. A complete and effective ayurvedic post operative pain management is very much needed. Bala Taila matrabasti is used as an addition in this study to establish a complete ayurvedic pain management combination in post operative phase of Hydrocele. Moreover Basti could be a cost effective, reliable and technically simple mode of drug administration in pain management.

Back ground and Aims: In Ayurvedic surgical practice, the post operative management begins from the day the surgery is performed till the time the patient is mentally as well as physically fit to resume his normal day to day activities. A complete and effective ayurvedic post operative pain management is very much needed.

Triphala guggulu, Gandhak Rasayana and Asanaadi Kwatha are well known drugs in post operative wound and pain management but at times they are not enough. Hence Bala Taila matrabasti is used as an addition in this study. A comparative study is planned for pain management in post operative phase surgery of hydrocele.

Material and Methods: Patients who have undergone elective surgery of hydrocele were selected and randomly grouped into two, control group and trial group. Gandhaka Rasayana, Triphala Guggulu and Asandi Quatha were given orally as routine post-operative treatment. Trial group patients were given Bala Taila matrabasti in addition. They were further evaluated for effective pain relief.

Results: Administration of balataila matrabasti along with conventional internal medication reduces the episodes of pain and tenderness in post operative cases of hydrocele throughout their hospital stay.

Conclusion: Addition of Bala Taila matrabasti improves efficacy of Gandhaka Rasayana, Triphala Guggulu and Asandi Quatha in routine post operative management.

Key words: Pain management; Hydrocele; Balataila matrabasti

Introduction : Aim of Medical Science is to provide better health to every human being Various streams of Medical Sciences with different principles and fundamentals are trying their best for one common goal i.e. Health for all.

Triphala guggulu, Gandhak Rasayana and Asanaadi Kwatha are well studied drugs in post operative wound and pain management[1-3] but at times they are not enough. Also, Oral administration has a limitation in immediate post operative period.

Hence Bala Taila matrabasti is used as an addition in this study to establish a complete ayurvedic pain management combination in post operative phase of Hydrocele. Moreover Basti could be a cost effective, reliable and technically simple mode of drug administration in pain management.

Material and Methods :20 patients undergoing elective surgery for Hydrocele were selected from one ayurvedic hospital for this study. After obtaining Institutional Review Board approval, patients were randomly selected and grouped in 2 groups i.e. Control and Trial
In the control group,Tab Triphala guggulu 450mg t.d.s., Tab Gandhak rasayana 250mg t.d.s. and Asanaadi kwatha 40ml b.d. were administered.In the trial group, Bala taila matra basti was given additionally. The dose of Bala taila matra basti was 30ml, given on previous night before surgery and then repeated once daily till removal of sutures.

Medicines were administered for 7 days in both control and trial group**.**
The patients were observed and assessed daily for a week in the post-operative period till the removal of sutures. Assessment of pain was done once daily.
Results : All patients who were recruited for study were observed through the period of study and the collected data were subjected to statistical evaluation. The details are being put forth here.

Table no. 1 : Age Distribution

Age (in yrs)	**Control group**	**Trial group**	**Total**	**%**
11-20	0	0	0	0
21-30	2	5	7	35
31-40	5	2	7	35
41-50	0	0	0	0
51-60	2	3	5	25
61-70	1	0	1	5

The Table No. 1 shows that incidence of inguinal hernia was found to be more in age groups from 20 to 40 years.

All the 20 patients who were registered for the study were assessed for intensity of pain and tenderness in post operative period. The details recorded are being put forth here.

Comparison between the Control and Trial Group:

- The Statistical analysis was done using Sigma Stat version 3.1 software.
- Unpaired t- test was used for comparing the results between the groups.

Intensity of pain:

Group	Mean	Difference in mean	Unpaired 't' test			
			S.D.	S.E.M.	't'	P
Control	1.000	0.900	0.304	0.0962	8.267	<0.001
Trial	0.1000		0.161	0.0509		

The mean intensity of pain during all observations in control group was 1.000 whereas in trial group it was 0.1000. The difference in the mean values was 0.900 hence the difference in the mean values of the two groups is greater than would be expected by chance. There is a statistically significant difference between the input groups (P = <0.001). Further details with standard deviation, standard error of Mean, t value and P value are given in above table.

Tenderness:

Group	**Mean**	**Difference in mean**	**Unpaired 't' test**			
			S.D.	**S.E.M.**	**'t'**	**P**
Control	1.083	0.884	0.668	0.211	3.928	<0.001
Trial	0.200		0.245	0.0775		

The mean of control group is 1.083 whereas trial group is 0.200 and the difference in the mean values is 0.884 hence the difference in the mean values of the two groups is greater than would be expected by chance. There is a statistically significant difference between the input groups (P = <0.001). Further details with standard deviation, standard error of Mean, t value and P value are given in above table.

Discussion: Fear of severe pain after surgery is one of the main concerns of many patients who undergo surgery. There seems to be some justification for this fear. The management of postoperative pain is possibly still suboptimal in many institutions. There are many different types of surgery. Pain has always associated with surgery. . It used to be that postsurgical pain was very poorly managed and little was done to relieve the patient from pain[4]. This was because pain was not well-understood by physicians. It was assumed that the pain is just an inevitable part of surgery and would settle eventually. But clinical studies reveal that recovery is faster with fewer complications when pain is treated aggressively after surgery[5].

In this randomized, prospective clinical study, the analgesic effect of Triphala guggulu, Gandhak Rasayana and Asanaadi Kwatha on post-operative patients of Hydrocele was assessed. Then it was compared with another group of patients where Bala Taila matrabasti was given additionally along with the same above drugs.

There is a variation in the intensity of pain and tenderness in the control and trial groups. The results observed in both the groups showed that administration of Bala Taila matrabasti along with conventional internal medication reduces the intensity of pain and tenderness in post operative cases of hydrocele throughout their hospital stay and the results obtained are statistically highly significant.

Conclusion: Hydrocele patients do complain of pain after surgery which varies from patient to patient. The present study was designed for management of postoperative pain in hydrocele using Bala Taila matrabasti along with internal medication. Results show that there is a definite and statistically significant advantage of addition of Bala Taila matrabasti over the conventional post-operative pain treatment protocol which included administration of internal medication alone.

So, it can be firmly concluded that pain in post operative cases of hydrocele can be effectively managed by a combination treatment protocol including Triphala guggulu, Gandhak Rasayana, Asanaadi kwatha and Bala Taila matrabasti

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Role of Marma Therapy in Sandhishool (Joint Pain)

*Dr.Satyendra Kushwaha **Dr.R.K.Jaisawal ***Dr.D.N.Pande

ABSTRACT: Ayurveda, the science of life, is time tested science which does not require experimental evidences. It's all principles are universally applicable to each individual to have a long healthy life. It is such a treaty which is enriched in medicaments and different management for number of diseases. At present the human society is leading with mechanical life, frequent changing of lifestyle, environmental factors, climate, etc. The busy schedule, restlessness, anxiety, stress & strain, running after comfortable life, comparing to higher group curses different psychosomatic disorders. The major somatic disorders involves, the constant work schedule in improper sitting posture, continuous & over exertion, prolonged travelling by different vehicles, less sports activities, exercises, etc. which in fact cause undue pressure on spinal cord, knee joints, shoulder joints, wrist joint, etc. and produce pain. Alternative therapies refer to a broad group of natural and spiritual healing methods are different than the conventional western medicine (or pharmaceutical medicine). Many of these healing methods have been used for centuries in many different cultures. Ayurveda, Acupuncture, Aromatherapy, Herbal therapy, Meditation, Naturopathy, Traditional Chinese Medicine (TCM), etc. are some examples. Agnikarm and Marma science is one of the special aspects deeply elaborated by Ayurveda. Marma are several vital points on the body having importance regarding traumatic effect.These points when exposed to trauma, generate the symptoms from pain to fatal effect. These points should be protected from injury. On the other hand these marma are considered as healing points. Marma chikitsa provide tridosha- trigunasamnya(equilibrium) as these points are seat of prana.

Keywords: Marma chikitsa, Marma,Vital Points, Pain, Agnikarma.

INTRODUCTION:

Sushruta has mentioned different methods of management of diseases, such as Bheshaja karma, Kshara Karma, Agni Karma, Shastrakarma and Raktamokshana. The approach of Agni Karma has been mentioned in the context of diseases like Arsha, Arbuda, Bhagandar, Sira, Snayu, Asthi, Sandhigata Vata Vikaras and Gridhrasi. Gridhrasi is seen as a panic condition in the society as it is one of the burning problems, especially in the life of daily labourers. It is characterized by distinct pain starting from Sphik Pradesha (gluteal region) and goes down toward the Parshni Pratyanguli (foot region) of the affected side of leg. On the basis of symptomatology, Gridhrasi may be simulated with the disease sciatica in modern science. In modern medicine, the disease sciatica is managed only with potent analgesics or some sort of surgical interventions which have their own limitations and adverse effects, whereas in Ayurveda, various treatment modalities like Siravedha, Agni karma, Basti Chikitsa and palliative medicines are used successfully. Among these, Agni Karma procedure seems to be more effective by providing timely relief. Shalakas for Agni Karma made up of different Dhatus like gold, silver, copper, iron, etc. for different stages of the disease condition have been proposed.

***M.D.(Ay) 3rd year ** Asst. Professor *** Professor & Head, Deptt. of Sangyaharan, I.M.S..B.H.U.,Varanasi-221005.**

Marma science of Ayurveda has covered a long spells, from Vedic era to till date. The concept of Marma is one such imperative and unique principle of Ayurveda. In ancient literature, science of Marma was limited to the war science and Marma points were mainly considered as only fatal points i.e. trauma to them leads to debility or even death as these are seat of Prana (life energy) but in present era its applied aspect, that is, stimulation of these Marma by means of Abhyanga (massage), Mardana (Acupressure), Aroma therapy, Pranic healing, Herbs (lepa), Raktamokshan (blood letting) and Agni karma (heat application),etc is utilised to treat disease but Marma chikitsa, a therapy practised by few practitioners to stimulate these Marma points directly by applying pressure, vibrating tendons, pinching or application of hot and cold pastes, oils and ointment on Marma depending on the type of Marma had emerged as new dimension in non pharmacological treatment of Ayurveda. The concept of Marma has its root in Vedas and from vedic era to till date, it is still surviving due to its importance for human life. Ayurveda consider that there are 107 Marma points/ regions in the body that must be protected. Marma science was basically considered as war science in which the knowledge of Marmas was very crucial because the protection of these parts of body is mandatory for survival. These body regions are the considered as seat of Prana (life energy).

AIMS- To compare the effectiveness of Agni Karma and Marma Therapy.

OBJECTIVES:

To explore the literature regarding Agni Karma and Marma Therapy in Ayurvedic and modern text.

To evaluate the effectiveness of Agni Karm and Marma Therapy for management of Pain-Vedana .

To compare the efficacy of Agni Karma with Marma Therapy to explore a suitable conservative treatment for joint pain management.

To reduce the severity and duration of painful condition.

To provide cheap, safe and effective treatment in joint pain management.

To study associated benefits as well as side effects of Agni karma and Marma Therapy which are not mentioned in ancient classics?

To standardize an Ayurvedic line of treatment which may prove effective in the management of the joint pain?

PLAN OF STUDY :

Study was planned under two headings

Conceptual study

Clinical study

1.Conceptual study-

In this part a detailed study of the literature related to Agni Karma, Marma Therapy, Vedana, Pain, Agni Karma procedure and drug has been carried out to have clear idea about the mechanism of the pain pathway and available procedure of management.

2.Clinical study -

Clinical study was carried out by dividing patients in two groups:

Group A - 30Patients with Agni Karma Therapy

Group B - 30Patients with Marma (Chikitsa) Therapy.

EXAMINATION AND ASSESSMENT:

After the registration of the patient, the detailed history was taken and complete physical examination was performed. All findings were noted down in a set proforma, if he/she fulfilled the conditions of inclusion criteria.

Particulars of the patient including age, sex, occupation, socio-economic status, religion, dietic habits etc.

Chief complaints with duration of symptoms, their commencement, history of present illness including history of trauma, straining and nature of pain.

History of past illness, particularly regarding trauma/straining of affected part.

CLINICAL STUDY-

1.Selection of patients

All the patients attending Sangyaharan Vedanahar Clinic suffering from Sandhivata, Gridhrasi, Kativata and different type of Sandhishool were selected for this study.

2.Inclusion criteria

Patients having typical clinical features pertaining to above condition.

Patients willing to undergo trial.

Patients between age group 20-70 years, of either sex.

3.Exclusion criteria

Patients below 20 years and above 70 years of age.

Patients not willing to undergo trial.

Patient suffering from diabetes mellitus, tubercular arthritis, etc.

Patients of Paittik Prakriti, Alpa Satva, Avar Sahanam, Pregnant woman.

4.LABORATORY INVESTIGATIONS

Blood investigation - Hb, TLC, DLC, ESR.

FBS, BU, S. Creatinine, S. Uric acid, R.A. Factor.

X-ray of the affected part of the body.

5.GROUPING OF PATIENT

Patients suffering from Sandhigata Vata, Gridhrasi, Kati Vat etc. were selected from Sangyaharan Vedanahar O.P.D. Selected patients were randomly divided in two groups as below -

Table :The number of patients and nature of treatment in the selected two groups-

Groups	No. of Patients	Treatment
GroupA	30	Agni karma Chikitsa Exercise – Simple exercise of affected joint for a few minutes at a time but several times a day.
GroupB	30	MarmaChikitsa-Therapy

Technique of marma therapy –

1. Identification – Identification of each marma is very important for optimum result and should be done under expert guidance only.

2. Stimulation – 3 to 4 times a day, each marma for 20 to 25 times in one setting.

3. Rhythm – As our respiration, approx 18 times per mint.

4. Position – It can be done both in sitting and supine position, however for optimum results various Asanas and postures have been described in various texts.

5. Treatment duration – Duration of therapy depends on various factors viz. Severity, duration of disease, cause of the pain.

OBSERVATION AND REASULT-

Effect On Visual Analogue Scale (Vas) –

Table :The statistical comparison of difference in mean of visual analogue scale between the Agni Karma and Marma groups at corresponding time i.e. before treatment and after treatment by applying student t-test, p-values and remarks are as follows:

Group		VAS Before Treatment Mean ±SD	VAS After treatment Mean ±SD
Group A		5.7 ± 0.94	2.35 ± 1.17
Group B		5.61 ± 1.41	3.66 ± 1.18
Comparison between groups unpaired 't' test	t value	t = -1.19	t = -0.41
	p-value	p > 0.05	P > 0.05
Remark		NS	NS

Table shows that mean of visual analogue scale in-group A (Agni Karma) before and after treatment was 5.7 ± 0.94 and 2.35 ± 1.17 respectively, while in group B (Marma) it was 5.61 ± 1.41 and 3.66 ± 1.18 respectively.

The above statistical comparison represents that difference in mean of visual analogue scale between group A and group B at corresponding timings are statistically insignificant.

The statistical comparison of visual analogue scale before treatment and after treatment within the group by applying paired t-test, p-values and remarks are as follows-

Group		Group A	Group B
VAS Before Treatment Mean ±SD		5.7 ± 0.94	5.61 ± 1.41
VAS After treatment Mean ±SD		2.35 ± 1.17	3.66 ± 1.18
Comparison within the group	t value	t = 18.21	t = 7.77
	p-value	p < 0.01	P < 0.05
Remark		HS	S

From Table it is observed that changes in visual analogue scale is significant in both groups observed at before treatment vs. after treatment.

Effect On Karnofsky Scale (Ksky)-

Table :The statistical comparison of difference in mean of Karnofsky pain scale between the Agni Karma and Marma at corresponding time i.e. before treatment and after treatment by applying student t-test, p-values and remarks are as follows:

Group		KSKY Before Treatment Mean ±SD	KSKY After Treatment Mean ±SD
Group A		67.00±7.32	98.50 ±3.66
Group B		63.00±5.71	89.00±7.88
Comparison between groups unpaired 't' test	t value	t = -1.925	t = 4.889
	p-value	p > 0.05	P < 0.001
Remark		NS	HS

Table shows that mean of Karnofsky pain scale in-group A (Agni Karma) before and after treatment was 67.00±7.32 and 98.50 ±3.660 respectively, while in group B (Marma) it was 63.00±5.71± 0.70 and 89.00±7.88 respectively.

The above statistical comparison represents that difference in mean of Karnofsky pain scale between group A and group B at corresponding timings are statistically highly significant.

Table : The statistical comparison of Karnofsky pain scale before treatment and after treatment within the group by applying paired t-test, p-values and remarks are as follows-

Group		Group A	Group B
KSKY Before Treatment Mean ±SD		67.00±7.32	63.00±5.71
KSKY After treatment Mean ±SD		98.50 ±3.66	89.00±7.88
Comparison within the group	t value	t = 23.132	t = 10.341
	p-value	p < 0.001	P < 0.001
Remark		HS	HS

From Table it is observed that changes in Karnofsky pain scale is highly significant in both groups observed at before treatment vs. after treatment.

Effect On Pricking Sensation (Pricking Scale)-

Table : The statistical comparison of difference in mean of Pricking scale between the Agni Karma and Marma groups at corresponding time i.e. before treatment and after treatment by applying student t-test, p-values and remarks are as follows:

Group		Before Treatment Mean ±SD	After treatment Mean ±SD
Group A		1.33 ± 0.59	0.33 ± 0.48
Group B		1.05 ± 0.97	0.105 ± 0.32
Comparison between groups unpaired 't' test	t value	t = 1.65	t = -1.39
	p-value	p > 0.05	P > 0.05
Remark		NS	NS

Table shows that mean of Pricking scale in-group A (Agni Karma) before and after treatment was 1.33 ± 0.59 and 0.33 ± 0.48 respectively, while in group B (Marma) it was 1.05 ± 0.97 and .105 ± 0.32 respectively.

The above statistical comparison represents that difference in mean of pricking scale between group A and group B at corresponding timings are statistically insignificant.

Table : The statistical comparison of pricking scale before treatment and after treatment within the group by applying paired t-test, p-values and remarks are as follows-

Group		Group A	Group B
Before Treatment Mean ±SD		1.33 ± 0.59	1.05 ± 0.97
After treatment Mean ±SD		0.33 ± 0.48	0.105 ± 0.32
Comparison within the group	t value	t = 7.67	t = 7.11
	p-value	p < 0.05	P < 0.05
Remark		S	S

From Table it is observed that changes in Pricking scale is significant in both groups observed at before treatment vs. after treatment.

Effect On Pain Radiation-

Table : The statistical comparison of difference in mean of radiation of pain scale between the Agni Karma and Marma groups at corresponding time i.e. before treatment and after treatment by applying student t-test, p-values and remarks are as follows:

Group		Before Treatment Mean ±SD	After treatment Mean ±SD
Group A		1.89 ± 1.93	0.05 ± 0.22
Group B		1.66 ± 1.23	0.11 ± 0.32
Comparison between groups unpaired 't' test	t value	t = -1.44	t = -0.81
	p-value	p > 0.05	P > 0.05
Remark		NS	NS

Table shows that mean of radiation of pain scale in-group A (Agni Karma) before and after treatment was 1.89 ±1.93 and 0.05 ± 0.22 respectively, while in group B (Marma) it was 1.66 ± 1.23 and 0.11 ± 0.32 respectively.

The above statistical comparison represents that difference in mean of radiation of pain scale between group A and group B at corresponding timings are statistically insignificant.

Table :The statistical comparison of radiation of pain scale before treatment and after treatment within the groups by applying paired t-test, p-values and remarks are as follows-

Group		Group A	Group B
Before Treatment Mean ±SD		1.89 ± 1.93	1.66 ± 1.23
After treatment Mean ±SD		0.05 ± 0.22	0.11 ± 0.32
Comparison within the group	t value	t = 5.43	t = 3.91
	p-value	p < 0.05	P < 0.05
Remark		S	S

From Table it is observed that changes in radiation of pain scale is significant in both groups observed at before treatment vs. after treatment.

Effect On Tenderness –

Table : The statistical comparison of difference in mean of tenderness scale between the Agni Karma and Marma groups at corresponding time i.e. before treatment and after treatment by applying student t-test, p-values and remarks are as follows:

Group		Before Treatment Mean ±SD	After treatment Mean ±SD
Group A		1.27 ± 0.46	0.38 ± 0.50
Group B		1.05 ± 0.59	0.15 ± 0.38
Comparison between groups unpaired 't' test	t value	t = -0.67	t = 1.01
	p-value	p > 0.05	p > 0.05
Remark		NS	NS

Table shows that mean of tenderness scale in-group A (Agni Karma) before and after treatment was 1.27 ± 0.46 and 0.38 ± 0.50 respectively, while in group B (Marma) it was 1.05 ± 0.59 and 0.15 ± 0.38 respectively.

The above statistical comparison represents that difference in mean of tenderness scale between group A and group B at corresponding timings are statistically insignificant.

Table : he statistical comparison of tenderness scale before treatment and after treatment within the groups by applying paired t-test, p-values and remarks are as follows-

Group		Group A	Group B
Before Treatment Mean ±SD		1.27 ± 0.46	1.05 ± 0.59
After treatment Mean ±SD		0.38 ± 0.50	0.15 ± 0.38
Comparison within the group	t value	t = 4.45	t = 6.14
	p-value	p < 0.05	P < 0.05
Remark		S	S

From aboveTable it is observed that changes in tenderness scale is significant in both groups observed at before treatment vs. after treatment.

SUMMARY -

The patients of group A, was treated with Shalaka Agni Karma in three sitting in one week interval. The patients of group B, was treated with Marma Chikitsa in three sitting in one week interval.

Both the groups were followed after twenty one days for observation and result of treatment.

The clinical assessment of the present study was made under following parameters:

Pain- Visual Analogue Scale, Pricking sensation. Radiation of pain, Tenderness, Ability to do daily routine work- Karnofsky Scale and Change in the range of movement- Stiffness.

Statistical comparison of Visual Analogue Scale before treatment and after treatment within the group was significant in both the group. It means that significant pain relief is achieved by trial procedure used for present study.

];'Statistical comparison of mean of Karnofsky scale before treatment and after treatment within the group was also significant in both the group. It means that significant pain relief is achieved in both the groups which enhancing the daily work performance of the patient. Statistical comparison of mean of Pricking sensation scale, pain Radiation scale, Tenderness scale before treatment and after treatment within the group was significant in both the group. It reflects that Agni Karma gives very beneficial effect in other modalities of pain like pricking, radiating and tenderness also.

The desirable and undesirable effects like sedation, excitement, dizziness, nausea, and vomiting were not present significantly in both groups. Whereas in some patients of the both groups apprehension was observed, which are insignificant and identical, this also proves that trial parasurgical procedure did not produce any undesirable effect.

CONCLUSION-

This can be concluded on the basis of the above observations made on patients treated by Agni Karma chikitsa with Shalaka and Marma chikitsa -

The trial procedure Agni Karma with Shalaka and Marma chikitsa has Vedanahar (analgesic) and Shothahar (anti-inflammatory) properties.

Agni Karma with Shalaka and Marma chikitsa is a simple modality of treatment with minimum complication, which can be done easily.

Agni Karma Chikitsa with Shalaka and Marma chikitsa does not produce any significant side effects.

Agni Karma Chikitsa with Shalaka and Marma chikitsa does not alter normal physiology. No significant changes were observed in mean blood pressure, pulse rate, respiratory rate and oxygen saturation during the whole course of the clinical study.

The Agni Karma Chikitsa with Shalaka and Marma chikitsa is almost equally effective as Vedanahar analgesic.

Number of sittings of Agni Karma depends upon the chronicity and severity of disease.

The efficacy of treatment of Agni Karma with Shalaka and Marma chikitsa is identical.

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Acupunture Point and its clinical importance

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Abstract: Acupuncture is an ancient form of bodywork used originally in Oriental medicine.Over the last several decades, it has gained increasing acceptance in the Western world as well.

The overall concept behind acupuncture and its close relative, acupressure, is that the body runs on energy, or qi (pronounced "chee").

The energy system involves defined pathways known as meridians, each of which has multiple acupuncture points that affect various organs, areas or body systems. There are hundreds, even thousands, of points running throughout the body, and modern CT scans have even shown micro-vessel cluster points coinciding with these points in the body.

The foundational concept of acupuncture is done is through stimulating the acupuncture points to correct imbalances or blockages in the flow of energy and ultimately to restore health.

Acupuncture Points: Traditional Chinese medicine practitioners believe there are at least 2,000 acupuncture points in the body.

The World Health Organization (WHO) developed *A Proposed Standard International Acupuncture Nomenclature Report* in 1991, which identifies 361 acupuncture points.

According to WHO, acupuncture points are organized according to their location on each of the fourteen major meridians.

WHO's standard nomenclature also identifies eight extra meridians, 48 extra acupuncture points and additional acupuncture points in the scalp.

So in other words, no matter you go about it, there are a lot of acupuncture points!

Locating the Acupuncture Points: The identification of all possible acupuncture points .Some include common names, but all are also identified by specific ID system.

Although different systems have been used, in most cases, each acupuncture point is identified with letters that indicate the meridian on which it is located and a number to indicate its position along the meridian.

Acupuncture points are numbered in sequence, but the sequence may begin at the most distal (farthest) point or the most proximal (nearest point) to the body center.

For example, the numbering system for the stomach meridian begins near the eye and runs down across the chest and abdomen.

The large intestine meridian begins at the index finger and runs up the arm to the area of the nose.

In some cases, acupuncture points correlate to a specific anatomical point or structure.

For example, the L13 point called Sanjian is on the radial (wrist) side of the index finger next to the head of the metacarpal bone. In other cases, the acupuncture point is found by measuring from an anatomical landmark such as a joint or other structure.

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In acupuncture, measurements are derived from the patient's body. One "body inch" (sun or cun) is the width of the thumb.

Measurements are expressed in body inches. The CV5 point called Shimen is located by measuring from the umbilicus or navel. CV5 is 2 cun below the umbilicus.

14 primary meridians according to W. H.O. :

1. Bladder – Begins in the eye and runs through the forehead and over the top of the skull; it splits just below the hairline in back. One branch travels down the shoulder blade and straight down to the middle of the low back, while the other travels down just to the outside of the spine and down the back of the leg to the heel. Contains 67 different acupuncture points on each side of the body.

2. Conception Vessel – Begins just above the middle of the pelvic bone and travels straight up the middle of the body to just below the lower lip. Contains 24 different acupuncture points.

3. Gallbladder – Starts at the inner corner of the eye, zigzags back and forth across the skull and then runs down the neck across the shoulder and again zigzags back and forth across the chest and abdomen. From there it travels down the outside of the leg and foot to the tip of the fourth toe. Contains 44 different acupuncture points on each side of the body.

4. Governing Vessel – Begins just above the tailbone and travels straight up the middle of the body, over the skull to just above the upper lip. Contains 28 different acupuncture points.

5. Heart – Begins in the armpit and travels down the nearside of the arm to the tip of the little finger. Contains 9 different acupuncture points on each side of the body.

6. Kidney – Starts in the arch of the foot and runs up the inside of the leg and just to the side of the mid-line of the abdomen and chest to the collarbone. Contains 27 different acupuncture points on each side of the body.

7. Large Intestine – Starts at the tip of the index finger along the upper side of the arm and runs to the highest point of the shoulder, across the collarbone and up the cheek to the nose. Contains 20 different acupuncture points on each side of the body.

8. Liver – Originates in the great toe, travels up the inside of the leg to the groin and then crosses the body to travel up to just below the nipple. Contains 14 different acupuncture points on each side of the body.

9. Lung – Begins on the chest near the armpit and runs down the top of the arm to the thumb. Contains 11 different acupuncture points on each side of the body.

10. Pericardium – Runs from the side of the nipple through the armpit and down the arm to the tip of the middle finger. Contains 9 different acupuncture points on each side of the body.

11. Small Intestine – Starts in the tip of the little finger and runs up the outside of the arm around the shoulder blade to the neck, then up to the eye and across to the ear. Contains 19 different acupuncture points on each side of the body.

12. Spleen – Begins in the tip of the big toe and travels up the leg to the thigh, through the groin and across the abdomen and up the ribs to a point on the chest below the armpit. Contains 21 different acupuncture points on each side of the body.

13. Stomach – Originates directly below the pupil of the eye and travels down the nose to the jaw, where it splits. One part goes up the scalp and the other travels down the neck, chest and abdomen through the thigh and down to the side of the tip of the second toe. Contains 45 different acupuncture points on each side of the body.

14. Triple Energizer or Triple Warmer – Begins in the tip of the ring finger, travels up the arm to the shoulder and up the neck to the ear, then across the forehead, down the cheek to the end of the eyebrow. Contains 23 different acupuncture points on each side of the body.

Cardinal Points – Certain acupuncture points are known as cardinal points; they are specific for a particular condition or area. For example, P6 is specific to the respiratory system, while TW5 is specific to the ear. ST36 increases energy, GB34 affects the bones and GB20 affects memory and mental processes. BL17 can help regulate blood sugar levels in patients who have diabetes.

Acupuncture Points Work: The knowledge of actual locations of the different acupuncture points developed over thousands of years.

How they work depends on who you ask. Modern science is only beginning to uncover how this practice actually affects the body.

Medical research is currently inconclusive, but…

- One theory is that placing a needle in an acupuncture point stimulates the release of a chemical called adenosine, which can help relieve pain.
- Another is that placing an acupuncture needle stimulates the nerve pathway and signals the brain to release hormones called endorphins, which can also help relieve pain.
- Yet another hypothesis suggests acupuncture decreases inflammation.
- A final theory is that placing the needle stimulates the nerve to secrete a growth factor that helps the nerve regenerate.

Whatever the reason they affect the body, the acupuncture points work by activating each point with a variety of methods – needles being the most well-known way.

But the truth is:

Acupuncturists stimulate the points in several ways.

There is the use of very fine sterilized gold or stainless steel needles – acupuncture needles we all know about.

In addition, an acupuncturist may also use direct pressure with the fingers or thumbs (acupressure), heat, friction, suction through the use of special cups (cupping), and the direct application of electromagnetic energy impulses.

Each have their own particular benefit and purpose for the patient.

And all work under the same fundamental Chinese Medicine principles.

The Science of Acupuncture: While having been successfully used for thousands of years to help people treat conditions and live better lives, latest modern science is also backing up the effectiveness of these specific acupuncture points.There is good evidence that acupuncture can help people with chronic pain and conditions like fibromyalgia.

It has also been shown to be beneficial for nausea caused by anesthetic drugs and chemotherapy.

Some people who have migraine headaches and asthma respond to acupuncture treatments. Acupuncture is effective in treating other conditions like metabolic disorder diabetes and heart disease.

Acupuncture is like any other medical therapy – it may be more or less effective for each individual patient.And each patient will respond differently to acupuncture.

The risks are minimal, as long as the treatment is performed by a well-qualified practitioner.

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Scope and application of some herbal drugs as an adjuvant in cancer therapy

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Abstract: Cancer is one of the most dreadful disease of the present century. It is second most common non communicable disease after the ischemic heart disease. Many efforts have been taken but still we are unsuccessful to manage this disease. A study shows that 7 lakh people died of cancer every year in India and the prevalence is higher in male than in female [1]. There are no fruitful results after spending so much money on finding better management. So an integrated approach is needed to conquer this disease. The science of life- Ayurveda is supposed to find a better answer to its cure. *Acharya sushruta* has mentioned *Granthi* and Arbuda which have resemblance with the clinical entities of the Cancer. Many drugs mentioned in the Ayurvedic texts have proven anti-cancer property. The present article explores the use and applications of herbal drugs as an adjuvant in the treatment of cancer therapy.

Key-words : cancer, herbal, palliative, pippali, kalmegh, amalaki , shatavari

Introduction: The word Cancer is derived from the Greek meaning 'CRAB'. W. R. Belt suggested that the terminology of cancer is used for its adherence with such obstinacy to the part i.e. like a crab and cannot be separated from each other. The identification and differentiation of malignant diseases have been enlightened much later than the description available in ancient Indian literature. Earliest and foremost record could be seen in Atharva Veda, where the disease was nomenclature as "APACIT". They presented their views regarding cancer as a swelling both superficial and situated in the deeper structure or sometimes as chronic ulcers. Such swellings or lumps are considered as arbuda.

Definition:

In *Sushrutasamhita* the term *Arbuda* has been described as,

गात्रप्रदेशेक्वचिदेवदोषाःसम्मूर्च्छितामांसमभिप्रदूष्य |
वृत्तंस्थिरंमन्दरुजंमहान्तमनल्पमूलंचिरवृद्ध्यपाकम् ||१३||
कुर्वन्तिमांसोपचयंतुशोफंतमर्बुदंशास्त्रविदोवदन्ति|१४|..... (su. ni 11/13)

Vitiated tridosh (vata and other doshas) derange *mamsa* and *raktadhatu*and form rounded, slow growing, fixed, slightly painful, large, deep seated, non-suppurating, fleshy mass, arising anywhere in the body.[2]

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A tumor is a new formation of cells of independent growth usually arranged atypically, which fulfils no useful function and has no typical termination.

Etiopathogenesis of Arbuda:

It is based mainly on theory of Tridosha i.e. Vata, Pitta and Kapha. Further by MithyaAhara and Vihara the different humors are vitiated involving different Dhatus (Mamsa, Meda, Rakta, etc) resulting in the prescription of Arubuda.

Though vitiated "Dosa" are responsible for the development of Arbuda, almost all Ayurvedic texts have given maximum importance to Kapha. Susruta has mentioned that due to excess of Kapha, Arbuda does not suppurate[3]. which is considered to be the common and important factor for any growth in the body. Thus, it seems justified to postulate that excess of vitiated Kapha in the body might be responsible for the precipitation of cancer.Irritation [4] and trauma may precipitate or activate the formation of Arbuda [5].

According to Susruta, trauma is considered to be another causative factor for the development of Mamsarbuda, whereasVagbhata has described that whenever, there is excessive formation of MamsaDhatu it may lead to various pathological conditions [6] such as Galaganda, Gandamala, Arbuda, Granthi and Adhimamsa. It indicates that MithyaAhara and MithyaVihara probably changes local or systematic bio chemical factors [7] including the haemodynamics (S.N. 11/16) leading to the origin of Arbuda.

Classification of Arbuda-[8]

वातेनपित्तेनकफेनचापिरक्तेनमांसेनचमेदसाच ॥१४॥…….. (su.ni 11/14)

1.	Depending on Dosha	1.Vataj	2.Pittaj	
		3.Kaphaj	4.Tridoshaj	
2.	On the basis of Dhatu	1.Raktarbuda	2.Mamsa	3.Medoja
3.	On the basis of metastasis	1.Raktarbuda	2.Adhyarbuda	3.Dviarbuda
4.	According to site	1.Vartmaarbuda	2.karnarbuda	3.Nasarbuda
		4.Taluarbuda	5.Jalarbuda	6.Galarbuda
		7.Mukharbuda	8.Shiro arbuda	9.Shukrarbuda
5.	According to prognosis	1.Sadhya	2.Asadhya	
6.	On the basis of treatment	1.Naveen	2.Jeerna	
7.	Modern classification	1.Benign	2.Malignant	

Management:

Treatment modalities of cancer-

Cancer is mentioned as incurable and difficult to treat but these are certain treatment principles described in Ayurveda:

1. ***Śodhana Cikitsā*** (purification process)

This eliminates the vitiated *doṣas*. It is primarily used for the medical management of cancer.

2. ***Pañca Karma Cikitsā***

Here, both internal and external medications are given. It is a totally rejuvenating treatment.

3. ***Śamana Cikitsā***

This pacifies the *doṣas* and gradually relieves the disease. However, this treatment is prescribed only to weaker patients for whom *śodhanacikitsā*is contra-indicated.

4. **Rasāyana Prayoga** (immunotherapy)

Here certain poisonous plants, mercury-like metals and animal products are rendered non-toxic and harmless by the use of alchemy and are used as rejuvenating drugs.

Other methods of treatment include *dhātvagnicikitsā* (correction of metabolic defects), *vyādhipratyanikacikitsā* (specific anti-cancerous drugs) and *lākṣaṇikacikitsā* (symptomatic treatment).

When medical treatment practices failed, then the case was left to surgeons. Āyurvedic surgeons could open the tumour, surgically evacuate its contents or cauterise. Post-operative care for healing the wound was naturally done. *Arbuda* recessitated complete excision of the growth from its root followed by cauterisation.

Ayurvedic therapy as a co-therapy along with Chemo or Radiation therapy

It is of paramount importance to find a solution for combating this dreadful disease. Though there are explanation about shastrakriyas (surgical procedures) and agni karmas (radiation) in various classics in Ayurvedic system of medicine but in the present era, the allopathic system of medicine is in hand with treating cancer by surgical methods followed by chemo or radiation. Chemotherapy is the significant medical modality of cancer remedy in Allopathic system of medicine and the chemicals used in chemo therapy targets the fast-multiplying mutant cells but it is a big question about the side effects of chemo and radiation. However, the toxicity to normal tissues of the body proves to be an obstacle. The generation of aldehydes during chemotherapy could be reduced by the use ofantioxidants from herbal preparation used in Ayurvedic system of medicine. Therefore many researches are conducted at phyto-chemical levels, pharmacological levels and clinically on herbs to study the anti-cancerous effect and to develop the immune system in the cancer patients there by combating the side effects of chemo.

Some of theherbal drugs that may play an effective and important role in clinical practice for the management of cancer and ill effects of conventional cancer therapy-

1)Pippali (*Piper longum***)**
2)Kalmegh (*Andrographispaniculata***)**
3)Amalaki (:*Emblicaofficinale***)**
4)Shatavari (*Aspargusracemosa***)**

1) Pippali

- **Latin Name:** *Piper longum*
- **Family:***Piperaceae*
- **Guna***: Laghu, Snigdha, Teekshna,*
- ***Rasa:*** *Katu*
- ***Veerya:*** *Ushna*
- ***Vipaak:*** *Madhur*
- **Useful part:** *Fruit*
- **Dose:***1 to 4 gms*

CHEMICAL CONSTITUENTS:

- **Alkaloids and Amides:**Piperine, Piperlongumine,Piperlonguminine,methyl 3-4 5 trimehoxycinnmate[9]
- **Lignans**:Sesamin, pulvuatilol, fargesin and others have been isolated from the fruit of P. longum[10,11]

PROPERTIES: It balances vata and kaphadosha. It is rasayani and gulmahara (useful in tumor).

Antitumor activity: Studies have shown that piperine is having anti tumor activity. It inhibits VEGF and proinflammatory cytokines and tumor-induced angiogenesis in C57BL/6 mice. Piperlongumine selectively kills cancer cells and increases cisplatin antitumor activity in head and neck cancer 4. A study has shown the cell cycle inhibitory activity of piper longum against A 549 cell line and its protective effect against metal induced toxicity in rats [12]

Piper longum is reported to exhibit significant antitubercular activity [13,14]. The effect of piperine on the inhibition of lung metastasis induced by B16F-10 melanoma cells was studied in C57BL/6 mice. Simultaneous administration of the compound with tumor induction produced a significant reduction (95.2%) in tumor nodule formation along with reduced lung collagen hydroxyproline, uronic acid and hexosamine content in the piperine-treated animals. Piperine, an alkaloid present in plants such as P. nigrum and P. longum showed significant anti-metastasis activity [15]. Piperine has chemopreventive effects when administered orally on lung cancer bearing animals [16]. Piperlonguminine showed an inhibitory effect on α-MSH-induced tyrosinase synthesis. It was found that oral administration of ethanolic extract protected the cell surface and maintained the structural integrity of the cell membranes during DMBA induced hamster buccal pouch carcinogenesis [17]. The two active principles, ethyl 3', 4', 5'trimethoxycinnamate and piperine were isolated and characterized from the combined hexane and chloroform extracts of Piper longum. The extracts significantly blocked the adhesion of neutrophils to endothelium in a time- and concentration-dependent manner. Piplartine and piperinealkaloidal amides were isolated from Piper. It showed cytotoxic activity towards several tumor cell lines82. The study clearly demonstrated that piperine has the anti-oxidative, anti-apoptotic, and restorative ability against cell proliferative mutagenic response and phenotypic alterations by piperine, suggesting its therapeutic usefulness in immunocompromised conditions [18].

Anti-inflammatory activity:

Piper longum dried fruit's oil was studied in rats using the carrageenan-induced right hind paw edema method [19]. The activity was compared with that of standard drug ibuprofen. The dried fruit's oil inhibited carrageenan-induced rat paw edema. The results indicated that the dried fruit's oil produced significant ($p < 0.001$) antiinflammatory activity when compared with the standard and untreated control.

Immunomodulatory activity:

The immunoregulatory potential of P. longum and piperinic acid, one of its active constituent, in Balb/C mice (in vivo) and human PBMCs (in vitro) models showed a dose dependent decrease of lymphocytes (CD4+ and CD8+ T cells) and cytokine levels in sensitized Balb/C mice with a marked inhibition [20]. Alcoholic extract of the fruits of P. longum and its component piperine was studied for their immunomodulatory and antitumor activity. Alcoholic extract of the fruits and piperine were found to be cytotoxic. An aqueous extract of P. longum fruit powder showed 100% giardicidal activity. P. longum was found to offer protection against externally induced stress. A famous Ayurvedic preparation containing long pepper in pipplirasyana was tested in mice infected with Giardia lamblia and found to produce significant activation of macrophages, as shown by an increased MMI and phagocytic activity [21].

2. KAALMEGHA

- **Latin Name:***Andrographispaniculata*
- **Family:***Acanthacae*
- **Guna*:*** *Laghu, Snigdha, Teekshna,*
- ***Rasa:*** *Katu*
- ***Veerya:*** *sheeta*
- ***Vipaak:*** *Katu*
- **Useful part:** *Panchang*
- **Dose:** *1 to 3gms*

CHEMICAL CONSTITUENTS:

Lactones: Andrographolide, 14 deoxyamdrographolide,the roots contain andrographin,panicolin, apigenin

Properties: It is pitta shamak hence used as a liver protector. The paste of Kalmegha is very effective in nausea and Vomitting.

Anti-tumor activity: Andrographiapaniculataa miracle herbs for cancer treatment. In vivo and in vitro studies against aflotoxin B1 toxicity [22]. The extract and isolated diterpenes (andrographiside and neo-andrographolide) from this plant are proved to be beneficial against tumour angiogenesis by their anti-lipoperoxidative action and by enhanced carcinogen detoxification action. Andrographolideinhibits proliferation and induces apoptosis of nasopharyngeal carcinoma cell line C666-1 through LKB1-AMPK-dependent signaling pathways [23].

SHATAWARI:

- **Latin Name:***Aspargusracemosa*
- **Family:***liliaceae*
- **Guna***: Guru,Sheeta.,*
- ***Rasa:*** *Madhur*
- ***Veerya:*** *sheeta*
- ***Vipaak:*** *Madhur*
- **Useful part:** *Moolatwaka*
- **Dose:** *2 to 5gms*

CHEMICAL CONSTITUENTS*:*

Steroidal saponins, known as *shatavarin*
Oligospirostanoside referred to as Immunoside
Polycyclic alkaloid-Aspargamine
Properties: it is the best vayasthapan and rasayana drug. It gives pushti to all dhatus and hence improves nourishment. It reduces many kind of swellings and inflammations.

Anti-inflammatory activity:

Administration of 200 mg/kg (i.p.) leading to substantial reductions in skin thickness,tissue weight and also inflammatory cytokine production, neutrophil-mediated myeloperoxidase activity, and various histopathological indicators. Additionally Angiotensin converting enzyme have effective to reducing inflammatory damage induced by chronic TPA exposure and a significant inhibition of vascular permeability induced by acetic acid (Lee et al., 2009).

Antiproliferative activity:

The steroidal constituents such as Shatavarin I-IV isolated from A. racemosus used in cancer cell lines. They were given at different concentrations to each line. The mortality rate and viability of cells were recorded parallelly in a given set of intervals]. Two techniques are used during the experiment such as Sulforhodamine B cytotoxicity assay and M30 Cyto Death ELISA used to determine the cell viability and apoptosis rate in given carcinoma cell lines. The ability of different compounds to induce mortality was assessed. The assessment of cells mortality rate was based on the activity of caspase-cleavage product accumulation and cytokeratin (ccCK18) in cells used in a culture medium. All HCT116 cells shows cytotoxic activity that contains saponins obtained from A. racemosus but rest of the sugar aglycone present in sarsasapogenin form did not show such activity. In all the tested Shatavari compounds; Shatavarin IV shows the maximum potencial to reduce cell viability and mortality rate.

Anti-oxidant activity:

The plant extract of A. racemosus exhibits enhanced antioxidant effects on mitochondria membrane of rat liver induced by generating free radicals induced by gamma radiation under in vitro condition. It enhances the GPX and GSH enzyme activity and inhibits the oxidation of protein and lipid peroxidation.

AMALAKI:

- **Latin Name:***Emblicaofficinale*
- **Family:***Euphorbiacae*
- **Guna***: Guru,Ruksha.*
- ***Rasa:*** *lavanarahitPancharas*
- ***Veerya:*** *sheeta*
- ***Vipaak:*** *Madhur*
- **Useful part:** *Fruit*
- **Dose:** *2 to 6gms*

CHEMICAL CONSTITUENTS:

Tannins,Gallic acid, Alkaloid, Glycoside, Saponins, Flavonoids,Polysaccharides,Steroid

Properties: Amalki is used as vrishya and rasayana drug. Its amla rasa is used to pacify vatadosha, madhur rasa and sheetaveerya pacify pitta dosha and kashay rasa pacify the kaphadosha. Hence it is the best drug to bring equilibrium in Tridosha.

Anticancer activity

As a result of antioxidant activities Phyllanthus emblica were selected for further investigation on anti-cancer activities. The effect of ethanolic extracts on HT-29 cancer cell lines were evaluated by MTT assay. Curves of percentage viability of treated cells were plotted against extracts concentration. The present study demonstrated the anticancer profile of Phyllanthusemblica effective against HT-29 cells It can be found that the incubation of cancer cells with Phyllanthusemblica, reduced the viability of these cells and the dead cells were significantly increased with high extract concentration. The ethanolic extract of Phyllanthusemblica exhibited high cytotoxicity (88%) (Syam et al ., 2011) . Phyllanthusemblica showed the highest activity and this was observed in the earlier work with the HepG2 cells (Syam et al ., 2011). Even at very low concentrationPhyllanthusemblica showed (20%) dead cells. In conclusion Phyllanthus emblica possessed strong antioxidant activity and anticancer activity.

Immunomodulatory: Reduction of Ascites and solid tumors induced by Dalton's lymphoma ascites cells in mice; Increased lifespan of mice

Enhancing Natural Killer (NK) cell activity:

Chemoprevention by amla extract on 7, 12-dimethylbenz(a)anthracene (DMBA) induced skin tumorigenesis in swiss albino mice assessed by decreased frequency of micronuclei. Chemoprevention due to antioxidant activity and through immuno modulatory effect on hepatic activation and detoxifying enzymesDPPH, ABTS, Superoxide scavenging; Iron chelation; anti-proliferative activity against MCF-7 tumor cells; MTT assay Mallotusinin and mucic acid 1,4-lactone 3-Ogallate reported first time to have antioxidant and anti-proliferative activities.

Prevents side effects of Cyclophosphamide treatment when used in combination with control therapy drug.

Hemato and immuno protectiveeffectshows prevention of mutagenecity,Prevents chromium induced oxidative damage (decreased GSH, GPx activity in macrophages) and immunosuppression (by restoring phagocytosis and gamma-interferon production by macrophages)

CONCLUSION:

Number of studies have proved the *Ayurvedic* herbs enhance the quality of life during cancer chemotherapy/radiation. Research on Ayurvedic drugs would help to identify safe and effective anticancer drugs. Many proven herbs should be included in clinical trials to increase the lifespan and quality of life of cancer patients. The drugs Summarized in this review have anti-cancer, Immunomodulator and anti-inflammatory properties, which are no doubt are useful in post chemo-radiotherapy. The clinical efficacy and extent of toxicity of numerous anticancer agents in Allopathic system of medicine are well known. On the basis of the pharmacological properties of the above herbal drugs a combined formulation can be tried to minimize common ill effects of cancer conventional therapy and cancer included problems,which can be helpful not only to improve the quality life of the patients but sometimes can play as an anticancerous herbal treatment modalities.

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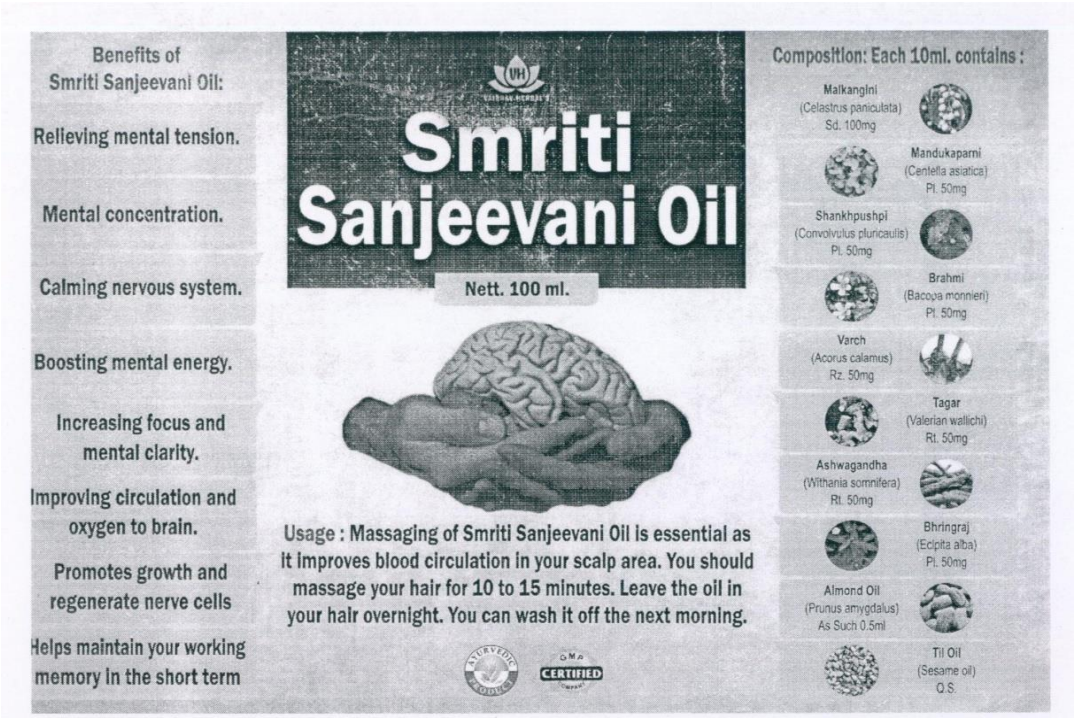
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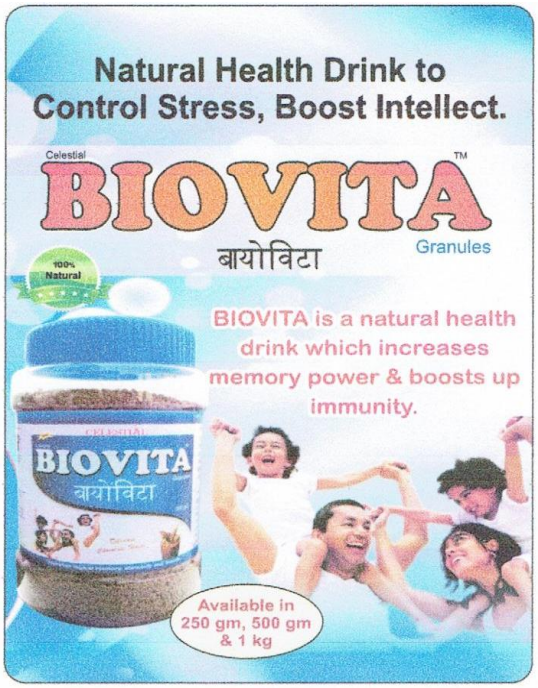

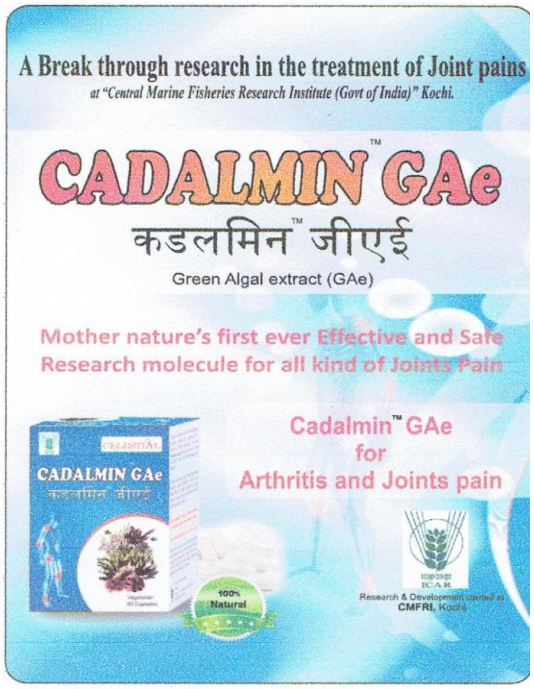

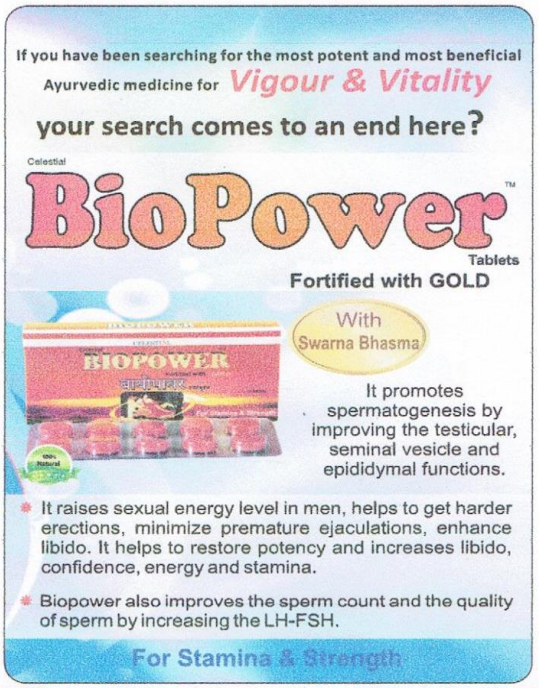

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