Āryavaidyan

लाभानां श्रेय आरोग्यम्

Of all the gifts, the most precious is health



Vol. XXIX., No.1 & 2 August 2015 - January 2016



A QUARTERLY JOURNAL OF THE ARYA VAIDYA SALA - KOTTAKKAL

āryavaidyan

A Quarterly Journal of the Arya Vaidya Sala, Kottakkal

Vol. XXIX., No.1 & 2

Regn. No. 55127/87

August 2015 - January 2016

Aryavaidyan is intended to encourage scientific writing and intellectual interactions among scholars, academicians, practitioners and students of ayurveda and allied subjects like Siddha, Unani, modern medicine, etc.

EDITORIAL BOARD

Editor Dr. K.G. Paulose

Hon. Consulting Editor Dr. K. Madhavankutty

Members

Dr. A. P. Haridas

Retd. Principal, VPSV Ayurveda College, Kottakkal

Dr. Arsu

Professor, Department of Hindi,

University of Calicut.

Shri K. G. Warrier

Teacher (Retd.)

Shri C. A. Varier

Trustee, AVS.

Dr. Indira Balachandran

Project Director, CMPR, AVS.

Dr. T. S. Murali

Chief (Tech. Services), AVS.

Dr. K. Muralidharan

Superintendent, (AH&RC), AVS.

Dr. C. Ramankutty

Chief Medical Officer

(Publications), AVS.

Advisory Board

Prof. M. K. Prasad

Foremerly Pro-vice Chancellor,

Calicut University

Dr. C. K. Ramachandran,

Prof. of Medicine (Retd.),

Medical College, Calicut

Dr. V. N. Pandey

A/50/NDSE-1, New Delhi

Dr. S. K. Misra,

Delhi

Mr. Giorgio Fillippo Barabino

Genova

Dr. M. S. Valiathan

National Research Professor, Manipal University, Manipal.

Prof. N. R. Krishnaswamy

Prof. of Chemistry (Retd.),

Puttaparti, Bangalore.

Dr. G. Santhakumari

Thiruvananthapuram

CONTENTS

| From the Pages of Vāgbhaṭa | Ramankutty C. | 3 |
|--|---|----|
| Role of vamanakarma in ārttavakṣaya w.s.r to Polycystic Ovarian Syndrome - A case study | Bhingardive Kamini, B. Sarvade Dattatray and Santoshkumar Bhatted | |
| Importance of Agni in treatment (Part II) | Arjun Chand C.P., Chandni R., Arya Krishnan, Surya Santhosh and Surya Sukumaran | |
| Vīrasimhāvalokanam - A review | Subhasree G.H. | 19 |
| Development of random amplified polymorphic DNA markers for authentication of <i>Opuntia elatior</i> Mill. (nāgaphaṇi or hathalo-thore) | Hemil Patel, Shashikant Prajapati, Rabinarayan Acharya and Harisha C.R. | |
| Performance of long pepper as a floor crop and crop compatibility studies with Noni in coconut based multi-storeyed cropping pattern of coastal ecosystems | P. Farsanashamin and A.S. Anilkumar | |
| Management of genetic diseases - A ray of hope in āyurveda | Nagaraj S., Prasanna N., Mogasale, Rajalaxmi and Nidhin V. | |
| Para-surgical approach to transphincteric and intrersphincteric fistula-in-ano - A case report | Neelima Sherly John, Sreedevi S. and R.N. Tripathy, | |
| Effect of vātaharapatranāḍīsveda in acute para-spinal muscle spasm as an emergency management | Devi R. Nair and Manoj Kumar A. K. | |
| Role of udvarttana on psychophysical parameters in healthy volunteers - A randomized controlled trial | Vivek Kumar Mishra, Dilipkumar K.V. and Neha Mishra | 46 |
| Practical aspects of uttaravasti in females | Sandhya C.V. | 52 |
| Dantotpatti (tooth eruption) - A critical review | Chethan Kumar V.K. and Harshitha M.S. | |
| Pañcakarma therapy: an absolute healthcare and wellness programme of āyurveda | P.K. Asok and T. Sreekumar | |
| Effect of padmaka agada in Herpes zoster | Sandhya C.V. Chethan Kumar V.K. and Harshitha M.S. P.K. Asok and T. Sreekumar Dona Abraham Mattam, S.R. Manju, and C.G. Sreevidya Shahina Mole S. and | |
| Rajonivṛtti (menopause) - The transition period of mind and body | Shahina Mole S. and A. Nalinakshan | 71 |
| A clinical importance of yukti in āyurveda | Priyanka, Mamta Kumari, 7 Meena K.L. and A.K. Panja | |
| Efficacy of Vaitaraṇavasti and Vṛṣādi vasti in gṛdhrasi w.s.r to sciatica - A comparative clinical study | Sanjay M. | 83 |
| Concept and application of satvasāraparīkṣa - A neurophysiological review | Aswathy V. and Abhilash M. | 89 |

FROM THE PAGES OF VĀGBHAṬA - LXXXIX

Ramankutty C.*

Abstract: The seventh chapter of Nidānasthānam viz. Arśonidānam is explained here. The aetiology, symptamatology, prognosis, etc. of arśa (haemorriods) are detailed in this chapter.

अथातोऽर्शसां निदानं व्याख्यास्यामः। इति ह स्माहरात्रेयादयो महर्षयः।

(Athātah arśasam nidānam

vyākhyāsyāmaḥ I

Iti ha smāhurātreyādayo maharşayahı)

Let us discuss the chapter regarding the diagnosis of arśas (haemorrhoid). Thus spoke the sages Ātreya, etc.

We concluded 'Madātyayanidāna' on an evident note about the enemies such as mada, māna, etc. One of the stark features of the enemies are that they ceaselessly torment you. 'Haemorrhoids' being one such enemy, it is natural to discuss it soon after madātyaya.

अरिवत्प्राणिनो मांसकीलका विशसन्ति यत्। अर्शांसि तस्मादुच्यन्ते गुदमार्गनिरोधतः।।१।। दोषास्त्वङ्मांसमेदांसि सन्दूष्य विविधाकृतीन्। मांसाङ्कुरानपानादौ कुर्वन्त्यर्शांसि तान् जगुः।।२।।

(Arivatprānino māmsa-

kilakā viśasanti yat l arśāmsi tasmāducyante

gudamārganirodhataḥ II 1 II

Doṣāstvanmāmsamedāmsi sandūṣya vividhākṛtin l māmsānkurānapānādau

kurvantyarśāmsi tān jaguḥ | 1 2 | 1)

Fleshy masses acting as numerous pricking nails causing misery gives haemorrhoids the name 'arśas'. In Sanskrit 'ari' meaning enemy belongs to 'aru' dhātu. Śasana means 'being violent'. The combination of both resulted in the term "arśas".

The 'tridoṣa' malign the skin, the flesh and the fat respectively causing the occurrence of fleshy masses in the rectum called arśas. These may be also found in the nose and ears referred as "nāsārśas" and "karṇārśas" respectively.

सहजन्मोत्तरोत्थानभेददृद्वेधा समासतः। शुष्कस्राविविभेदाच्च...... (Sahajanmottarotthanabhedaddvedhā samāsataḥ।

Śuṣkasrāvivibhedācca.....)

According to their differences i.e., "sahajanma" (congenital), "uttarotthāna" (arising later); "śuṣka" (dry), "srāvī" (oozing), arśas can be broadly classified into two.

^{*} Chief Medical Officer, Publication Department, Arya Vaidya Sala, Kottakkal.

(Vyāno gṛhitvā śļeṣmāṇam karotyarśastvaco bahiḥ)

kilopamam sthirakharam

carmakilam tu tam viduh II 57 II)

The vyānavāyu engulfs the kapha to form haemorrhoid on the skin. This fixed, hard and nail like swelling is called "carmakīla".

वातेन तोदः पारुष्यं, पित्तादिसतरक्तता। श्ळेष्मणा स्निग्धता तस्य ग्रिथतत्वं सवर्णता।।५८।।

(Vātena todaḥ pāruṣyam, pittādasitaraktatā | śḷeṣmaṇā snigdhatā tasya

grathitatvam savarnatā II 58 II)

When vāta is dominant, the swelling may be painful and coarse; when pitta is dominant, the swelling would be reddish-black; and with kapha, it would be oily on the surface, firm and skin-like in colour.

अर्शसां प्रशमे यत्नमाशु कुर्वीत बुद्धिमान्।

तान्याशु हि गुदं बद्ध्वाकुर्युर्बद्धगुदोदरम्।।५९।।

(Arśasām praśame yatnamāśu kurvīta buddhimān I

tānyāśu hi gudam baddhvā-

kuryurbaddhagudodaram II 59 II)

A good physician should treat haemorrhoids immediately because it blocks the rectum and causes a disease known as "baddhagudodaram/baddhodaram".

इति श्रीवैद्यपितिसंहगुप्तसूनुश्रीमद्वाग्भटविरचिताया-मष्टाङ्गहृदयसंहितायां तृतीये निदानस्थानेऽर्शसां निदानं नाम सप्तमोऽध्यायः।।६।।

(Iti śrī vaidyapatisimhaguptas ūnuśrī madvābhaţaviracitā yā maṣṭā ṅgahṛdayasamhitā yā yā m tritī ye nidā nasthāne 5 rśasām nidā nam nā ma saptamo 5 dhyā yaḥ 11 6 11)

Thus ends the 7th chapter named Arśasām nidānam of Aṣṭāṅgahṛdayam composed by Śrīmad Vāgbhaṭa, the son of Vaidyapati Simhagupta.

ROLE OF VAMANAKARMA IN ĀRTTAVAKṢAYA W.S.R TO POLYCYSTIC OVARIAN SYNDROME - A CASE STUDY

Bhingardive Kamini B.,* Sarvade Dattatray** and Santoshkumar Bhatted*

Abstract: Polycystic ovarian syndrome (PCOS) is the most common metabolic as well as endocrinal disorder of reproductive age that affects on 5-10% of women. PCOS patient are more prone to develop D.M and premature cardiovascular diseases. In āyurveda, PCOS can be correlated with ārttavakṣaya. A 28 year old, married female patient with chief complaints of irregular scanty menses of prolonged duration associated with central obesity, hair fall, anorexia etc., diagnosed as a case of PCOS, was treated by vamanakarma (therapeutic emesis) followed by śamana therapy (oral palliative medicine). The relief found to be significant both in subjective and objective parameters.

Introduction

Infertility, though not a physically debilitating disease, severely affects the couple's psychological harmony, sexual life and social function. Polycystic ovarian syndrome (PCOS) is the most common cause of anovulatory infertility, being found in <75% of cases.¹ PCOS is the commonest endocrine disease in women of reproductive age. It affects 5-10% of women of reproductive age.².³ The available allopathic treatment in PCOS (ārttavakṣaya) includes hormonal pills and other drugs which have serious adverse effects, so world is looking towards āyurveda for safe and effective treatment.

There is no direct reference to PCOS in

āyurvedic classics but the symptoms can be correlated with ārttavakṣaya. Dalhaṇa, commentator of Suśrutasamhita describes vamanacikitsa for ārttavakṣaya. So, vamanakarma was administered followed by śāmanauṣadhi (oral palliative medicine) to correct the underlined residual pathology.

Material and methods

Case report

A 28 years old married female patient approached to the OPD of Pañcakarma dept. at National Institute of Āyurveda Jaipur, with the chief complaint of irregular scanty menses of prolonged duration associated with central obesity, hair fall, anorexia etc. The patient was very anxious for conception. She, having the

^{*}Dept. of Panchakarma, National Institute of Ayurveda, Amar Road, Jaipur, Rajasthan

^{**} Dept. of Dravyaguna, NIA, Jaipur.

śodhaka and ārttavajanaka in nature. Kāñcanāra guggulu has lekhana property and is granthīnāśaka in nature. So, overall combined śamana therapy corrects the basic residual underlined pathology effectively.

Conclusion

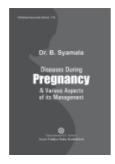
Hence it can be concluded that polycystic ovarian syndrome can be managed effectively by holistic approach of āyurveda in general and pañcakarma in particular.

References:

- Homburg, R., "The management of infertility associated with PCOS", Reprod Biol Endocrinol., 1:109, 2003.
- 2. Shannon, M. and Wang, Y., "Polycystic ovary syndrome: a common but often unrecognized condition", *J. Midwifery*

- Womens Health, 57(3), pp 221-30, 2012.
- 3. Goudas, V.T. and Dumesic, D.A., "Polycystic ovary syndrome", *Endocrinol Metab Clin North Am.*, 26: pp 893-912, 1997.
- Acharya, J.T. and Acharya, N.R,. Susrutsamhita (Nibandhasangraha). Reprint, P 70, Chaukhamba Krishnadas Academy, Varanasi, 2008.
- Acharya, G.S., Panchakarma Illustrated, P 315, Reprint, Chaukhamba Surbharti Prakashan, 2009-2013.
- Acharya J.T., and Acharya, N.R., Susrutsamhita (Nibandhasangraha), P 60, Reprint, Chaukhamba Krishnadas Academy, Varanasi, 2008.

Kottakkal Ayurveda Series: 135



DISEASES DURING PREGNANCY AND VARIOUS ASPECTS OF ITS MANAGEMENT

Essay adjudged the best in All India Ayurveda Essay Competition 1990

Dr. B. Syamala

Price: ₹ 160/-

Although pregnancy is not a disease but a normal function of the body, a pregnant woman is exposed to various risks that are peculiar to pregnancy. The diseases occurring during pregnancy affecting

the mother can be divided into two distinct categories: i) garbhinivyadhis (disorders due to pregnancy) and ii) garbha-sahitavyadhis (disorders associated with pregnancy). This work is a compilation of the subject garbhinivikaras (diseases during pregnancy) and their chikitsa (treatment) including the medications which have found effective in practical use either by day to day practice or by research work.

IMPORTANCE OF AGNI IN TREATMENT

(Part II)

Arjun Chand C.P.¹, Chandni R.², Arya Krishnan¹, Surya Santhosh³ and Surya Sukumaran¹

Abstract: Continued from the previous issue. Different types of agni and their importance in treatment are discussed in this concluding part.

Introduction

Treatment of agni is treatment itself; i.e. we are treating the agni inside the body while treating a disease.

कायस्य अन्तरग्ने चिकित्सा कायचिकित्सा

Agni is broadly classified into two: i) nitya (paramānurūpa - ultimate source) and ii) anitya (kāryarūpa - useful forms). Anitya is again classified into three on the basis of its āśraya (base): i) śarīra (body or source), ii) indriya (specific to sense organs) and iii) visaya (where agni is perceived). Visaya is grouped in four headings: i) bhaumam (that which perceived from fuel burning), ii) divyam (which cannot be perceived directly, but can be perceived through effect), iii) audaryam (digestive and metabolic fire) and iv) ākarajam (that which responsible for the luster of metals). Importance of each of the above mentioned agni with special reference to treatment are discussed here.

Agni - śarīra and indriya

The ultimate and largest source of agni is sun.

This is also used as a part of therapy, like sun bath, one of the techniques in naturopathy. In āyurveda, direct exposure to sun is considered as a therapeutic measure (one among daśavidhalanghanam). In treatment of skin diseases, sunlight is directly used; for example, exposure to sun soon after medicinal application is mentioned in svitracikitsa. In some of the medicinal preparations, direct sunlight is utilised as a source of agni (e.g., Vitpalatailam). The presence and absence of sun determines the treatment in many aspects. For example, tīkṣṇāñjana is contraindicated in day time; lepa is contraindicated in night time. Pañcakarma therapies are also specified for each dosa on the basis of sun (e.g., nasya for vāta in evening).

Indriyāgni is the agni situated in indriya especially in eye and skin. The physiology of vision is maintained by agni inside the eyes (ālocakāgni). Direct or partial exposure of eyes to sun is a method practiced in eye treatments. The therapies and medicines applied through the skin are absorbed by the

- 1. Chandraprastham Ayurvedalayam, Muttacaud PO, Venganoor 695 523.
- 2. Sree Dhanwantari Ayurvedashramam, Ponkunnam; 3. SDMCAH, Hassan.

Agni in treatment - special consideration

All diseases are having two states sāma and nirāma. Pacana and agnidīpana are to be done in samāvastha to make it nirāma. The systematic approach to sāmacikitsa is mentioned in Jvaracikitsa. Langhana is the first line of treatment, next is pācana and if āma is in its highest in āmāśaya, śodhana is the treatment. Once āmapācana is done, agni dīpana is the next line of approach. Ghrta (ghee) is the best choice in this condition. Different types of medicated ghee are used in different dhātu level. In āmavāta, both external (rūkṣasveda) and internal (laṅghana, medicines) use of agni is done for āmapācana. In atisāra, agnidīpana is the foremost aim, but in sāmāvastha anulomana agnidīpana (e.g. harītaki) and in nirāmāvastha grāhi agnidīpana (e.g. śunthi) are to be administered. Agni dīpana drugs can cause increase of pitta, but some drugs like takra (buttermilk) are exemptions.

Agni in karma (actions)

The following are some of the karmas in which agni possesses a major role.

- Dīpana Increases agni, but cannot digest the āma (partially digested)
- Pācana Do digestion, but cannot increase agni
- Anulomana Does digestion and elimination
- Grāhi Both digestion and increase of agni, but making dry
- Vyavāyi, vikāşi, sūkṣma, chedi, madakari, etc. are agni dominated karmas. Svedana and rūkṣṇa also can increase agni.

Conclusion

Agnimāndya is said to be the cause for all diseases, hence preserving agni is the first line of treatment as well as prevention. Bhūtāgni, dhātvāgni and jaṭharāgni are having their own specific roles in treatment. Among them, jaṭharāgni plays an important role in digestion of ingested medicines. Dhātvāgni have role in metabiloising the digested medicines and make them to reach in specific sites. Understanding of different levels of agni is very important in clinical practice for the proper administration of medicines and therapies.

(concluded)

Āryavaidyan Vol. XXIX., No. 1 & 2, Aug. 2015 - Jan. 2016, Pages 19 - 21

Book review

VĪRASIMHĀVALOKANAM - A REVIEW

Subhasree G.H.*

Abstract: Vīrasimhāvalokanam is considered as an authentic text in the field of astrotherapy. It is a very unique treatise that describes the complete way of management of diseases, adopting knowledge from Astrology and Dharmaśāstra. The author classifies the diseases according to their origin as doṣaprakopaja, karmaprakopaja and karmadoṣaprakopajas and advises the management depending up on this division. And the text deals with both dravyacikitsa and adravyacikitsa for each disease very elaborately. It is a useful book for physicians to frame a complete and successful treatment modality.

Jyotiśāstra (Astrology) is a very elegant and a complex science as Health science; and both are deeply rooted and developed in our land since time immemorial. Both jyotiśāstra and āyurveda have a great cultural heritage in India; and both sciences have a profound influence on each other and on maintenance of physical and mental health of the people.

We have an integrated or holistic approach on disease management taking care of all aspect of a person's life which emphasizes that one should be treated from all sides as to attain a physical, mental and spiritual well being. One of the main aspects of cikitsa is nidānaparivarjana. So it is necessary to trace the particular cause of the derangement of health and find a remedy for that. If there is only physical cause as imbalance of doṣas, it can be managed by bheṣajacikitsa; and that comes under 'yuktivyapāśrayacikitsa'. But if any other causes like planetary influences are also there, then it has

to be managed by some ritualistic remedies along with medicines; and that comes under 'daivavyapāśrayacikitsa'. So, according to our culture and heritage it is always should go with hand in hand; hence some different forms of 'Astro medicine' are still in practice.

There are so many books available on both astrology and medical science; more so, many researches are going on both sciences. But there are not much books seen on a holistic approach of healthcare pointing an interdisciplinary research. Here is the relevance of the treatise Vīrasimhāvalokanam. It is an authentic classical text book on the subject; and has been followed by āyurvedic practitioners since long back.

The treatise Vīrasimhāvalokanam written in Sanskrit was the result of the laborious effort of the renowned King Vīrasimha, scion of the Thomara dynasty of Rajputs in Gwalior, son of Devavarmarāja, grandson of Kamalasimha. The

^{*}Associate Professor, KMCT Ayurveda Medical College, Mukkam, Kozhikode

upadamśam, śūkadoṣam, tvagrogam, śītapittam, udaram, kotham, amlapittam, visarpam, visphoṭam, romāntika, kṣudrarogam, mukharogam, karṇarogam, nāsārogam, akṣirogam, śirorogam, strīrogam, bālarogam and visam.

Karmavipākasidhānta is explained based on Dharmaśāstra; pāpakarmas are considered as the cause of diseases. Some examples in this context are described as follows:

Spoiling lakes and extinguishing fire are told to be main reasons leading to atisaram. Doctors violating ethics and not maintaining good manufacturing practice will have to suffer from raktapitta. Ingratitude leads to kāsa and śvāsa. Intake of food without keeping the suggested order in daily routine results in hikka. Arocaka is told to be the result of extravagance. Jalodaram is considered as the result of judges doing injustice to profession. Svayadhu is developed by the effect damaging the mountains, rivers, pathways, shadows, etc. and by hindering one's food intake. Guruninda is told to be the reason for so many diseases including vātarogam and śirorogam. Rape is a cause mentioned in disease like antarayamam and bahirāyāmam. And adultery is said to be the cause of prameha varieties. Jathara, gulma, unmāda, etc. are due to paradravyāpaharaņam, gurubhāryāgamanam and vipravadham. So many karmas are told to be the cause to diseases in the course of time; those include spoiling the nature, sadācāravirudham, upacāravirudham, etc. Diseases caused by such deeds are said to be incurable by mere treatment. Here dānādi karmas should be done. So, one should do both auşadhi and dānādi karmas according to the disease. Doşakşaya and karmaksaya will lead to the complete rogaśānti. And there are some diseases like mūrccha, svarabhedam and āmavātam, where karmavipāka is not explained.

Some other noticeable points include rasāyanam definition, which is mentioned as "Yajjarāvyādhividdhvamsibheṣajam tadrasāyanam;" various tvagrogas mentioned including contagious and epidemic disorders like masūrika, romāntika, etc. Garbharakṣāvidhi is also detailed. Stanyadoṣam, mūḍhagarbham, vandhyatvam, etc. are described as different adhikāras. While explaining sarpaviṣam, precaution from sarpaviṣam is told. Daily intake of apamārgamūlam with taṇḍulodakam and masūram with nimbapatram are told to protect from sarpaviṣam.

Conclusion

Though Vīrasimhan's treatise is titled as astrological diagnosis and treatment, it is also mainly meant for daily use by the vaidyas by providing information on planetary combinations indicative of specific diseases and the causes, symptoms and cures for such diseases. The author has taken the utmost care to establish that proper diagnosis by a good vaidya and treatment with medicines are a must which should positively be clubbed with propitiating karmas as suggested by a good astrologer. It is a legendary work in the field of medical astrology. And the commentator too did maximum effort to give justice to base text while giving meaning and commentary of each chapter. As he mentioned in preface, some portions may not find practical in this era; still commentary has given to the whole book without leaving any portion. However, he agrees that some portions have left from treatment part as they are not useful practically.

DEVELOPMENT OF RANDOM AMPLIFIED POLYMORPHIC DNA MARKERS FOR AUTHENTICATION OF *OPUNTIA ELATIOR* MILL. (NĀGAPHAŅI OR HATHALO-THORE)

Hemil Patel,¹ Shashikant Prajapati,¹ Rabinarayan Acharya,¹ and Harisha C.R.²

Abstract: *Opuntia elatior* Mill., a member of the Cactaceae family known as nāgaphaṇi or hathlo-thore, is a sub-arborescent or shrubby, 3 meter high or more, used as a folklore medicinal plant in various disease conditions like anaemia, asthma, gonorrhoea and general debility. Other species of *Opuntia* like *Opuntia ficus-indica* L., *Opuntia dillenii* (Ker Gawl.) Haw. *Opuntia vulgaris* Mill. are available with similar look. Molecular characterization of *Opuntia elatior* by Random Amplified Polymorphic DNA (RAPD) markers was studied following standard parameters. Unique bands obtained in Polymerase Chain Reaction (PCR) amplification are clearly discriminated having many bright and light bands, as a measure for authentication and standardization of the plant.

Introduction

Opuntia elatior Mill., is a folklore plant commonly known as nāgaphaṇi or hathalothore. It is a sub-arborescent or shrubby, 3 meter high or more; a spiny shrub with flattened, articulate fleshy stems. The presence of 2-5 spines in each areole and change of flower colour at various stages i.e. from yellow to pink and finally to bright-red that differentiates this variety from other species of Opuntia in morphological character. It is used as a remedy in different conditions like anaemia, asthma, etc. by tribal of Gujarat state. It has reported that the baked fruits of O. elatior is are administered internally once in a day for a week in asthma; pulp of one ripened

fruit is used in burning sensation in the stomach;⁵ the fruits heated and powdered (about 5 g powder) is consumed at morning for 10-15 days in rheumatism;⁶ and the juice of 7-8 fruits mixed with 50g jaggery is consumed by the tribal ladies for 2-3 days to develop complete sterility.⁷ It is observed that different species of *Opuntia* have highlighted individually for their ethno-medicinal claims like antibacterial, anti-diarrheal, anti-inflammatory, analgesic, anti-spermatogenic, anti-microbial and anti-diabetic properties.⁸

Documentation and standardisation of such biological resources is important for their identification, authentication and utilization. Identification of biological resources through

^{1.} Deptt. of Dravyaguna, IPGT & RA, Gujarat Ayurved University, Jamnagar - 361 008,

^{2.} Pharmacognocy Laboratory, IPGT&RA, Gujarat Ayurved University, Jamnagar

observed primer 7, 13, 14, and 15. Prominent bands at 700bp were observed primer 3, 5, and 10. The PrimersOPA-01, OPB-03 & OPA-09 almost similar bands were found at 38.2, 38.6, and 38.7. OPD-03, OPB-06, OPA-02 and OPD-08 respectively showed the 41.4, 40.2, 42.4 and 40.6 maximum similar bands. Primers OPD-06, OPB-10, OPB-08, OPB-07 and OPA-07 similar bands were found at 33.4, 33.6, 34.3, 35.3 and 34.5. These unique bands obtained in Polymerase Chain Reaction (PCR) amplification are clearly discriminated having many bright and light bands indicating the genuinity of the plant. These are environmentally stable and specific DNA markers that can be used for identification of the plant Opuntia elatior Mill.

Conclusion

The plant *Opuntia elatior* Mill. provides prominent bands at 300bp with primer 9, 11, 12, and 14. Prominent bands at 1000bp were observed with primer 7, 13, 14, and 15 and at 700bp with primer 3, 5; and 10 molecular characterisation can be considered as markers to establish the botanical standards for identification and standardisation.

References:

- Kirtikar, K. R. and Basu, B.D., *Indian Medicinal Plant*, Vol. I., P 1174, 2nd Edn., International Book Distributer, Deharadun, 1975.
- The wealth of India, Vol. VII., P 100, National institute of science communication and information resources, Published by council of scientific and industrial research, New Delhi, 2007.

- Prajapati, S.M., Harisha, C.R. and Acharya, R.N., "Pharmacognostic evaluation of stem of *Opuntia elatior* Mill. (Nagaphani)", *European Journal of Biomedical* and *Pharmaceutical Sciences* 2(2): pp 351-357, 2015.
- Patil, G.G., Mali, P.Y. and Bhadane, V.V., "Folk remedies used against respiratory disorders in Jalgoan district, Maharashtra", Natural product Radiance, 7(4): pp 354-358, 2008.
- 5. Kumar, S., Parveen, F., Goyal, S. and Chauhan, A., "Indigenous herbal coolants for combating heat stress in the hot Indian arid zone", *Indian journal of traditional knowledge*, 7(4): pp 679-682, 2008.
- 6. Patil, D.A. and Rao Ahir, Y.A., "Ethnomedicinal knowledge of plants used by local people in Buldhana district of Maharashtra, India", *Journal of Ecobiotechnology*, 3(3): pp 11-17, 2011.
- Jain, A., Katewa, S.S., Galav, P.K. and Nag, A., "Unrecorded Ethnomedicinal uses of Biodiversity from Tadgarh Raoli Wildlife Sanctuary, Rajasthan, India", *Acta Botanica Yunnanica*, 29(3): pp 337-344, 2007.
- 8. Ramyashree, M., "Reproductive toxicity of Opuntia fruit extract in male Swiss Albino Mice", *International Journal of Advanced Biological Research*, 3(3): pp 464-469, 2013.
- Borkar, S.D., Naik, R., Harisha, C.R. and Acharya, R.N., "Development of Random Amplified Polymorphic DNA markers for authentification of *Rivea hypocrateri*-

- formis (Desr.) Choisy", Global Journal of Ressearch Medicinal Plants & Indignations Medicine; 2(5): pp 348–356, 2013.
- 10. Doyle, J.J. and Doyle, J.L., "Isolation of plant DNA from fresh tissue", *Focus*, 12: pp 13-15, 1990.
- 12. Doyle, J.J. and Doyle, J.L., "A rapid DNA isolation procedure from small quantities of fresh leaf tissues", *Phytochem Bull.*, 19: pp 11-15, 1987.
- 13. Doyle, J.J. and Doyle, J.L., "Isolation of

- plant DNA from fresh tissue", *Focus*, 12: pp 13-15, 1990.
- Harisha, C.R., Acharya, R.N., Chauhan, M.G., "Development of Random Amplified Polymorphic DNA markers for authentication of Cissus repanda Vahl", An international quarterly journal of research in Ayurveda, Apr-Jun; 33(2): pp 279-283, 2012.
- Chavan, P., Joshi, K. and Patawardhan, B.,
 "DNA Micoarrays in Herbal Drug Research", Evid. Based Complement and Alternat Med., 3: pp 447-57, 2006.

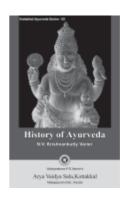
Kottakkal Ayurveda Series: 56

History of Ayurveda

An extensive study on the different stages of development of Indian Healthcare System from its early beginning to the present day.

Aryavaidyan N.V. Krishnankutty Varier

Price: ₹ 200/-



"What distinguishes this work from the works of other Indian scholars on medical history is the effort to pursue a scientific course with a mind freed from all superstition. His mature scholarship in social history as well as āyurveda seems to have enabled Dr. Varier to take this bold stand."

- From the Introduction by Prof. M.G.S. Narayanan

PERFORMANCE OF LONG PEPPER AS A FLOOR CROP AND CROP COMPATIBILITY STUDIES WITH NONI IN COCONUT BASED MULTI-STOREYED CROPPING PATTERN OF COASTAL ECOSYSTEMS

P. Farsanashamin and A.S. Anilkumar*

Abstract: A field experiment was conducted at College of Agriculture, Padannakkad, Kasaragod, Kerala during 2014-2015 to develop appropriate cost effective practices for enhancing productivity of long pepper (*Piper longum*) and intercropped noni (*Morinda citrifolia*) in coconut based multi-storeyed cropping system involving a combination of coconut, noni, banana and long pepper in coastal sandy soil. The treatments consisted of eight combinations of four levels of NPK for coconut and two levels of NPK for the component crops in addition to five sole cropping systems. The results revealed that application of 100 per cent NPK for long pepper, noni and other component crops combined with 2/3rd of the recommended dose NPK for coconut recorded the highest fruit number, fruit weight of spikes plant-1 and total dry spike yield. Treatment supplied with 2/3rd of the recommended dose NPK for coconut and 75 per cent of the recommended fertilizer for noni recorded highest quantity of vitamin C.

Introduction

Piper longum

Long pepper, commonly known as tippali, is an important medicinal plant native to tropical rain forests of Indo-Malayan region and widely cultivated in tropical countries of South East Asia. Medicinal properties of long pepper are wide and most of the ayurvedic preparations contain long pepper extracts (Viswanathan, 1995). Dried spikes contain pungent alkaloid called piperine. The piperine content of long pepper is slightly higher than black pepper. Fruits also contain aminoacids viz. L. tyrosine, L. cysteine and L. aspartic acid and one percentage of volatile oil, which exhibits certain anti bacterial properties. Roots of the long pepper plant contain constituents like piperine, piper longmine, piper longuminine, sesamin, and 3, 4, 5-tri methoxy cinnamate which can be used for correcting various respiratory disorders, chronic bronchitis, cough and cold. Spike has a capacity to prevent fever, jaundice, leprosy, bronchial asthma and malaria. Pippalyādi arista, pañcakola, trikatu are some of the preparations made from dried long pepper spikes. The availability of the crop is limited in domestic and international markets and the demand itself makes it as a commercially important crop. Large quantities of dry spikes are required to meet the demands of ayurvedic industries in Kerala but the production is mainly concentrated in some isolated pockets only. Crop intensification is the only solution to enhance the production and productivity of long pepper. There are prospects to introduce long pepper as a floor

^{*}College of Agriculture, Kerala Agricultural University, Padannakad, Kasaragod - 671 314.

Conclusion

The present study has indicated that application of 2/3rd of the recommended dose of NPK for coconut combined with the 100% of the recommended dose of NPK each for the component crops viz. noni, banana and long pepper was found worthwhile for popularization in relation to enhanced

TABLE 3
Yield and vitamin C content of noni fruit

| | Yield (Fruit) | | Vitamin C |
|--|---------------|--|--------------------------|
| Treatments | Number | Kg plant ⁻¹ year ⁻¹ | (mg 100g ⁻¹) |
| T ₁ (100% C* + 100% IC**) | 430.71 | 15.09 | 33.26 |
| T ₂ (100% C + 75% IC) | 469.99 | 16.45 | 32.80 |
| T ₃ (2/3rd C + 100% IC) | 525.71 | 18.40 | 33.34 |
| T ₄ (2/3 rd C + 75% IC) | 429.28 | 15.05 | 33.81 |
| T ₅ (1/3 rd C + 100% IC) | 477.85 | 16.75 | 32.83 |
| T ₆ (1I3 rd C + 75% IC) | 475.71 | 16.65 | 32.96 |
| T ₇ (BM) (C) + 100% IC) | 464.30 | 16.31 | 32.88 |
| T ₈ (BM (C) + 75% IC) | 519.55 | 18.22 | 33.44 |
| T ₁₃ (CN) | 516.42 | 18.11 | 33.74 |
| SEm (±) | 69.0 | 2.41 | 0.44 |
| CD (0.05) | NS | NS | NS |

*C - Coconut, **IC - Intercrop; BM - Basin Manage-ment; CN - Control (sole cropping of noni)

productivity of long pepper and intercropped noni as a floor crops of the coconut based multi-storied cropping system in coastal sandy soil.

References:

 Anilkumar, A.S., Hajilal, M.S., Nair, H.K., and Jacob, A.J., Technologies for

- Sustainable Mediculture, P 168, Kerala Agricultural University, Mannuthy, Thrissur, 2009.
- 2. Jessikutty, P.C. and Kiran, V.J., "Long pepper (*Piper longum*): A spice cum medicinal plant", *Ind.spices*, 38:3-4, 2001.
- 3. Package of Practices Recommendations: Crops, 14th Edn., P 360, Kerala Agricultural University (KAU), Thrissur, 2011.
- Pande, V.N., Joshi, G.C. and Pandey G., "Successful cultivation of pippali through agro-traits in mountain region - a new achievement towards drug development" Seminar on Research Ayurveda, CCRAS, 20-22 March, New Delhi, 4: 92-93, 1995.
- 5. Viswanathan, T.V., "Long pepper", Adv. in Hortic., Vol. XI. pp 373-384, 1995.
- Association of Societies for Growing Australian Plants, Morinda citrifolia. http:/farrer.csu.edu/ASGAP/m-cit.htm [20 July 2014], 2000.
- 7. Kumar, S.M. and Ponnuswami, V., "Soil and nutrient status of noni (*Morinda citrifolia* L.) as influenced by drip irrigation and manurial treatments", African J. Agric. Res. 9(3): 376-386, 2014.
- 8. Nelson, S.C., "Morinda citrifolia (noni), Species Profiles for Pacific Island Agroforestry", P 18, Available: http://www.ctahr.hawaii.edu/noni/downloads/morinda_species_profile.pdf [02 Dec. 2014], 2006.
- 9. Peter, P.I., Singh, K., Peter, K.V., and Marimuthu, T., "Noni- A future intercrop of coconut", *Indian Coconut J.*, 53(6): 4-6, 2010.
- Peter, K.V., Underutilized and Underexploited Horticultural Crops, Vol. 1., P 378, New India Publishing Agency, New Delhi, 2007.

MANAGEMENT OF GENETIC DISEASES: A RAY OF HOPE IN AYURVEDA

Nagaraj S.,¹ Prasanna N. Mogasale,¹ Rajalaxmi² and Nidhin V.¹

Abstract: A genetic disorder is a condition caused by one or more abnormalities in the genome, especially a condition that is present from birth. Nature and nurture play a major role in the overall development of an individual. Success in treatment of cases linked with hereditary causes is always a challenge. Even before the western system of medicine identified some of the latest advancements in genetics, āyurvedic literature had its own understanding of genetic diseases. Presenting here the case of a couple who had lost three children due to a rare autosomal recessive inherited disease called mucopolysaccharidosis. The couple was given proper counselling regarding all aspects of the disease; and a treatment protocol for conception of excellent progeny was designed keeping in mind all aspects of daivavyapāśraya, yuktivyapāśraya and satvāvajaya cikitsa. All measures mentioned in Carakasamhita for procreation of excellent progeny as well as removal of any karmajavyādhi were adopted. The help from parallel science of Jyotişa was also taken for planning the time of pregnancy. Due to the result of extensive treatments, samskāras and monitoring that followed thorough all stages over a period of more than two years, a female child was born to the couple. She is currently twelve years of age and is free from Mucopolysaccharidosis.

Introduction

Life affords no greater responsibility or greater privileges, than the raising of the next generation. Having to go through the loss of a child is among the worst experiences of parenthood. When this happens consecutively due to a hereditary disease it is more emotionally shattering and filled with uncertainty regarding the progression of their generation tree. A genetic disorder is a problem caused by one or more abnormalities in the genome, especially a condition that is present from birth. Genetic disorders may or may not

be heritable. In non heritable genetic disorders, defects may be due to new mutations or changes in the DNA. In such cases the defect will only be heritable if it occurs in the germ line. These diseases may be influenced by an inherited genetic condition in some people, by new mutations in some and by environmental factors in others. The extent to which a person will suffer from a genetic disorder or abnormality is determined by the environmental as well as events in the person's development. Genetic disorders may be categorised to be caused by either the

^{1.} Dept of PG studies in Roganidana, SDMCA, Udupi

^{2.} Dept of PG studies in Panchakarma, SDMCA, Udupi

conclusion regarding these aspects, but success in this case is a positive sign. Proper utilisation of trividhacikitsa (i.e. satvāvajaya, daivavyapāśraya and yuktivyapāśraya) contributed in dealing with the otherwise challenging genetic disorder.

Can āyurvedic treatment protocol play a role in handling genetic diseases like this? Not many success stories have been recorded in this aspect but āyurvedic treatment do have an edge over other systems of medicine. This clinical case does point out towards the various aspects from which this type of case can be approached and the blending of different systems (modern investigation techniques and Jyotiṣa) can be utilised for getting positive result.

References:

- Krishna Das, K.V., Text Book Of Medicine, 5th Edn., P 7, 1466, Jaypee Brothers Medical Publishers (P) Ltd., New Delhi
- 2. Ibid

- 3. https://e.wikipedia.org/wiki/mucopolysaccharidosis
- 4. https://e.wikipedia.org/wiki/mucopolysaccharidosis
- 5. www.ncbi.nim.nih.gov/m/pubmed/ 21506914
- Tewari, P.V., Ayurvediya Prasutitantra Evam Striroga, Part 1, 2nd Edn., P 300, 754, Chaukambha Orientalia, Varanasi.
- Krishnan Vaidyan, K.V. and Gopala Pillai, S., Sahsrayogam, Sujanapriyavyakya, P 340, 544, Vidyarambam Publishers, Alappuzha.
- Anna Moreshwara Kunte, Astangahrdaya, P 901, 956, Chaukambha Publication 2000, Varanasi.
- Acarya Yadavji Trikamji, *Carakasamhita*,
 P 341, 738, Chaukambha Publication,
 Varanasi, 2001.

10. Ibid

Kottakkal Ayurveda Series: 121



LIVER DISORDERS

SEMINAR PAPERS - 2012

Price: ₹ 50/-

Liver is the largest organ in the body which plays a central role in the digestion and metabolism. It is responsible for the metabolism of drugs and environmental toxins. Diseases of the liver are a major cause for the morbidity and mortality world wide. In āyurveda, liver is considered an

organ situated in koṣṭḥa i.e. gastro-intestinal tract. It is considered as the mūlasthāna (main seat) of raktavāhasrotas along with plīha (spleen). This book contains papers presented at the 49th Āyurveda Seminar on 'Liver Disorders', held at Kollam on October 2012.

PARA-SURGICAL APPROACH TO TRANSPHINCTERIC AND INTRERSPHINCTERIC FISTULA-IN-ANO - A CASE REPORT

Neelima Sherly John, 1 Sreedevi S.2 and R.N. Tripathy1

Abstract: Fistula-in-ano is described as Bhagandara in āyurvedic classics and is classified according to the vitiation of tridoṣa and the shape and site of the fistula tract. The surgical modalities in modern system of medicine viz. fistulotomy or fistulectomy are often successful in cases of superficial fistula but in other conditions inevitably it reoccurs or cause incontinence. These complications can be preferably prevented by Kṣārasūtra ligation, a para-surgical measure adopted in all types of fistulas, either single or multiple, irrespective of its position, external opening, etc. Kṣārasūtra was applied in a case of Trans-sphincteric fistula-in-ano with another incomplete extension of the tract anteriorly in inter-sphincteric plane with no communication to anal canal. The result was a satisfactory.

Introduction

Fistula-in-ano refers to an abnormal communicating tract lined by unhealthy granulation tissue; opens internally in the anal canal or rectum and superficially on the skin around the anus, symptomatically co-related to 'bhagandara' - a hollow tract being formed after bursting a painful and suppurated lesion in the perineal region. In the present scenario the prevalence rate of fistula-in-ano is 86 cases per 1,00,000 population with male female ratio 1.8:1. Other than the conventional fistulotomy or fistulectomy many new techniques have been evolved like instillation of fibrin glue, placement of fistula plug, ligation of the internal fistula tract (LIFT Procedure) as management methods. Despite of all these inventions, fistula-in-ano still remains as a perplexing surgical disease with high recurrence rate and complications, where āyurvedic management modalities of fistula is one step ahead through a para-surgical approach using a magical thread called kṣārasūtra which is a complete herbal preparation simple, safe and sure remedy for fistula-in-ano.

Case report

A twenty-six year old male patient reported at Amṛta Āyurveda Medical College on 4th June 2012 presenting with a complaint of soiling of cloth since 2 weeks. On P/R examination it was clinically diagnosed as fistula-in-ano with an internal opening at 6 O'clock position and also a suspicion of another high anal fistula. By taking the history thoroughly it was revealed

1. Deptt. of Shalya Tantra, Amrita School of Ayurveda, Vallikavu, Clappana P.O., Kollam

^{2.} Deptt. of Basic Principle, Govt Ayurveda College, Thiruvananthapuram

References:

- Sharma, P.V., Astangahrdaya (with commentaries Sarvangasundari of Arunadatta and Ayurveda rasayana of Hemadri), 9th Edn., Chaukhamba Orientalia, Varanasi, 2005.
- Shastri, A.D., *Bhaisajyaratnavali*, 1st Edn., Vol 2, Chaukhamba Sanskrit Bhavan, Varanasi, 2006.
- 3. Sharma, P.V., *Carakasamhita*, Vol 2, Chaukhamba Orientalia, Varanasi, 2008.
- Deshpande, P.J., Pathak, S.N., Sharma, B.N. and Singh, L.M., "Treatment of fistula in ano by Kshara Sutra", *J. Res. Ind. Med.*, 2: pp 131-139, 1968.
- Deshpande, P.J. and Sharma, K.R., "Nonoperative ambulatory treatment of fistula in ano by a new technique. Review and follow-up of 200 cases", *Amer. J. Proctol.*, 24: pp 49-60, 1973.
- 6. Deshpande, P.J. and Sharma, K.R.,

- "Successful non-operative treatment of high rectal fistula", *Amer. J. Proctol.*, 27: pp 39-47, 1976.
- 7. Gabriel, W.B., *The Principles and Practice of Rectal Surgery*, 5th Edn., pp 6, 268, 289-313, H.K. Lewis and Co. Ltd., London, 1963,
- 8. Goligher, J.C., *Surgery of Anus, Rectum and Colon*, 1st Edn., pp. 11 and 174-208, Cassell and Co. Ltd., London, 1961.
- 9. Parks, A.G., "The pathogenesis and treatment of fistula in ano", *Brit. Med. J.*, 1: pp 463-469, 1961.
- Perrin, W.S., "President's Address: Some landmarks in the history of rectal surgery", *Proc. Roy. Sac. Med.*, 25; pp 338-346, 1932.
- Sharma, Y.T., Sushrutasamhita (Sanskrit), 3rd Edition, P 4547, Nirnay Sagar Press, Bombay, India, 1938,

EFFECT OF VĀTAHARAPATRANĀDĪSVEDA IN ACUTE PARA-SPINAL MUSCLE SPASM AS AN EMERGENCY MANAGEMENT

Devi R. Nair and Manoj Kumar A. K.*

Abstract: Acute para-spinal muscle spasm is a commonly encountering clinical condition that often follows a trauma or weight lifting or sudden exposure to cold. Usually, it presents as a painful stiffness, which, at times, needs emergency intervention. From pañcakarma angle, certain pūrvakarma like nāḍīsveda are useful in this condition. In this context, a clinical study was conducted to evaluate the efficacy of vātaharapatranāḍīsveda in 11 cases of acute para-spinal muscle spasm as emergency management. Common vātaharapatra like eraṇḍapatra, nirguṇḍīpatra, ciñcāpatra, śigrupatra along with saindhava and jambīra in dhānyāmļa were used for nāḍīsveda. The result proved to be statistically significant (p<0.001) in Visual Analogue Scale.

Introduction

Acute para-spinal muscle spasm is a commonly encountering clinical condition in wards and OPDs. It present most often as a clinical condition demanding emergency management. Patient presents with painful stiffness in the affected area with limitation of motion of the affected part. This may be a result of trauma or weight lifting or sudden exposure to cold. Severity of pain compels the patient to take even the steroid therapy which may lead to further complications. Hence, it is high time to intervene in this issue with new therapeutic possibilities. The objective of was to study the effect of vātaharapatranādīsveda in acute paraspinal muscle spasm as emergency management.

In āyurvedic parlance, this disorder cannot be dealt as a separate disease entity, but can be viewed as a similar pathology as that of stambha with vāta-kaphadoṣa predominance since it is explained both under the vitiated doṣakarma of vāta and kapha. From pañcakarma point of view, some of the pūrvakarma like svedana is useful in this condition as it has got direct indication on sthambha. Nādīsveda, which comes under ūṣmasveda, is beneficial due to its vāta-kapha property.

Materials and methods

11 participants presented with acute attack of para-spinal muscle spasm were selected for the study. Vātaharapatra viz. eraṇḍapatra, nirguṇḍīpatra, ciñcāpatra, śigrupatra along with

^{*}Vaidyaratnam P.S. Varier Ayurveda College, Post Edarikode, Kottakkal, Malappuram Dist.,Kerala

Eraṇḍa, nirguṇḍī, ciñcā and śigrupatra, which are snigdha in nature, help in normalising vitiated vāta. Also, certain chemical constituents present in vātaharapatra, like salicylates in nirguṇḍīpatra, help in combating against local inflammatory reactions. Nāḍīsveda, which is vātakaphaśāmaka in character, also helps to relieve the stiffness. Svedana, which is stambhaghna, also contribute to the condition and give a fast relief. The therapy is cost-effective and feasible even in small IPD settings.

Conclusion

Vātaharapatranāḍīsveda is effective as an emergency management strategy in acute paraspinal muscle spasm.

References:

- Vaidya Jaadavaji Trikamji Acharya, Carakasamhita, Su. 13/13, 2nd Edn., Chaukhamba Orientalia, Varanasi, 2004.
- Priyavrat Sharma, Susrutasamhita, Su 31/ 14, 1st Edn., Varanasi: Chaukhamba Orientalia, 2008.
- 3. Ibid, Su. 45/214.
- Hari Sastri Paraadakara Vaidya, Astangahrdaya, Su.10/11, 9th Edn., Chau-khamba Orientalia, Varanasi, 2004.
- 5. Ibid, Su. 6/145
- Gillian, A.H. and Samra, M., "Measures of adult pain [Internet]. 2011 [cited 2011 Jun 20]. Available from: onlinelibrary. wiley.com/doi/10.1002/acr.20543/pdf.

Kottakkal Ayurveda Series: 137



AGNI THE AYURVEDIC CONCEPT & APPLICATION

Essay adjudged best in All India Ayurveda Essay Competition 2014

Dr. Praveen Balakrishnan

Price: ₹ 200/-

Agni is present everywhere in human body, but still there are some prime places. According to Bhadanta Nāgārjuna, Jaṭhara is the prime place of agni. This agni present in the pittadharakala, also

called as grahaṇi. Agni is the active force or vīrya of pitta. Pitta can be physically collected. Agni can only be understood based on its functions. It is the division of tejomahābhūta. Tejus is tīkṣṇa and uṣṇa in nature. Hence, agni in śarīra is also tīkṣṇa and uṣṇa. Ācārya Caraka has described that the agni that found in this Universe is itself applied into the body. Agni in human body performs five different types of activities - Pācana, rañjaka, bhrājaka, ālocaka and sādhaka. A thorough knowledge of the basics of agni is required for understanding the function of bodily system.

ROLE OF UDVARTTANA ON PSYCHOPHYSICAL PARAMETERS IN HEALTHY VOLUNTEERS - A RANDOMIZED CONTROLLED TRIAL

Vivek Kumar Mishra,¹ Dilipkumar K.V.² and Neha Mishra³

Abstract: Udvarttana is a massage technique of whole body below the neck with powders of medicinal plants. It alleviates vitiated kaphadoṣa, reduces excess of fat in the body, increases the stability of body and promotes the excellence of skin. Many of the life style modification practices are not in use as a preventive measure. The role of udvarttana on the psychophysical changes in human body has mentioned in our classics; however, no studies have conducted on this topic. Hence, a study aimed to prove the effect of udvarttana on psychophysical parameters of healthy volunteer to prevent kapha and meda related diseases was conducted. The result found to be encouraging.

Introduction

The main objectives of ayurveda are maintenance of health and treatment of diseases.1 Here, health refers to both physical and psychological health. To maintain health, one should follow principles of svasthavrtta.2 In svasthavṛtta, ācāryas have given prime importance for the prevention of diseases both communicable and non-communicable disease. Observance of systematic daily routine (dinacarya), life in accordance with the season (rtucarya) and well planned schedules of âhāra and vihāra help to preserve health. Ācāryas have explained daily regimen and seasonal regimen to be followed under dinacarya and rtucarya for health preservation. Various procedures have explained under dinacarya and rtucarya that are to be implemented. The procedures like abhyanga, udvarttana, pradeha, pariṣeka, marddana, vyāyāma etc. are explained under dinacarya with an aim of maintaining total health.

Here, external purification procedure, udvarttana is helpful to eliminate the aggravated doṣas by its property. Many ācāryas have mentioned udvarttana for the management of obesity or sthaulya as it is having properties like kaphahara, medovilayana, aṅgasthirīkaraṇa etc.³ And also udvarttana removes bad odour, restricts the process of excessive sweating and alleviate the aggravated doṣas by its effect.⁴-6 Udvarttana is a simple process and has no harmful effect when compared with other fat reducing packages and treatments. Economically too it is affordable and volunteer's friendly.

1. Department of Svasthavritta, Bharat Ayurveda Medical College, Muzaffarnagar

^{2.} Dept. of Swasthavritta, VPSV Ayurveda College Kottakkal

^{3.} Department of Kaya Chikitsa, Bharat Ayurveda Medical College, Muzaffarnagar

References:

- Sharma Priya Vrat, Carakasamhita (English translation), 9th Edn., Vol I. Sutrasthana, Chapter 30, Arthedasamehamuliya Adhyaya; P 240, Chaukhamba Orientalia, Varanasi, 2004.
- 2. Mishra, B.S., *Bhavaprakasa* (Hindi Translation), 9th Edn., Vol I, Purva Khanda. Chapter 5, Dincaryadi prakrana; sloka 13, Chaukhamba Sanskrit Sansthan, Varanasi, 2005.
- 3. Sharma Priya Vrat, *Carakasamhita* (English translation), 9th Edn., Vol I. Sutrasthana, Chapter 5, Matrasitiya Adhyaya; pp 39-40, Chaukhamba Orientalia, Varanasi, 2004.
- 4. Srikantha Murthy K.R., *Astangahrdaya* (English translation), 6th Edn., Vol I., Sutrasthana, Chapter 2, Dincharya Adhyaya; P 25, Chaukhamba Krishnadas Academy, Varanasi, 2009.
- Sharma Priya Vrat, Susrutasamhita (English translation), Vol II., Chikitsasthana, Chapter 24, Anagatabadha Pratishedh Adhyaya, pp 497-98, Chaukhamba Visvabharati, Varanasi, 2004.

- Tripathi, I.D. and Tripathi, D.S., *Yogaratnakar* (Hindi Translation), Nitya Pravratti Prakara, P 51, Krishnadas Academy, Varanasi, 1998.
- Sivaram, A., Salam, E.A. and Rema, C., "Assessment of the relation between different prakrtis and basal metabolic rate", [M.D. Dissertation]. University of Kannur, Kerala, 2006.
- 8. Melvin, J. L., Rheumatic disease in the adult and child: Occupational therapy and rehabilitation, Davis, Philadelphia, 1989.
- Obagi, Z.E., Alaiti, S., Obagi, S., Stevens, M.B. and Delune, M.E., "Standardizing the evaluation of treatment outcomes after skin rejuvenation: the qualitative scoring system", *Aesthetic Plast Surg*, May-Jun; 24(3), pp 165-70, 2000.
- 10. University of Washington. U.S.A. WHO QOL (BREF) Questionnaire. US Version. [Internet].1997. (Cited Date. 25 mar 2013). Available from: http://depts.washington.edu/seaqol/docs/WHOQOLBREF%20with%20scoring%20 instructions.pdf

PRACTICAL ASPECTS OF UTTARAVASTI IN FEMALES

Sandhya C.V.*

Abstract: Uttaravasti through apatyamārga (vaginal orifice) is a unique method to the practitioners in the field of strīroga. Even though uttaravasti gives good results in conditions where all other remedies fail, the number of skilled practitioners administering uttaravasti is less. This reluctance in the practice of uttaravasti may be due to the lack of practical exposure and fear of complications. If the procedure is done carefully, the chances of complications are less. This paper briefly discusses the practical aspects of uttaravasti in females.

Types

Uttaravasti through apatyamārga can be done in 3 methods considering the amount of medicine used and the extend up to which the vastinetra is introduced. They are intravaginal, intracervical and intrauterine. Now a day, for practical ease, the vastipuṭaka is replaced by disposable syringe and vastinetra by rubins cannula/ infant feeding tube/IUI cannula.

Intravaginal and intracervical:- In intravaginal uttaravasi, the medicine fills in the vaginal canal only and around 60 ml of medicine is needed for this. According to all ācāryas of āyurveda, the amount needed for uttaravasti is 2 pala (96 ml). Intravaginal uttaravasti can be interpreted as the uttaravasti explained by all ācāryas, as the amount of medicine used being more than the uterine volume (volume of uterus is 3-5 ml).

The second method is intracervical, where the

nozle or cannula is just introduced in to the external os of cervix to release medicine to the cervical canal or the medicine is sprayed into the cervival canal in a pulsatile manner, keeping the cannula 1 cm away from the external os. Here the amount of medicine should be minimal up to 5 ml as the volume of uterus is 3-5 ml. If more amount of medicine is used, it may cause pelvic irritation and cramps due to overflow of medicine through the fallopian tubes.

Intrauterine uttaravasti:- In intrauterine uttaravasti, the nozzle should be introduced behind the internal os of the cervix so that the medicine reaches the uterine cavity directly. While introducing the nozzle into the uterine cavity, after passing the external os, the nozzle further passes through an area of a resistance feel by which, it can be understood to have passed through the internal os. Here also the

^{*}Consulting Physician, Chappangathodi, Kaippuram - 679 308, Naduvattom, Palakkad Dist.



Fig. I. d - IUI canula.

the desired medicine is taken in a syringe. Then rubins cannula/infant feeding tube/IUI canula (Fig. Ib-d) is fitted on the nozzle of the syringe. Cervix is held steady using a vulsellum. After expelling the air bubbles the tip of the canula is introduced just beyond external os/1 cm away from the external os in intracervical and beyond the internal os in intrauterine uttaravasti and 3-5 ml of the medicine is administered slowly in a pulsatile manner. Then speculum is removed. A yonīpicu is placed after the procedure to retain the medicine in position for some more time. Ask the patient to take rest for 3 hrs and to remove the pichu ball by pulling the picu tail, when she feels the urge for micturation.

Medicines:- Some of the commonly used medicines for uttaravasti are: Phalaghṛtam in infertility due to anovulation and luteal phase

defect; Sukumāraghṛtam for oligomenorrhoea, hypomenorrhoea, secondary amenorrhoea, anovulation and inadequate endometrial maturation; Kārpasāsthyādi tailam and Mahānārāyaṇatailam for endometriosis and adenomyosis; Balātailam for genital prolapse, dysmenorrhoea and pelvic pain.

Conclusion

Performing intravaginal and intracervical uttaravasti is safe as chance of complications is less. In intrauterine uttaravasti, though rare, there is a chance of sudden complications like vasovagal shock, endometritis and uterine spasm. If the procedure is done carefully after knowing the position and direction of uterus by bimanual examination, the chances of complications are less. Deciding the type of uttravasti for a patient is based on the nature and extends of the disease and also the confidence of the physician. Bio-availability of the medicine through vaginal route is more than oral route as oral medicines are undergoing metabolic inactivation. Possible mechanism of the action of medicine is passive diffusion through the tissues and absorption through venous and lymphatic systems.

DANTOTPATTI (TOOTH ERUPTION) - A CRITICAL REVIEW

Chethan Kumar V.K.* and Harshitha M.S.**

Abstract: The appearance of danta (dentition) in the oral cavity is called as dantotpatti or dantajanma (teeth eruption). Tooth is included among the types of bones as rucakāsthi. Eruption of tooth in the mukha (oral cavity) is considered as dantotpatti or dantajanma (tooth eruption). Eruption is the axial or occlusal movement of the tooth from its developmental position within the jaw to its functional position in the occlusal plane. It is influenced by factors such as gender, socioeconomic and nutritional factors and ethnic groups. This article reviews dantotpatti (tooth eruption) from the āyurvedic and modern perspective.

Introduction

Ācārya Kaśyapa a pioneer in the field of Kaumārabhṛtya (Pediatrics) has given a wide range of description regarding eruption of teeth, its development, reason for eruption and its abnormalities with its treatment.

Teeth are an important part of the dentomaxillofacial complex. They are biological markers of maturity and their eruption into oral cavity is an important milestone in a child's life. The normal eruption of deciduous and permanent teeth into the oral cavity occurs over a broad chronologic age range.

Evolution of the human race has seen many changes in the living habits, food habits and oral hygiene habits over a span of thousands of years, which may have influenced the eruption of teeth as well. Studies have also reported differences in eruption of permanent teeth between ethnic groups, gender, socio-

economic and nutritional factors, carious condition, fluorides congenital abnormalities such as supernumerary teeth, Down's syndrome, cleidocranial dysplasia and environmental and secular trends.

Rationalization of eruption timings is more desirable in the present era, since dentistry has widened its horizons towards many specific fields. Developmental norms of emergence of permanent teeth need to be established for diagnosis, orthodontic treatment planning and preventive dentistry procedures, archeological, anthropological and paleontological may have legal as well as forensic application. In this article, the concept of tooth eruption has been reviewed in detail.

Literary review

Paribhāṣa (etymology):- The organ which is located in the oral cavity and that helps in masticating the hard substances is called as

^{*}Department of PG Studies in Kaumarabhritya, S.D.M.C.A Kuthpady, Udupi-574118, Karnataka.

^{**}Department of PG Studies in Rachana Shareera, S.D.M.C.A Kuthpady, Udupi-574118, Karnataka.

mentions varied disorders such as fever, vertigo, loose motion during dantotpatti due to vitiation of doșa. According modern science, teething is generally associated with gum and jaw discomfort as the infant's tooth prepares to erupt through the gum surface. As the tooth moves beneath the surface of the gum tissue, the area may appear slightly red or swollen. Sometimes a fluid-filled area similar to a 'blood blister' may be seen over the erupting tooth. Some teeth may be more sensitive than others when they erupt. There may be increased drooling, child may be restless or may have decreased sleeping due to gum discomfort, refuse food due to soreness of the gum region, brings hands to the mouth mild rash around the mouth due to skin irritation secondary to excessive drooling. There may be chance of occurrence of diarrhea, vomiting, cough, etc; due to irritation in the gums the child tends to bite article available and put hands to mouth. This may lead to infection.13b

Eruptive disorders:- According to modern science, natal teeth (sadantajanma) is observed approximately 1 in 2000 newborn infants; usually there are two in the position of mandibular central incisors. It can be extracted at risk of aspiration and feeding difficulties. 17a As far as akāladanta is concerned, it is said that delayed eruption of the 20 primary teeth may be familial or indicate systemic or nutritional disturbances such as hypopitutarism, hypothyroidism, cleidocranial dysplasia, trisomy 21, progeria and rickets.^{17a} Hīnadanta can be compared with anodontia. It occurs when no tooth buds form, familial missing teeth or when there is a disturbance of normal site of initiation.17b

Conclusion

Dantotpatti (appearance of tooth in the oral cavity) or tooth eruption is the axial or occlusal movement of the tooth from its developmental position within the jaw to its functional position in the occlusal plane. Asthidhātu and majjādhātu are considered to be the factors for the formation and growth of teeth. Teeth eruption is influenced by the sex i.e. in females there will be early teeth eruption than males. The discussion reveals that concepts of dantotpatti explained in āyurveda holds well in parlance with the process of teeth eruption according to modern dentistry.

References:

- Ayurvedacarya Venimadhava Shastri Joshi and Ayurveda Visarada Narayana Hari Joshi, Ayurvediya Sabdakosa, Prathama Khanda, P 391, Maharashtra Rajya Sahitya and Sanskriti Mandala, Mumbai 1968.
- Amarasimha, Namalinganusasana or Aamrakosa, Commentary by Bhanuji Dikshita, P 234, Chaukhamba Sanskrit Pratishtan, Delhi, 2007.
- Pandit Hemaraja Sharma, Kasyapasamhita (Vidyotini Hindi Commentry), Sutrasthana, 4th Edn., Chaukambha Sanskrit Samsthan, Varanasi, 1994.
 - a) P 11; b) P 13; c) P 12
- 4. Vaidya Yadavji Trikamji Acrya, *Susruta-samhita*, Nibandha Sangraha, Chaukhamba Krishnadas Academy,2008
 - a) P 366; b) P 367
- Acarya Tarachand Sharma, Ayurvediya Sharir Rachana Vigyan, P 187 and 471, Nath Pustak Bhandar, New Delhi
- 6. Brahmananda Tripati, Sarngadarasamhita

- (Dipika Hindi Vyakhya), P 57, Chaukambha Surabharati Prakashan, Varanasi, 2006.
- 7. Brahmanand Tripathi, *Carakasamhita* (Hindi Commentary), P 878, Chaukhamba Surabharati Prakashan, Varanasi, 2004.
- Monier, M. Williams, Sanskrit English Dictionary, Vol. 1, P 691, Parimal Publications, New Delhi, 2008.
- Astangasangraha (Shashilekha Sanskrit Commentary by Indu), 2nd Edn., Chaukhamba Sanskrit Series Office, Varanasi, 2008.
 - a) P 639; b) P 639; c) P 640;
- Pandit Hemaraja Sharma, Kasyapasamhita, Chaukhambha Sanskrit Sansthan, Varanasi, 2006
 - a) P 12; b) P 11
- Gerard, J. Tortora, Bryan H. Derrickson, *Principles of Anatomy and Physiology*, 12 Edn., Vol. 2, P 931, 932, John Wiley & Sons Pvt. Ltd.
- 12. Major. M. Ash and Stanley, J. Nelson,

- Wheeler's Dental Anatomy. Phisiology And Occlusion. 8th Edn., (Sauders An imprint of Elsevier.)
- a) P 2; b) P 36
- 13 Kumar, G.S., *Orban's Oral Histology And Embryology*, 12th Edn., Elsevier, 2010.
 - a) P 281; b) 292; c) 294
- Inderbir Singh and Pal, G.P., Human Embryology, 8th Edn., pp 138-141, Macmillan India Limited, 2011.
- William J. Krause, Krause's essential Human Histology for Medical Students, 3rd Edn., P 174 and 315, An imprint of Elsevier.
- Amarjith Singh Bhatia et al, "Evaluating period of Accelerated skeletal maturation in Gujarathi Children between the ages 8-14 years", The Journal of Indian Orthodontic Society, 46(4): pp 250-253, 2012.
- 17. Behrman, et al, Nelson Text Book Of Pediatrics, 17th Edn., Saunders, 2004.
 - a) P 1206; b) P 1205

PAÑCAKARMA THERAPY AN ABSOLUTE HEALTHCARE AND WELLNESS PROGRAMME OF ÄYURVEDA

P.K. Asok* and T. Sreekumar**

Abstract: Āyurveda is the perfect science based on scientific and philosophical fundamentals for the benefit of mankind. Its worldwide recognition as an effective alternative or complementary therapy has brought pañcakarma into prominence in modern times more than ever before. The principles and rationale of this unique therapy have an intellectually acceptable scientific basis. Pañcakarma aims at the maintenance of total health making every particle of the body active to the fullest possible extent.

Ayurveda is generally regarded as the knowledge of life. Learnt with conviction and dedication, one attains knowledge, wealth and pleasure. An ancient science which is gaining popularity today treats diseases through natural means, gained from the spiritual powers of sages. Constant occupations by foreign forces and the ascent of modern medicine have affected this science but its purity and novelty have helped to weather the storm. Vicious side effects and modern medicine and globalization have forced people to look at a holistic approach towards health care. Foreign delegates and students from Western Universities are learning and propagating this noble science.

The aforementioned phenomena is due to the following factors:

1. Āyurveda believes in the functional unity of the body and mind.

- 2. Use of berbal products.
- 3. Non-toxic nature of therapeutics.
- 4. Emphasis on positive health through disciplined routine and regimen along with seasonal therapeutics.
- Strict mental discipline and adherence to moral values are considered as a prerequisite for mental health.
- Inimitable therapies of which 'pañcakarma' is one of the commonly practiced procedure. Its line of treatment consists of -
 - The elimination or evacuation of waste products of the body.
 - Therapeutic control of the disease.
 - Dietetics.

These are scientifically termed as apakarṣaṇa, nidānaparivarjana and pathyāpatya prayoga. Pañcakarma, a branch of Kāyacikitsa, comprises two words: 'pañca' meaning five and 'karma' meaning therapy or process. This

^{*}Govt. Ayurveda College, Thiruvannathapuram

^{**} Vaidyaratnam Ayurveda College, Ollur. Trissur

śiro-picudhārana (keeping a piece of cotton soaked in oil on the head); śirovasti (keeping the oil over the head); akṣitarpaṇa (process of keeping the unctuous substance in the eye); gandūsa and kabaladhārana (gargling and retaining medicated oil/decoction or ghee in oral cavity); dhūmapāna (medicinal smoke inhalation); mardana (massages); pizhicil/ sarvāngadhāra (cloth dipped in warm medicated oil is squeezed all over the body in a synchronized manner); şāşţikapiņdasveda (specially prepared navara rice pottalis are dipped in the medicated milk and are rubbed all over the body in lukewarm state in a circular manner), etc. are some of the general treatment procedures which helps for the preservation of health.

The complete result of rasāyana and vājīkaraṇa (treatment for rejuvenation and aphrodisiacs) are achieved only after the pañcakarma treatment as it purifies the body by elimination and alleviation. Rasāyana is defined as tonic, which promotes health by improving the quality of all the tissues. Vājīkaraṇadravyas (substances which gives sexual ability) have a marked action on sexual sphere and organs. Prior to rasāyana and vājīkaraṇa treatments, it is necessary to purify the body by pañcakarma.

Pañcakarma in stress related problems

Stress has become a household factor of the modem world causing various problems such as gastro-intestinal disorders, hypertension, insomnia, mental distress, graying of hair, hampering the quality of skin complexion, etc. Pañcakarma helps to keep it at bay. Man struggles continuously to combat with the changing environment to keep him fit and healthy in all the seasons. This is achieved by

following the rules and regimen described in āyurvedic classics and adjusting the internal and external environmental factors. Nasyakarma, śirodhāra, śirolepa are very much effective in stress problems.

Pañcakarma therapy has a great role in the management of diseases like hemiplegia, paraplegia, parkinsonism, arthritis, gtout, cervical spondylosis, low back pain, sciatica, sinusitis, migraine, skin disease, bronchial asthma, lipid disorders, mental retardation, impotency, etc. Infertility can be kept under check and sometimes cured with the help of pañcakarma. Even mental disorders, epilepsy and insanity etc. have responded very well to this eliminative line of treatment.

Beauty and pañcakarma

Pañcakarma is also helpful in maintaining one's beauty. Abhyanga helps to improve blood circulation and vātapraśamana and thereby helps to maintain proper tone and shape of organs. Regular abhyanga with medicated oils helps in increasing the weight of those who are too lean. Udvarttana and svedana help to achieve weight-loss in over-weight condition. Lush eyelashes with the help of netratarpaṇa; nasyakarma and other forms of face massages help to maintain a beautiful face.

Conclusion

Āyurvedic treatment modalities especially pañcakarma procedures should be performed under the expert guidance and medical supervision. Āyurveda is not only useful for curing diseases but also highly effective in promoting strength of the body and mind. Preventive pañcakarma therapies will contribute in health tourism as a complete wellness and health care programme.

āryavaidyan āryavaidyan

EFFECT OF PADMAKA AGADA IN HERPES ZOSTER

Dona Abraham Mattam,* S.R. Manju,* and C.G. Sreevidya**

Abstract: Herpes zoster is caused by *Varicella zoster* virus. The virus remains dormant in the dorsal root ganglion after an attack of chickenpox. Reactivation of this virus causes herpes zoster. The symptoms of herpes are similar to the features of spider-bite mentioned in the āyurvedic classics. Padmaka agada, indicated in lūtāviṣa by Vāgbhaṭa, is cost effective and has showed statistically significant effect in reducing the symptoms of Herpes zoster.

Introduction

Herpes zoster is a disease that results from the reactivation of latent *varicella zoster* virus from dorsal root ganglia, especially in one who suffered from chickenpox in the past. It occurs at all ages but its incidence is highest among individuals in the sixth decade of life. Females show significantly higher incidence than males. Most cases of zoster occur spontaneously, but trauma and stress have also been proposed as triggers of reactivation.

The viruses that cause herpes zoster are present in the fluid within the blisters of people suffering from shingles. Transmission of this virus mainly occurs through direct or indirect contact with the fluid in the blisters. According to Agadatantra, viṣa is classified into akṛtrima and kṛtrima. Akṛtrima is classified into sthāvara and jaṅgama. Jaṅgamaviṣa includes sarpadamśa, lūtādamśa, vṛścīkadamśa, mūṣikadamśa, etc. Herpes zoster has close

resemblance with the general signs and symptoms of lūtāviṣa (spider poisoning) mentioned by our ācāryas.

Herpes zoster and lūtāvisa

The symptom 'bahuvedana' (severe pain) mentioned as a sāmānyalakṣaṇa in lūtādamśa is a predominant feature of herpes zoster. The pain due to inflammation of nerve roots in that area may be mild to severe in the affected dermatome. The symptom tāpam in lūtādamśa can be considered as local burning sensation seen in herpes zoster.

The symptom aruṇavarṇa closely resembles with the erythematous skin rash that manifests in herpes zoster. Sphoṭam can be correlated with the cloudy vesicles seen in herpes and jvaram with rise in temperature due to local inflammation. Kaṇḍū in lūtāviṣalakṣaṇa resembles itching sensation associated with herpes.

Herpes zoster is caused due to the reactivation

^{*}Dept. of Agadatantra, Panchakarma Hospital Campus, Poojappura PO, Trivandrum - 695 012

^{**} Dept. of Agadatantra, Govt. Ayurveda College, Kannur

with vāyu, ākāśa and agni) guṇa; uṣṇavīrya and tiktarasa, it stimulates jaṭharāgni which in turn stimulates all other agnis. Suśruta says that "Pitta vyatirekatanyoagnirupalabhyate". The seat of brājakapitta at skin level gets stimulated by correcting jaṭharāgni and thereby helps in reducing discolouration.

Action at the level of śrotas:- Due to its laghu, rūkṣaguṇa and uṣṇavīrya, the formulation helps to remove śrotorodha as it penetrates minute śrotas.

Action at the level of dhātu:- Skin disease is a clinical entity due to raktadhātuduṣṭi. The raktaśodhana property the yoga, helps to reduce raktaduṣṭi and thereby alleviates skin diseases.

The symptoms of herpes zoster like burning sensation, erythema, vesicles, fever, itching, etc. show that the disease is predominantly kaphapittahara in nature. Due to the uṣṇavīrya, the yoga helps to alleviate vāta.

Further, phalini has jvaraghna and vraṇaropana properties. Vāgbaṭa has indicated phalini as a pathyāhāra in Kuṣṭhacikista. It is effective in fever and healing of vesicles; due to its śītavīrya and tṛṣṇaghna properties, it reduces burning sensation also.

Haridra has varnya and vranahara properties. So the drug is effective in reducing the discolouration and improving the process of healing. Also, studies have testified the antiviral effect of haridra. Turmeric is commonly used as a supplement to control herpes; as curcumin makes the cells more resistant to invasion of herpes virus, its strong

anti-inflammatory action help to control the discomforts caused by virus outbreak. Reduced immunity is considered to be one of the main causes of reactivation of virus. Tumeric also promotes the functioning of innate immune system.

Dāruharidra is also vraņaropaņa and tvakdoṣahara which promotes healing and improves the complexion of skin. It also possesses antiviral effect.

Honey and ghee were the two anupānas used. Honey has properties like śīitavīrya, yogavahi, tridoṣahara, vraṇaśodhana and vraṇaropaṇa. Also, it has anti-viral, anti-bacterial and antifungal properties. Ghṛta is madhura, saumya, mṛdu and śītavīrya. It can bind with soluble nutrients and helps to penetrate the lipid based cell wall of the body. Ghṛta possesses the property to increase the potency of certain herbs by carrying the active components to the interior of the cell where they impart most benefit. Also, ghee contains high concentration of butyric acid that contains antiviral properties.

Avipatticūrņa has viṣhara properties and it improves agni and pacifies pitta.

Conclusion

Padmaka agada provides good relief in the symptoms of herpes zoster like burning sensation, vesicle and fever. Even though pain and discoloration was not completely cured in a few subjects, the yoga is definitely effective as evident from the subjective score and statistical data.

RAJONIVṛTTI (MENOPAUSE) - THE TRANSITION PERIOD FOR MIND AND BODY

Shahina Mole S. and A. Nalinakshan**

Abstract: Menopause is a crucial period in a women's life. During the menopausal transitions, more erratic fluctuations in female reproductive hormones can lead to an array of physical and psychological symptoms. Effects of menopause are mainly due to hypo-estrogenic state, which influences the various organ systems of the body. Rajonivṛttikāla is mentioned by almost all ācāryas without any controversy as 50 years of a female. Nidāna of rajonivṛtti may be considered as jara, kāla, svabhāva, vāyu, dhātukṣaya and karma. It is the sandhikāla of middle and old age. This is the transitional zone of pitta to vāta. At this stage, alteration in the physiological activities of pitta and association of vātavṛdhi lead to hot-flushes and other symptoms of menopause. Vāta is responsible for kṣaya of all dhāthus. This generalized dhātukṣaya causes kṣaya of all upadhātus, hence, leading to ārttavakṣaya i.e. rajonivṛtti. Rajonivṛtti is a svābhāvikavyādhi as that of jara and mṛtyu. It may be made yāpya by rasāyana, dietetics, etc.

Introduction

Menopause is the permanent cessation of menstruation resulting from loss of ovarian follicular activity; it marks the end of the reproductive life. Quality of life declines during this period due to the various problems associated with oestrogen deficiency and ageing. With improvement in medical treatment and increased focus on preventive health care average life expectancy has increased. As a result, most women can now expect to live at least one third of their lives in post menopause. Attention to the health and emotional needs of these women is important for the individual, family and community.

Review of literature

Menopause is defined as cessation of menses

for a period of 12 months or more in a woman aged 40 or above. It is a retrospective diagnosis that can be made with certainty only after 12 months of amenorrhoea in the appropriate age group.

The mean age of menopause varies with the ethnic group. The age at menopause is primarily determined genetically. High socioeconomic status, low parity, smoking are associated with an earlier age at menopause. The average age of women experiencing their final menstrual period is 51.5 years.

Menopausal transition or perimenopause or climacteric is the period preceding the menopause characterised by irregular menses and missed periods. The transition typically develops over a span of 4 to 7 years and the

^{*}Dept. of Prasutitantra and Striroga, Govt. Ayurveda College, Thiruvananthapuram, Kerala, India.

References:

- जरापक्रशरीराणां यति पञ्चशतः क्षयम् । (सु. शा. ३/११)
- वत्सराद्वादशाद्ध्वं याति पञ्चशतः क्षयम् ।
 (अ.ह. शा. १/७)
- 3.काले प्रवर्तमानमसृक् पुनः जरापक्रशरीराणां याति पश्चशतः क्षयम् (सु.शा. ३/११)

Bibliography

- Dutta, D.C., The text book of Gynaecology, New Central Book Agency (P) Ltd., Kolkata, 2007.
- Kumar P. and Malhotra N., *Jeffcoate's Principles of Gynaecology*, Jaypee Brother Medical Publishers (P) Ltd, New Delhi, 2008.
- Stedmen Medical Dictionary, Houghton Mifflin Company, USA, 2002
- 4. Rao, K.A., *Textbook of Gynaecology*, Elsevier, a division of reed Elsevier India Pvt. Limited, India, 2008
- Jonathan, S. Berek, Berek and Novak's Gynaecology, 14th Edn., Lippincott Williams and Wilkins, 2006.

- Rajan, R., Postgraduate Reproductive Endocrinology, Jaypee Brothers Medical Publisher (P) Ltd., New Delhi, 2004.
- Acarya Yadavji Trikamji, Carakasamhitha, Chaukhamba Krishnadas Academy, Varanasi, 2006.
- Acarya Yadavji Trikamji, Susrutasamhita, 8th Edn., Chaukhamba Sanskrit Samsthan, Varanasi, 2005.
- Jyotir Mitra, Astangasamgraha of Vrdha Vagbhata (Edited by Shivprasad Sharma), Chaukhamba Sanskrit Series Office, 2012
- Usha, V.N.K., A Text Book of Gynaecology
 Streeroga Vijnan, 1st Edn., Chaukhamba
 Sanskrit Pratishthan, Delhi,2010
- 11. Premvati Tiwari, *Ayurvediya Prasuti*tantra Evam Striroga, Part I, 2nd Edn., Chaukhambha Orientalia, Varanasi, 1999.
- 12. Ibid, Part II, 2000.
- 13. Navoday Raju, N.R., Deepika, S., Kulkarni Pratibha, Kekuda, T.R. and Prashanth, "A conceptual analysis of rasadhātu" www.iamj.in IAMJ: Volume 3; Issue 10; October, 2015.
- 14. Durgesh Gupta and Kar, A.C., "Concept of Agni An āyurvedic Review" www.iamj.in *IAMJ:* Volume 3; Issue 10; October, 2015

A CLINICAL IMPORTANCE OF YUKTI IN ĀYURVEDA

Priyanka,¹ Mamta Kumari,² Meena K.L.¹ and Asit Kumar Panja¹

Abstract: Yukti is very necessary in our day today activities; everywhere one can apply through yukti and it is equally important for śāstrajñāna also. Yukti as a pramāṇa is mentioned in Carakasamhita only; however, the word yukti can be seen in other samhita also. Yukti is discussed in Carakasamhita in a different manner like parīkṣa, pramāṇa, guṇa, yojana of drugs, prayojana, upāya, yougikakalpana, upakrama, etc. By applying yuktiparīkṣa, a physician can observe the course, duration of a disease, its nidānas, lakṣaṇas, etc.; and from the analysis of all these factors one can come on a definite diagnosis. Yukti as guṇa, is a tool for the management of diseases and also for formulating the medicines.

Introduction

Āyurveda, the science of life deals with each and every aspect of human life. Its first objective is to maintain the health and happiness, while the next is to manage and restore the status of health and productive state of mind. Ayurveda offers wonderful tool for better life style. It gives equal importance to our body, mind and soul; therefore, works with holistic approach. Ācārya Caraka was the first author to describe yukti as parīkṣa and guṇa under caturvidhaparīkṣa and guṇa respectively. Caraka has accepted forty-one gunas under four subtitles as Ādhyātmika, Vaiśeṣika, Gurvādi and Parādi. Among these, parādi guņas are given more importance by describing them as cikitsāsiddhi upāya.1a It also indicates that these gunas are mandatory to be there in the physician and the pharmacist who actually take part in formulating the treatment. Yukti is one of these parādi guņas. Yukti is a tool for formulating the treatment. Success of the treatment of a disease depends upon the yukti which includes selection of proper therapy with due regard to the nature of the dosas vitiated in that disease. In āyurveda, yukti is described as both parīkṣa and guṇa. Application of yukti in āyurveda is evident from the fact that Caraka has given the first and most important place to the physician in the quadruple of therapeutics. Caraka has narrated physician as vijñāta, sasita and yokta.16 Yokta is the capability of physician to arrange the proper management for a particular disease in a particular patient.2a

Concept of yukti

The intellect which perceives things as

1. Department of Basic principle, National Institute of Ayurveda, Amar Road, Jaipur

^{2.} Department of Rogavikriti & Vigyan, NIA, Jaipur

getting knowledge through yukti and through anumāna. By establishing yukti as an independent principle of āyurveda, Caraka has provided a strong and rational base for the treatment on which the entire rational medicine stands, called as yuktivyapāśrayacikitsa.

References:

- Vaidya Yadavaji Trikamaji Acarya, Carakasamhita, Chaukhambha Surbharti Prakashana, 2008 Varanasi,
 - a) Sutrasthana 26/30; b) Sutrasthana 9/10; c) Sutrasthana 11/25; d) Sutrasthana 26/12; e) Sutrasthana 11/36; f) Vimanasthana 8/130; g) Sutrasthana 11/17; h) Sutrasthana 11/23; i) Sutrasthana 11/32; j) Sutrasthana 11/24; k) Sutrasthana 11/7; l) Vimanasthana 8/149; m) Sutrasthana 4/20; n) Sutrasthana 26/31; o) Sutrasthana 1/126; p) Cikitsasthana 24/60; q) Sidhisthana 12/

- 47-48; r) Sutrasthana 2/16; s) Sutrasthana 26/12.
- Carakasamhita (with Ayurveda Dipika commentary by Cakrapanidatta), 2nd Edn., Krishnadas Academy, Varanasi, 2006.
 - a) Sutrasthana, 9/10; b) Sutrasthana 10/3;
 - c) Sutrasthana 11/24; d) Sutrasthana 26/12;
 - e) Sutrasthana 11/36; f) Sutrasthana 26/31;
 - g) Sutrasthana 1/58; h) Sutrasthana 26/30;
 - i) Sutrasthana 11/24.
- 3. Vaidya Jadvaji Trikamaji Acarya, *Susruta-samhita* (with Nibhandhasamgraha commentary), Sutrasthana 7/8, Chaukhambha Sanskrit Sansthan, Varanasi, 2012.
- 4. Pt. Hari Sadashiv Shastri Paradakara, *Astangahrdya*, Chaukhambha Surabharati Prakashan, Varanasi, 2008.
 - a) Sutrasthana 15/46; b) Sutrasthana 15/46.

Kottakkal Ayurveda Series: 110



AYURVEDA IN 21ST CENTURY

SEMINAR PAPERS - 2011

Price: ₹ 60/-

Over the centuries Ayurvedic concept approaches and therapies have changed gradually from its prototypes. Apart from the physicians and patients, the health-care delivery system has changed remarkably over the last few decades. The locus of care has shifted from home to village

clinic, village clinic to local hospital and from local hospital to specialty hospital. Similarly solo general practitioners are replaced by team of specialists. These changes are reflected in Ayurvedic clinical practice too. This book contains papers presented at the 49th Ayurveda Seminar on 'Ayurveda in 21st Century', held at Kozhikode on October 2011.

EFFICACY OF VAITARAŅAVASTI AND VŖṢĀDI VASTI IN GRDHRASI W.S.R TO SCIATICA - A COMPARATIVE CLINICAL STUDY

Sanjay M.*

Abstract: Gṛḍhrasi is a madhyamarogamārga vyādhi, in which the patient's walking style simulates to that of a 'gṛḍhra' (vulture) due to the nature of pain. The vyaktasthāna of gṛḍhrasi is adhakāya (starting from kaṭi region ūru, jānu, jaṅgha and pāda), which is also the sthāna of vāyu; so vasti is the best treatment option. In this context, a clinical study was conducted on 30 patients suffering from gṛḍhrasi to assess the efficacy of Vaitaraṇavasti and Vṛṣādi vasti. In the samprāpti of gṛḍhrasi rasa, rakta, māmsa, asthi and majja dhātus are affected. To manage the vitiated doṣas that are situated in asthi and majja dhātu, ācāryas have advocated nine to ten anuvāsanavasti. Hence, kālavasti schedule were selected for the study. The result found to be encouraging.

Introduction

As with the advancement of busy, professional and social life; improper sitting posture in offices, factories, continuous and over-exertion, jerking movements during travelling and sports - all these factors create undue pressure to the spinal cord and play an important role in producing low backache and sciatica. Sciatica, in which neuralgia along the course of sciatic nerve often produces pain, burning sensation, numbness, tingling sensation, radiating from the lower back and upper buttock down the back of the thigh, calf and to the foot. Many of the clinical features of grdhrasi resemble to that of sciatica.

Gṛdhrasi is a rujapradhāna nānātmaja vātavyādhi. The vyaktasthāna of gṛdhrasi is adhakāya.^{1,2} The cardinal signs and symptoms of gṛdhrasi are stambha, ruk, toda and spandana

starting first in sphik and radiating to kaṭī, pṛṣṭha, ūru, jānu, jaṅgha and pāda and sakthi utkṣepa and nigraha. In kaphānubandhagṛdhrasi tandra, gaurava and arocaka are also present.

Vṛṣādi vastiyoga and Vaitaraṇavastiyoga were selected for the study. In Nirūhakramacikitsita adhyāya of Suśrutasamhita, Vṛṣādi vastiyoga is indicated in gṛdhrasi, whereas in Vastikarmādhikāra of Vaṅgasenasamhita, Vaitaraṇavasti is indicated. In the samprāpti of gṛdhrasi rasa, rakta, māmsa, medas, asthi and majja (rasāyani, sira, snāyu, kaṇḍara) dhātu are affected. To manage the vitiated doṣas that are situated in asthi and majja dhātu, ācāryas have advocated giving nine to ten anuvāsanavasti. Hence, kālavasti schedule were selected for the study. In this study an attempt has been made to evaluate the efficacy of Vaṅgasenokta Vaitaraṇa vasti and Suśrutokta Vrsādi vasti in gṛdhrasi and

*NuAyurveda Clinic, Delhi NCR [B15, Ground Floor, Shivalik Road, Malviya Nagar, NewDelhi -110070]

kinds of pain are the result of vitiated vāta. Here, vātavahanāḍi gets obstructed by the vitiated kapha and dhātu. So, the involvement of vāta and kapha doṣa along with rasa, rakta and majja dhātus was present here. Vṛṣādi vasti being kapha-vāta śāmaka showed more effect on this parameter.

Walking time (WT):- Pain is the main reason for increase in walking time in patients. It is known that gati is the karma of vyānavāyu. Here, vyānavāyukarmakṣaya is present thus increases the walking time. Vaitaraṇavasti pacifies the vitiated vāta and hence found to be more relief on this parameter.

Oswestry Disability Index Scoring:- Even though the comparative efficacy of Group A with Group B was statistically not significant, the percentage relief was more in Group A.

Spinal movements:- Ākuñcana, prasāraṇa, vyāvartana, utkṣepa and apakṣepa are the functions of vyānavāyu. Here, vāyu gets obstructed at rasa, māmsa and majja dhātus thereby restricting the movements. On administration, vastidravya by virtue of their rasa, guṇa and vīrya clears the obstruction in these dhātus thereby facilitates the normal movement of vāta.

Conclusion

The comparative study showed that both Vaitaraṇavasti and Vṛṣādi vasti are effective in the management of gṛḍhrasi. Comparatively, even though the effect of the therapy provided

statistically not significant results in both the group, the percentage of relief was more in Vṛṣādi vasti group.

Acknowledgements:

The author is thankful to Dr. A.I. Sanakal (guide and HOD Panchakarma), Dr. Shrivatsa. M. Navalur, Dr. A.S. Prashanth and Dr. S. Gopakumar for their valuable suggestions, inspiring spirits and close involvement with this work that helped to accelerate and complete the work. Also, to all those who backed with support till completion of the work.

References:

- Vaidya Jadavaji Trikamji, Carakasamhita, 5th Edn., Chaukhambha Surbharati, Varanasi, 2001
- Pt. Harisastri Sadasiva Paradakara Vaidya, *Astangahrdaya*, 8th Edn., Chaukhambha Surbharati, Varanasi, 1998.
- Nirmal Saxena, Vangasenasamhita or Cikitsasarasamhita, Vastiadhikara, Chaukhamba Sanskrit Series Office, Varanasi, 2004.
- 4. Vaidya Jadavaji Trikamji, *Susrutasamhita*, Chaukhambha Surbharati, Varanasi, 1997.
- 5. Davidson, M. and Keating, J. (2001) "A comparison of five low back disability questionnaires: reliability and responsiveness", Physical Therapy 2002; 82:8-24. http://www.rehab.msu.edu/_files/_docs/Oswestry_Low_Back_Disability.pdf

CONCEPT AND APPLICATION OF SATVASĀRA PARĪKṢA - A NEUROPHYSIOLOGICAL REVIEW

Aswathy V. and Abhilash M.*

Abstract: Satvasāra represents the psychological health of an individual. It is important both in diagnostic and treatment aspects. This article aims to explore literary hints regarding satvasāra and its application. To elucidate the concept of satvasāra, āyurvedic classics were extensively reviewed. Different aspects regarding each concept were analyzed and discussion was carried out to study the link between satvasāra qualities with respect to areas of brain, need of satvasāra parīkṣa, its different methods, etc.

Introduction

Āyurveda need researches to validate its fundamental concepts for global acceptance. It is important to redefine the āyurvedic concepts so that it could be easily explained and practiced without losing its essence. Satvasāra is one such important qualitative attribute in āyurveda. Satva represents manas and satvasāra signifies excellence in the functioning of manas. Sāraparīkṣa is one among daśavidhaparīkṣa as per ācārya Caraka.

Materials and method

Literary review was carried out and references on satvasāra were collected from āyurvedic classics. Literature reviewed included bṛhattrayī, articles, thesis, journals and authoritative databases as primary sources and magazines as secondary sources. Etymology of the needed terms was taken from Amarakośa. Each attribute was individually studied for its synonyms, different meanings, and its

application in various situations across the classics to find out the exact meaning and depth of each attribute. Discussions were carried out with experts. Different aspects regarding each variables of satvasāra were analyzed and experts helped to clarify the variables.

Results

Ācārya Caraka has explained satvasāralakṣaṇa along with sāraparīkṣa in Vimānasthāna chapter 8. This was taken as the main reference. Ācārya has listed 13 qualities for a person with pravarasatvasāra as follows:

1. Smrtimanta

Smṛti is derived from the root word 'smṛ smṛtau'. Carakasamhita defines smṛti as recollection of objects which are seen, heard and otherwise perceived. The process of smṛti is an introspective function of the mind, which does not require the functional need of sense organs, at the time of recollection. Therefore the main pathways and organs in connection

^{*}Department of Kriyasareera, Govt. Ayurveda College, Pariyaram, Kannur, Kerala

is different. Satvabala is due to permutation of triguṇas and is associated with mānasaprakṛti of the person where as satvasāra is influenced by the śarīraprakṛti and mānasaprakṛti.

References:

- Amarsimha, Amarkosa. 2nd Edn., Nirnaya Sagar Press Bombay, 1944.
- Arthur C. Guyton and John E. Hall, Text book of Medical Physiology. 11th Edn.,. Elsevier, New Delhi, 2006
- Vaidya Jadavji Trivikramji, Carakasamhita, Chaukhamba Krishnadas Acadamy Varanasi,
- 4. Agnives, C.R., *Ayurvediya Padartha Vijnjanam*, 1st Edn., Publication Department, Harisree Hospital, Thrissur
- Bhaskara Govinda Ghanekara, Vaidikeeya Subhashita Sahityam. Chaukhambha Sanskrit Bhawan, Varanasi, 2005
- 6. Jeffrey M. Spielberg, Jennifer L. Stewart,

- Rebecca L. Levin, Gregory A. Miller, and Wendy Heller, "Prefrontal Cortex, Emotion, and Approach/Withdrawal Motivation", *Soc Personal Psychol Compass*. 2008 Jan 1; 2(1): 135–153. Available from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2889703/
- Dr Manoj Sankaranarayana, Roga Vijnana & Vikruti Vijnana. 1st Edn., Vol.1, Chaukhambha Sanskrit Series Office, Varanasi, 2007.
- Vaidya Jadavji Trivikramji ācārya, Susrutasamhita, 7th Edn., Chaukhambha Orientalia, Varanasi, 2002
- 9. Astangahrdaya (with Sarvangasundara Commentary of Arunadutta and Ayurvedarasayana of Hemadri), Chaukambha Sanskrit Samsthan, Varanasi, 2009.
- Monier M. Williams, Sanskrit English Dictionary 1st Edn., Oxford. Clarendon Press, 1951