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CANCER CARE IN AYURVEDA - A HOPE TO FUTURE MEDICINE

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Metabolic Syndrome

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Metabolic Syndrome (Modern & Ayurvedic view)



Dr. Prakash Urmaliya
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AYURVED SANSKRIT HINDI PUSTAK BHANDAR
(Oriental Publishers & Booksellers)

झालानियों का रास्ता, किशनपोल बाजार, जयपुर- 302001

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Review Article

www.ijrap.net (ISSN:2229-3566)



A COMPREHENSIVE REVIEW OF KARNA ROGA NIDANA AND THEIR IMPACT ON PATHOGENESIS OF EAR DISORDERS

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DOI: 10.7897/2277-4343.1205149

ABSTRACT

Ear disorders have a wide range of sharing in a load of global illnesses, and their incidences with a continuous hike and difficulty can be contributed to the obscure understanding of the causative agents, including their action mechanisms in the generation of ear pathology. Karna roga has been well theorized in all the authoritative textbooks. Nidana is the first component of 'Trisutra' and is not only the triggering factor but also the initial diagnostic tool, which help learn the course of disease progression. Relevant content of the selected topic was obtained from classics, journals and online search portals for a judicious review. The Acharya in Shalakya has provided an ample account of Karna roga nidana, including their count, causative factors and pathogenesis, which can be compared with their recent counterparts and interpreted in modern ways for a clearer perspective of ear disorders.

Keywords: Karna roga nidana, Karna kshweda, Ear disorders, Shalakya

INTRODUCTION

The rising prevalence of ear disorders worldwide can be contributed to the current stress-prone lifestyle, pollution and issues like hygiene, ignorance, and poor infrastructure further add to the woes of developing countries. Otitis Media related hearing impairment has a prevalence of 30.82 per ten-thousand¹. By 2050, nearly 2.5 billion people are projected to have some degree of hearing loss². It is estimated that there are more than 500,000 people affected by Meniere's disease in India³. Ear Polyps, Tinnitus, Benign Paroxysmal Positional Vertigo, etc., are some other major disorders that gradually turn into hearing and neurological disabilities. Despite expensive diagnostic and medical advancements, the exact triggering factors and aetiology have not been determined yet. Hence thorough research can be conducted linking the time-tested concepts of Karna roga with their contemporary ear disorders.

ANALYSIS OF KARNA ROGA NIDANA

Classical texts have stated Samanya Nidana for all the Karna roga along with some specific Nidana for Karna kshweda roga.

Samanya Nidana⁴

Avshyaya

As perceived by Pratyaksha pramana, Avshyaya is Sheeta and Apya dravya so it causes vitiation of Vata-Kapha and stops the release of Ushma, thus producing Roga via Dosha imbalance. It is one of the Rogotpadaka hetu of Shiroroga⁵ and Karna roga is included under Shiroroga by Acharya Charaka⁶.

Avshyaya is generally considered as humidity. High levels of humidity cause trapping of pollutants within moisture for longer periods worsening air pollution⁷. This Dooshita Vata can produce a variety of disorders; high humidity is thought to trigger chemical and electrical changes in the brain and irritate nerves⁸.

In a recent study, high humidity was found to be positively associated with aural fullness, hearing loss, and increased odds of episodes of Meniere's disease⁹.

Jalakrida

Shira is a seat of Shleshma¹⁰, this Tarpaka kapha does Anugraha on Indriyas to perform their natural functions and protect them. Jaliya Dravya and Shleshma have common Gunas like Snigdha, Sheeta, Picchila^{11, 12} whereas Jaliya dravya and Vata have Sheeta guna in common¹³ also Jaliya Dravya and Pitta have Drava guna in common¹⁴, this Guna samanyatva results in Dosha vridhhi and Rogotpatti.

If one swims in dirty water it may lead to external and middle ear infections, whereas barotrauma during diving may perpetuate internal ear injury and this damaged vestibulocochlear system produces vertigo, hearing loss, and tinnitus¹⁵.

Karnakandu

When Ati-sanchaya of Kapha occurs in Karna srotasa, it causes Kandu¹⁶; since Kapha has Sthira and Manda Guna, the Khamala piles up causing Vata avrodha and roga. A non-diligent procedure of aural toileting and excess cleaning of ears creates a vicious cycle of increased cerumen production causing ear-fullness, swelling, and tinnitus. Untreated otitis externa progresses into malignant otitis externa, osteomyelitis of temporal bone¹⁷ involving cranial nerves¹⁸ and several other neurological complications¹⁹.

Shastra Mithya Yoga

Shastra mithya yoga often results in Abhigata which is one of the Hetu for Rakta dushti²⁰ now if the Stambhana of Dushta rakta occurs it causes Buddhi-Indriya Uprodha²¹ and Indriyagata Vyadhi. In the case of Rakta kshaya all other Dhatus also undergo Kshaya and due to lack of nourishment Vyadhi develops along with Vata kopana²². To prevent the chances of Abhigata the Acharya have mentioned ear-specific instruments like Tala



International Journal of Multidisciplinary Research and Growth Evaluation

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Ayush Kumar
Publisher

Email: alljournal.paper@gmail.com



Website: www.allmultidisciplinaryjournal.com

ISSN 2454-2229

Impact Factor: 6.129

World Journal of Pharmaceutical and Life Sciences

Date: 01/04/2021.

Certificate

Publication
Certificate

This is to certify that Article entitled **"AYURVEDIC TREATMENT MODALITIES OF SHEETPITTA, UDARDA AND KOTHA: A CLASSICAL REVIEW"** Manuscript no. WJPLS/3446/7/2021, **Dr. Pooja Soni***, **Dr. Rita Singh** and **Dr. Sanjay Srivastava**, has been published in *World Journal of Pharmaceutical and Life Sciences*, (Volume 7, Issue 4) after getting reviewed by three reviewers.

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Review Article

A CRITICAL REVIEW ON ASHVATTHA LEAVES (*FICUS RELIGIOSA* LINN.): AN AYURVEDIC PERSPECTIVE AND CURRENT PRACTICE

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ABSTRACT

Ficus religiosa is large deciduous tree also known as the *Bodhi vraksha*, often planted near temples or religious places. In Indian subcontinent it is also said that this is the mythical 'World Tree' or the 'Tree of Life'. Through the ancient times it is widely being used to treatment of various diseases like constipation, dysentery, skin diseases, heart diseases, snakebite. But this knowledge still scattered and unelaborated. Various pharmacological studies have been done to explore the chemical constitution of different parts of *Ashvattha*. They found campesterol, stigmasterol, isofucosterol, α -amyrin, lupeol and different kind of Amino acids etc especially in leaf. various Ayurvedic texts describe about *Ashvattha* with their aspect. *Ashvattha* kept in Ayurvedic classics in different *Ganas/ Mahakashyas /Vargas* like *Kaidav Nighantu* kept in *Ausadhi Varga Madanpal Nighantu-Vatadi Varga, Raj Nighantu- Amrutadi Varga* etc. Numbers of Ayurvedic studies are available to explore different properties of *Ashvattha*. It has *Guru, Ruksha, Seet, Kashya* properties, *Sita, Pitta-Kaphahara, Vranaropak* property. It is also important constituent of various Ayurvedic preparations like *Shankha Vati, Chandraprabha Vati, Kaminivindravan Rasa*. Recent research also shows Hypoglycemic activity, Hypolipidemic activity, anti-microbial and anti-viral activities, wound healing activity, anti- oxidant, anti-convulsant activity, immunomodulatory activity, anti-ulcer activity, anti-cancer activity, anti-inflammatory and analgesic activities, anti-asthmatic activity, anti-acetylcholinesterase activity. These details are available in scattered way in different places. In this review article maximum possible information reviewed and collectively presented in concise form. This may be helps full to explore the holistic approach of the *Ashvattha*.

KEYWORDS: *Ashvattha, Ficus Religiosa*.

INTRODUCTION

Ficus is a big tropical, evergreen tree. There are more than 800 species found of *Ficus*. Maximum parts like bark, root, fruits, latex, and leaves are frequently used for treatment of various illnesses. These species are richest source of polyphenol compounds, flavonoids. These compound having strong antioxidant property to prevent various oxidative stress related diseases such as atherosclerosis, diabetes and dyslipidaemia. Through the ancient times it is widely being used to treatment of various diseases like *Swarsh* (juice) of leaf has been used for the treatment of cough, asthma, sexual disorders, hematuria, pain in teeth and ears, headache, eye troubles, gastric problems and scabies etc., decoction of leaf has been used as an analgesic for toothache, stem bark is used in gonorrhoea, bleeding, diabetes, diarrhoea, fracture, antiseptic, astringent etc^[1].

AIM AND OBJECTIVE

To explore holistic Knowledge about *Ficus religiosa* Linn. tree (*Ashvattha*) with special reference to leave

MATERIAL AND METHOD

- The Ayurvedic literature related to *Ashvattha patra* was studied from various sources like *Brihatrayee, Laghu Trayee and Nighantus* etc.
- The modern literature related to phytochemical composition of *Ashvattha Patra* will be studied from various texts.
- Materials from electronic media and journals related to the subject were reviewed.

Synonyms**According to Madanpal Nighantu**

Pippala, Syamala, Ksirivrksha, Gajasana, Harivasa, Caladala, Mangalya and *Bodipidae* are the synonyms for *Ashvattha*.

According to Saraswati Nighantu

Magalya, Keshvasa, Chetya Vraksha, Pavitrak, Ashvattha, Bodi Vraksha, Deerdhayau, Chal Patro,

Gajasana, Pippal, Ksheer vraksh, Shyamla, Bahuparnika.

According to Dhanvantari Nighantu

Keshvasa, Chalpatra, Pavitrak, Mangalya, Shyamla, Ashvattha, Bodhivraksha, Gajasana, Shriman, Ksheerdrumo, Vipra, Shubhad, Shyamlachhad, Sevyā, Satya, Suchidrum, Chetya drum, Dhramavraksha



Fig No. 10 *Ficus religiosa*

Place of Ashvattha in different classics- (Classical Categorization)

Table 2: Ashvattha kept in Classics in Different Ganas / Mahakashyas / Vargas

Sr.No.	Nighantu/ Samhitas	Varga/Gana/ Mahakashya
1.	Charaka Samhita	Mutrasamgrahaniya Mahakashyam, Kasaya skandha
2.	Sushruta Samhita	Nyagrodhaadi Gana
3.	Vagbhata	Nyagrodhadi Gana
4.	Bhav Prakash Nighanu	Panchavalkala, Ksheeri-Vruksha, Vatadi Varga
5.	Astang Nighantu	Nyogrodhadi Varga
6.	Kaidav Nighantu	Ausadhi Varga
7.	Madanpal Nighantu	Vatadi Varga
8.	Raj Nighantu	Amrutadi Varga
9.	Saraswati Nighantu	Mahavraksha Varga
10.	Dhanvantari Nighantu	Amradi Varga

Properties of Ashvattha**According to Bhava Prakasha**

Ashvattha is *Guru, Ruksha, Seet, Kashya, Varnya* and *Yonivisodhak* in properties. Not easily digestible, pacify *Pitta Vikar, Kapha Vikar*, wound and *Rakta Vikar*.

According to Kaidev Nighantu

Ashvattha is *Guru, Ruksha, Seet, Kashya, Varnya* and *Yonivisodhak* in properties. Not easily digestible, pacify *Pitta Vikar, Kapha Vikar*, wound and *Rakta Vikar*.

According to Madan Pal Nighantu^[2]

Ashvattha is *Duhkhasumaka, Sita, Pitta-kaphahara, Vranaropana* and *Raktadosahan* in nature.

According to Raj Nighantu

Ashvattha is sweet, astringent, cooling and it pacify *kapha* and *Pitta*. It controls the ailments arising out of *rakta dosa* and also burning syndrome. Its ripe fruit relieves from the ailments of vaginal passage, very quickly.

According to Dhanvantari Nighantu

Ashvattha has same properties as *Vata (ficus bengalensis)*. *Sheet Virya, Kashya, Stambhan, Rukshan, pacified Trashna, Vaman, Murchha*, and specially *Raktapitta*, and *Kapha Dosa*.

Botanical Description

A large tree, frequently epiphytal, leaves leathery, broadly ovate, entire, undulate, tip narrowed into a linear, tail like point, petiolate, fig

axillary, sessile, in pairs, globose, slightly vertically flattened, 12mm in diam., dark purple when ripe.

F. religiosa is a large deciduous tree without aerial roots.

Bark is grey with brownish specks, smooth, exfoliating in irregular rounded flakes.

Leaves- New leaf is red-pinkish in colour, after some time its colour change into deep green. Adult leaf is heart-shaped, shiny about 12 to 18cm long attached to long flexible stalks, each leaves have 6-8 pairs of side-veins with fine network of veins like strainer.

Flowers- The small red flowers are axillary sessile, unisexual and appear in February.

Fruits are circular in shape called as Figs. Raw fruits are green in colour during summer ripened fruits turn black in colour in rainy season.^[3]

Distribution

It is commonly found in wild or cultivated nearly throughout India in sub - Himalayan forests, districts of Bihar and Orissa, Upper Gangetic Plain, West Bengal and Central India. . It is native from India to Southeast Asia which grows up to 5000 ft. with the trunk.

Parts used: Stem bark, fruit, leaf -bud, latex, root, leaves.

Pharmacodynamics (Rasa Panchaka)

Rasa: Kashaaya, Madhur

Guna: Guru, Ruksha

Veerya: Shita

Vipaaka: Katu

Doshakarma: Kapha-Pitta shaamaka

Properties

Rogaghnata: It is indicated in various ailments like- *Vedana, Shotha, Raktasrava, Vrana, Vranashotha, Bhagandara, Mukhapaka, Vatarakta, Raktavikara, Raktapitta, Udarashoola.*

Karma: (Therapeutic action of Ashvattha) It is *Vranaropana, Vedanasthapana, Shothahara, Raktashodhaka, Rakta pitta shamaka, Stambhana, Kaphaghna, Mridurechana.*

Actions and Uses:^[4]

The bark is astringent, sweet and cooling. It is used in treatment of gonorrhoea, diarrhoea, dysentery, haemorrhoids and gastric ulcers. The paste of powdered bark is good absorbent for inflammatory swellings and useful in burns. Leaves and young shoots are prescribed in wounds and skin diseases. The latex is also useful in inflammation.

Chemical Constituents:^[5]

B- sitosteryl - D - glucoside, (bark); n - octacosanol, methyloleanolate, lanosterol, stigmasterol,

bergapten, bergaptol and tannin.(stem bark); protein and amino acids (Leaves).

Constituents of the Leaves

Leaves yield campesterol, stigmasterol, isofucosterol, α -amyrin, lupeol, tannic acid, arginine, serine, aspartic acid, glycine, threonine, alanine, proline, tryptophan, tryosine, methionine, valine, isoleucine, leucine, nonacosane, n-hentricontanen, hexa-cosanol and n-octacosan.^[6,7,8,9]

Leaf Proteins- Leaf protein concentrates of *Ficus religiosa* has nitrogen contents about 12.25%. By the Liquid Paper Chromatography (LPC) of *Ficus religiosa* has found to be a condensation polymer of L-cystine, L-lysine, L-arginine, DL serine, DL-aspartic acid, glycine, DL threonine, D and L-alanine, L-proline tryptophan, L-tyrosine, DL-methionine, DL-valine, isoleucine and L-leucine.^[10]

Table 3: Nutritional composition of leaves of *Ficus religiosa*^[11-14]

Contain Proximate composition (per 100g)	
Moisture content	50.50gm
Carbohydrates	19.20gm
Proteins	13.55gm
Fats	2.5 g
Crude fibre	26.1g
Ash content	12.9 g
Calcium	1.67 mg
Iron	0.18mg
Copper	0.105 mg
Manganese	0.355 mg
Bark Zinc	0.09 mg

Pharmacological Activities

Nagwa E. Awad, *et al.* in the study; Assessment of *Ficus* spp. in Improving the Metabolic Syndrome Secondary to Hypercholesterolemia in Rats Fed with High-Fat Diet; fed the rats with high-fat-diet and orally administered with cholesterol (30 mg/0.3ml 0.7% tween/animal) five times/week for nine consecutive weeks. It has been recorded a significant decrease ($p < 0.001$) in hepatic glucose, glycogen, total protein, and vitamin E and C levels. Orally treatment with leaves extract (500mg/kg body weight) at the same time of cholesterol induction and with the same duration revealed an improvement of the selected parameters by variable degree. *F. religiosa* recorded the most potent effect.^[15]

Anti-microbial activity: Choudhary GP et al in 2006 found in their study, ethanolic extracts of *F. religiosa* (leaves) shows antimicrobial activity. There was a studied using the agar well diffusion method against

four bacteria: *Bacillus subtilis*, *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa* and against two fungi: *Candida albicans* and *Aspergillus niger* and found that 25mg/ml of the extract was active against all bacterial strains and comparatively less active against two fungi.^[16]

Anti-inflammatory: Gulecha VS et al. in 2010 found The leaves extract of *F. religiosa* was showed the anti-inflammatory activity in albino rats against carrageenan induced pedal oedema.^[17]

Antioxidant : Charde RM et. al. In 2010 found in his study, Ethanolic extract of leaves of *F. religiosa* shows antioxidant activity in different dilutions.^[18]

Wound-Healing: Hydroalcoholic extract of *F. religiosa* leaves applied on wounded Wistar albino

rats result in high rate of wound contraction, decrease in the period for epithelialisation, high skin breaking strength leading to wound healing.^[19]

Anti-ulcer: Ethanolic extract of leaves of *F. religiosa* was given to rats at a dose level 250mg/kg and 500mg/kg. It is found that significantly decreased the volume of gastric acid secretions, free acidity and total acidity and ulcer index in aspirin induced ulcer.^[20]

Laxative: Aqueous extract of *F. religiosa* leaves extract showed significant laxative activity when extract was administrated to albino wistar rats at different doses (100, 200, 400mg/kg, p.o.).^[21]

Table 4: Pharmacological activities: Previous Work

Activity	Research information
Hypoglycemic activity ^[22]	<ul style="list-style-type: none"> Mamata Pochhi et. al. in the year 2017 evaluate Hypoglycemic and antihyperlipidemic effect of aqueous leaves extract of <i>Ficus religiosa</i> in alloxan-induced diabetic rats, and found The aqueous leaves extract of <i>F. religiosa</i> induced significant improvement in glucose, serum lipids, lipoproteins concentration and lipid metabolizing enzymes activity (Lipase, HMG CoA reductase and LCAT)
Hypolipidemic activity ^[23]	<ul style="list-style-type: none"> Manal A Hamed in 2011 evaluate the Beneficial effect of <i>Ficus religiosa</i> Linn. on high-fat-diet-induced hypercholesterolemia rats. And found <i>Ficus religiosa</i> Linn. has hypolipidaemic and antioxidant properties
Antimicrobial and antiviral activities:	<ul style="list-style-type: none"> Aqueous extract of <i>F. religiosa</i> showed high antimicrobial activity against pathogenic organism; <i>B. subtilis</i>, <i>P. aeruginosa</i> and <i>B. subtilis</i> and <i>P. aeruginosa</i>.^[24]
Wound healing activity ^[25]	<ul style="list-style-type: none"> Leaf extract of <i>F. religiosa</i> (emulsifying ointment at a concentration of 5% and 10%) applied topically showed significant decrease in the period of epithelization and in wound contraction (50%). A significant increase in the breaking strength was observed in an incision wound model when compared to the control. The result suggests that leaf extract of <i>F. religiosa</i> (both 5% and 10%) applied topically possess dose-dependent wound-healing activity.
Anti-ulcer activity ^[26]	<ul style="list-style-type: none"> The hydroalcoholic extract of leaves of <i>Ficus religiosa</i> also exhibited antiulcer activity. The activity was evaluated against pylorus ligation-induced ulcers, ethanol-induced ulcers and aspirin-Induced ulcers. Determination of antiulcer effect was based upon ulcer index and oxidative stress.
Antiarthritic activity ^[27]	<ul style="list-style-type: none"> Ethanolic extract of <i>Ficus religiosa</i> leaves in Freund's complete adjuvant (FCA) induced arthritis in rat showed a significant antiarthritic activity
Antibacterial ^[28]	<ul style="list-style-type: none"> The chloroform extract of <i>F. religiosa</i> possessed a broad spectrum of antibacterial activity. The methanolic extracts possessed moderate antibacterial activity against a few bacterial strains. The aqueous extract shows very less antibacterial activity. The antibacterial activity against both Gram-positive and Gram-negative bacteria was in the order of chloroform > methanol >

	aqueous extract of <i>F. religiosa</i> <ul style="list-style-type: none"> The extracts of <i>F. religiosa</i> were found to be active against <i>Aspergillus niger</i> and <i>Penicillium notatum</i>
Antibacterial effect [29-31]	<ul style="list-style-type: none"> Aqueous and ethanolic extracts of <i>F. religiosa</i> leaves showed antibacterial effect against <i>Staphylococcus aureus</i>, <i>Salmonella paratyphi</i>, <i>Shigella dysenteriae</i>, <i>S. typhimurium</i>, <i>Pseudomonas aeruginosa</i>, <i>Bacillus subtilis</i>, <i>S. aureus</i>, <i>Escherichia coli</i>, <i>S. typhi</i>.
antifungal effect[32]	<ul style="list-style-type: none"> The ethanolic extract of leaves showed antifungal effect against <i>Candida albicans</i>.
As a Therapeutic agent for the treatment of urinary calculi or their prevention. [33]	<ul style="list-style-type: none"> Higher concentration of the leaf extracts of <i>F. religiosa</i> is highly responsible for the inhibition of Calcium Hydrogen Phosphate Dihydrate (CHPD) urinary crystals growth.
antioxidant[34]	<ul style="list-style-type: none"> The ethanolic extract of leaves of <i>Ficus religiosa</i> was evaluated for antioxidant (DPPH), wound healing (incision, excision, and histopathological and dead space wound model) and anti-inflammatory (Carageenan induced paw odema) activity. The tested extract of different dilutions in range 200 µg/ml to 1000 µg/ml shows antioxidant activity in range of 6.34% to 13.35%
anticonvulsant effect[35]	<ul style="list-style-type: none"> The anticonvulsant effect of the extract obtained from the leaves of peepal was evaluated against PTZ (60mg/kg, i.p) induced convulsion in albino rats. The study revealed 80 to 100 % protection against PTZ induced convulsions when given 30-60 minutes prior to induced convulsion, respectively.
Antioxidative Activity	<ul style="list-style-type: none"> Sahoo Rashmi Rekha, in the year 2012 reported that <i>Ficus religiosa</i> leaf has interesting antioxidative properties and symbolize a potential source of medicine for the treatment of inflammatory activity and wound healing properties. [36]
Larvicidal and antibacterial activity [37]	<ul style="list-style-type: none"> Rapid biological synthesis of ZnO NPs and TiO₂ NPs using aqueous leaf extract of <i>F. religiosa</i> would be effective potential larvicides for mosquito control as well as antimicrobial agents with eco-friendly approach

Traditional Uses

Ashvattha have several therapeutic uses in folk medicine viz.:

Leaf Juice- Freshly prepared juice have laxative property it has been used for the treatment of asthma, cough, sexual disorders, haematuria, earache and toothache, migraine, eye troubles, gastric problems and scabies.

Decoction- Leaves decoction has been used for toothache.

Dried Powder- Leafs have laxative property and dried powder has been used for constipation also.

Traditionally the leaves of the Peepal are used in the treatment of heart diseases.[38] It works as tonic. It relieves in feverish feeling and are also useful in arresting secretion or bleeding.

Peepal leaves smeared with ghee, warmed over a fire and bandaged over the inflamed part (mumps or boil) to get relieve. If there is any pus

formation, it will burst, and if it is in preliminary stages, the growth will automatically subside.

DISCUSSION

Ashvattha is easily available dynamic tree. Although it has multiple qualities and these are associated with each other's but unfortunately these knowledge is scattered in different places. Like Roy K et. al. in 2009 found wound healing property and Bhavprakash and Kaidev nighantu also maintain same property.

CONCLUSION

The present review on *Ashvattha* may be useful to know about the different formulations. *Ficus religiosa* has lots of medicinal properties, various animal studies indicate its potential effect as anti-inflammatory hypoglycaemic, hypolipidemic, antioxidant, immunomodulatory properties. Various Ayurvedic text describe *Ashvattha* has *Guru*, *Ruksha*, *Seet*, *Kashya* properties. By this way we can use *Ashvattha* in the treatment of different diseases.

REFERENCES

1. Y D Mamidiseti, N Yammada, H K Siddamsetty, V Bakshi and N Boggula. Phytochemical and analgesic, anti-inflammatory screening of methanolic extract of *Ficus religiosa* fruits: An in vivo design. *The Pharma Innovation Journal* 2018; 7(6): 69-74
2. Sastry J.L. Editor. MadanPal Nighantu. Varanasi Chaukhambha Orientalia 2017; Chapter 5, ver 3 P 492.
3. C.Orwa, A.Mutua, R.Kindt, R.Jamnadas, S.Anthony, Agroforestry Database 4.0, *Ficus religiosa*, 1-5, 2009.
4. Prof. Sharma P.C. et. al. Database on Medicinal Used in Ayurveda. Delhi CCRAS; 2005. Volume 3; p130.
5. Gupta Chitra, Sing Shipra. Taxonomy, phytochemical composition and pharmacological prospectus of *Ficus religiosa* linn. (Moraceae)- A review. *The Journal of Phytopharmacology* 2012; 1 (1) :57-70.
6. Panda SK, Panda NC and Sahue BK. Effect of tree leaf tannin on dry matter intake by goats. *Indian Vet J.* 1976; 60:660- 664.
7. Prasad S, Kalra N and Shukla Y. Hepatoprotective Effects of Lupeol and Mango Pulp Extract of Carcinogen Induced Alteration In Swiss Albino Mice. *Molecular Nutrition & Food Research.* 2007; 51(3):352- 9.
8. Suryawanshi K, Khakre S, Chourasia A, Chaurasiya PK, Pawar RS and Jhade D. Hepato-protective activity of stem bark extract of *Ficus Religiosa* Linn in Rat. *IJBR.* 2011; 8:466- 475.
9. B. Joseph, S.R. Justin. Phytopharmacological and Phytochemical Properties of three *Ficus Species*- an overview, *IJPBS* 2010; 1(4).
10. Verma RS and Bhatia SK. Chromatographic study of aminoacids of the leaf protein concentrates of *Ficus religiosa* Linn. and *Mimusopse elengi* Linn. *Indian J Hosp Pharm.* 1986; 23:231-233.
11. Wangkheirakpam SD, Laitonjam WS. Comparative study of leaves of *Ficus pomifera* wall, *Ficus hispida* Linn. And *Ficus religiosa* Linn. for the biochemical contents, minerals and trace elements. *Indian J Nat Prod Resour.* 2012; 3(2):184-188.
12. Azim A, Ghazanfar S, Latif A, Nadeem MA. Nutritional evaluation of some top fodder tree leaves and shrubs of district Chakwal, Pakistan in relation to ruminants requirements. *Pakistan J Nutr.* 2011; 10(1):54-59.
13. Rutuja RS, Shivsharan U, Shruti AM. *Ficus religiosa* (Peepal): A Phytochemical and Pharmacological Review. *Int J Pharm Chem Sci.* 2015; 4(3):360-370.
14. Sandeep, Ashwani Kumar et al. *Ficus religiosa*: A wholesome medicinal tree. *RJPP* 2018; 7(4): 32-37.
15. Nagwa E. Awad, Sanaa A. Ali, Manal A. Hamed, Ahmed A. Seida, Marwa M. Elbatanony. Assessment of *Ficus Spp.* in Improving the Metabolic Syndrome Secondary to Hypercholesterolemia in Rats Fed with High-Fat Diet: *IJPCR* April-June 2014; 6(2):165-173
16. Choudhary GP, Evaluation of ethanolic extract of *Ficus religiosa* bark on incision and excision wounds in rats. *Planta Indica* 2006; 2(3):17-19.
17. Gulecha VS, Sivakumar T, Mahajan MS, Khandare RA, Upasani CD. *Ficus Religiosa* and *Ficus Glomerata* Extracts Exhibits Anti-inflammatory Activity in the Rat Pharmacology online 1(2010): 324-331.
18. Charde RM, Dhongade HJ, Charde MS, Kasture AV. *Int J Pharm Sci Resear.* 2010; 1(5): 73- 82.
19. Roy K, Shivkumar H, Sarkar S. Wound healing potential of leaf extracts of *F. religiosa* on Wistar albino strain rats. *Int J Pharm Tech Research.* 2009; 1(3):506-508.
20. Kumar H, Srivastava SK, Rao CV, Yadav S. Anti-Ulcer Activity of *F. religiosa* L. Leaves on Experimental Animals. *IJPSSR* 2011; 11(2): 83-86
21. Singh D, Mukhija M, Sundriyal A, Mangla V. Evaluation of Laxative Activity of *Ficus Religiosa* Linn. (Moraceae) Leaves Aqueous Extract In Albino Wistar Rats. *WJPPS* 2013; 2(6): 5384-5395.
22. Pochhi, Mamata & Muddeshwar, MG. Hypoglycemic and antihyperlipidemic effect of aqueous leaves extract of *Ficus Religiosa* in alloxan induced diabetic rats: *AJMS Vol.* 2017 Mar 1; 8(2):50-55
23. Hamed MA. Beneficial effect of *Ficus religiosa* Linn. on high fat- induced hypercholesterolemia in rats. *Food Chem* 2011; 129:162-170
24. Preethi R., Devanathan V.V., Loganathan M., Antimicrobial and antioxidant efficacy of some medicinal plants against food borne pathogens. *Advances in Biological Research* 2010; 4 (2): 122-125.
25. Naira N, Rohini RM, Syed MB, Amit KD. Wound healing activity of the hydro alcoholic extract of *Ficus religiosa* leaves in rats. [last cited on 2010 Mar 7]; *Internet J Altern Med.* 2009 6:2-7. Available from:
26. Saha, Sarmistha & Goswami, Gagan. (2010). Study of anti ulcer activity of *Ficus religiosa* L. on experimentally induced gastric ulcers in rats.

- Asian Pacific Journal of Tropical Medicine. 3. 791-793. 10.1016/S1995-7645(10)60189-7.
27. Rathor et.al. Antiarthritic activity of ethanolic extract of ficus religiosa leaves in fca induced arthritis in rats. World Journal of Pharmaceutical Research. 2018; 7(2):778-789.
 28. Hemaiswara et al. Antimicrobial properties of three Indian medicinal plants. Egyptian Journal of Biology, 2009; 11: 52-57
 29. Valsaraj R, Pushpangadan P, Smitt UW, Adersen A, Nyman U J Ethnopharmacol. 1997 Oct; 58(2):75-83.
 30. Farrukh A, Iqbal A. Broad-spectrum antibacterial and antifungal properties of certain traditionally used Indian medicinal plant. *World J Microbiol Biotechnol.* 2003;19:653-7
 31. Mousa O, Vuorela P, Kiviranta J, Abdelwahab S, Hiltunen R, Vuorela H. Bioactivity of certain Egyptian Ficus species. J Ethnopharmacol. 1994;41:71-6.
 32. Farrukh A, Iqbal A. Broad-spectrum antibacterial and antifungal properties of certain traditionally used Indian medicinal plant. *World J Microbiol Biotechnol.* 2003;19:653-7.
 33. Baskaraboopathy A, Rajaram MG, Elizabeth AR, Eevera T, Jayakumar T (2017) An Aqueous Extract of the Leaves of Ficus religiosa Inhibits the Growth of Urinary Calcium Hydrogen Phosphate Dihydrate Crystals-An In-Vitro Study. J Altern Complement Integr Med 3: 041.
 34. Vinutha B, Prashanth D, Salma K, Sreeja SL, Pratiti D, Padmaja R, Radhika S, Amit A, Venkatesh warlu K, Deepak M. Screening of selected Indian medicinal plants for acetylcholinesterase inhibitory activity. Journal of Ethnopharmacology. 2007;109(2): 359-63.
 35. Amandeep Kaur, A. C. Rana, Vineeta Tiwari, Ramica Sharma and Sunil Kumar. Review on Ethanomedicinal and Pharmacological Properties of Ficus religiosa. Journal of Applied Pharmaceutical Science 01 (08); 2011: 06-11
 36. Sahoo, Rashmi Rekha, Antioxidant & antimicrobial efficacy of Ficus religiosa L. & Ficus benghalensis [dissertation] L.thesis@nitr may2012
 37. Namita soni et. al. Larvicidal and antibacterial activity of aqueous leaf extract of Peepal (*Ficus religiosa*) synthesized nanoparticles, Parasite Epidemiology and Control November 2020; 11:e00166
 38. Sunita Panchawat, Ficus religiosa Linn. (Peepal): A Phyto-Pharmacological Review: IJPCS 2012 Jan – Mar; Vol.1(1):p435-446.

Cite this article as:

Ashish Kumar Gupta, Shalini Gupta, Charu Bansal. A Critical Review on Ashvattha Leaves (*Ficus Religiosa* Linn.): An Ayurvedic Perspective and Current Practice. International Journal of Ayurveda and Pharma Research. 2021;9(6):62-68.

Source of support: Nil, Conflict of interest: None Declared

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Cystic Artery: Incidental Variation of Origin

Shalini Gupta^{1*}, Ashish Kumar Gupta², Rita Marwaha³, Nisha Bhalerao³

ABSTRACT

On the basis of origin, variation of cystic artery is commonly found. Commonly, cystic artery originates from the right hepatic artery and rare condition from celiac trunk. The position of the cystic artery possesses extraordinary importance for the surgeon during cholecystectomy, because the cystic artery is the primary structure to be clipped or tie up during cholecystectomy. In this study, during cadaveric dissection incidentally found rarest condition that cystic artery originating from celiac trunk. These anatomical findings are much important for surgical and radiological aspect and may be helpful for surgeons during the performance of surgeries involving hepatic and biliary apparatus.

Keywords: Calot's triangle, Celiac trunk, Origin of cystic artery, Right hepatic artery

Asian Pac. J. Health Sci., (2022); DOI: 10.21276/apjhs.2022.9.3.38

INTRODUCTION

The cystic artery is the foremost structure to be clipped or ligated during cholecystectomy so that position of the cystic artery possesses extraordinary importance for the surgeon during cholecystectomy surgery. During routine dissections of cadavers and during surgeries, the possibilities of occurrence of variation in the origin of cystic artery are commonly encountered. This variation is usually encountered at the level of origin, course, and relations to the biliary ducts. All these variation is the center of attraction for surgeons, radiologists, and anatomists and motivates to do study frequently.

The upper part of the cystic duct is supplied by cystic artery, and cystic artery usually derived from the right hepatic artery (RHA) to the right of common hepatic duct in Calot's triangle. Cystic artery passes downward and to the right behind the common hepatic or right hepatic duct and lies posterior-superior to the cystic duct. At the neck of the gallbladder, it divides into superficial and deep branches. The superficial branch is supply to peritoneal covered inferior surface and the deep branches ramify in the loose areolar tissue between the liver and the superior surface of the gallbladder.^[1]

Calot's triangle is a space bordered by the inferior surface of segment V of the liver superiorly, medially common hepatic duct and inferiorly by the cystic duct.^[2] This space contains the cystic artery with its variable disposition. The cystic artery is mentioned in relation to Calot's triangle. In 1891, J. F. Calot described Calot's triangle as a triangular area comprised the cystic duct, right hepatic duct, and lower edge of the liver.^[3] In 1981, possible variation in the region of Calot's triangle is described by Rocko *et al.* Hugh *et al.* suggested that Calot's triangle should be renamed as hepatobiliary triangle in 1992, the small cystic artery branches supplying the cystic duct being called Calot's arteries.^[4] The purpose of this study is to record and explore the variant anatomy of origin of cystic artery.

MATERIAL AND METHODS

Material

Instruments required for cadaver dissection:

1. Forceps- Artery, Blunt, Toothed, and allies
2. Scalpel
3. Scissors
4. Retractor

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How to cite this article: Gupta S, Gupta AK, Marwaha R, Bhalerao N. Cystic Artery: Incidental Variation of Origin. *Asian Pac. J. Health Sci.*, 2022;9(3):188-190.

Source of support: Nil.

Conflicts of interest: None.

Received: 01/12/2021 **Revised:** 07/02/2022 **Accepted:** 12/03/2022

Methods

1. The detailed description regarding anatomical variation of cystic artery's origin is reviewed by medical text books and journals.
2. Cadaveric dissection of abdomen has been performed as per "cunningham's manual of practical anatomy."

Case Study

Study has been performed in the Department of Anatomy of Pt. K. L. Sharma Govt. (Auto.) Ayurveda Collage and Institute Bhopal, Madhya Pradesh. During routine dissection of formalin fixed cadaver of a 56-years-old male, the subhepatic region of the abdomen was exposed by separating the lesser omentum with gross dissection followed by fine dissection to visualize the cystic artery. It was observed that the cystic artery is taking origin from celiac trunk (CT) instead of its normal origin from the RHA [Figure 1].

After arising from CT, it was passing posterior to common hepatic duct and anterior to cystic duct and in due course reaches the neck of gallbladder. The further course and branching pattern is normal. CT is very distinctly seen giving origin to splenic, left gastric, common hepatic artery, and cystic artery. Common hepatic artery continues toward right and gives origin to the

right gastric and gastroduodenal artery and, further, continues as hepatic artery proper. Further, course and branching of hepatic artery proper was as usual. The cystic artery certainly outside the limits of Calot's triangle [Figure 2].

DISCUSSION

Various numbers of variations in the origin of cystic artery described in texts books. The cystic artery originates from the RHA (63.9%), hepatic trunk (26.9%), left hepatic (5.5%), gastroduodenal artery

(2.6%), superior pancreaticoduodenal artery (0.3%), right gastric (0.1%), CT (0.3%), and superior mesenteric artery (0.8%).^[5] In 1994, Harris and Pellegrini showed that cystic artery was originating from the RHA (75%).^[6] Other sources found were left hepatic artery (6.2%), hepatic artery proper (2.2%), common hepatic artery (0.6%), and superior pancreaticoduodenal artery (0.2%). Double cystic artery in Calot's triangle existed in 5.55%.^[7] As described earlier, the cystic artery originates mostly from the RHA (63.9% of population) and rarely from CT (0.3 % of population). During cadaveric dissection was it observed that the cystic artery is taking origin from CT instead of its normal origin from the RHA. After arising from CT, it was passing posterior to common hepatic duct and anterior to cystic duct and in due course reaches the neck of gallbladder and the cystic artery certainly outside the limits of Calot's triangle. These uncommon findings are fore most important for surgeons during cholecystectomy surgery. Furthermore, findings are much important for radiologist in radiological aspect. Terminal segment of cystic artery is also important as it has to be manipulated first and is also susceptible to injury and hemorrhage during dissection of the peritoneal folds connecting the hepatoduodenal ligament to Hartmann's pouch of the gallbladder.^[8]

Table 1 shows variation in source of origin of the cystic artery according to different authors. Maximum authors described cystic artery originate from the RHA and only Daseler *et al.* mentioned that in 0.3% of population cystic artery originate from CT.

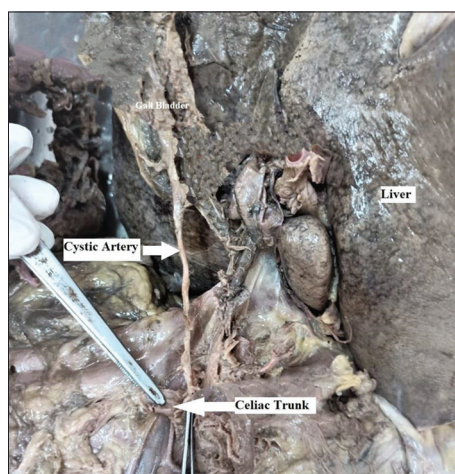


Figure 1: Origin of cystic artery from celiac trunk

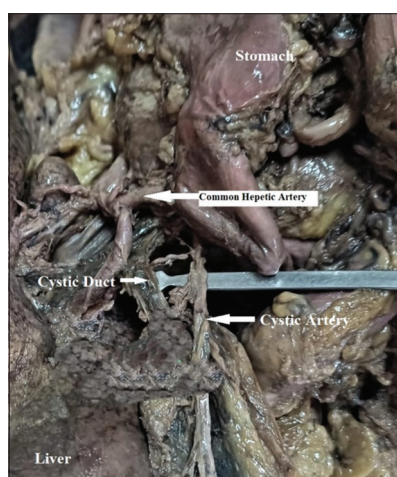


Figure 2: Routing of cystic artery

Embryological View

Variations in the cystic artery may be attributed to the developmental pattern of the biliary system. Liver and biliary apparatus develop from endodermal hepatic duct. The hepatic buds arise as an outgrowth from the ventral wall of terminal part of foregut.^[17] Foregut endodermal hepatic diverticulum usually carries a rich supply of vessels from the abdominal aorta and its initial branches. Most of the vessels raise from the abdominal aorta during development and degenerate residue in place the developed vascular system. This pattern of degeneration is highly variable, so the origin and branching pattern of the vessels to these organs also vary considerably (Hiatt *et al.*, 1994).^[18]

The first arteries to appear in the embryo are the right and left primitive aortae. They are continuous with the two endocardial heart tubes. After the fusion of the two endocardial tubes, the two ventral aortae partially fuse to form the aortic sac, the unfused parts remaining as the right and left horns of the sac. Hence, the descending aorta is derived from the left dorsal aorta, below the attachment of fourth arch artery, along with the fused median

Table 1: Variation in source of origin of the cystic artery according to different authors

Studies	RHA	ARHA	HAP	CHA	LHA	MHA	GDA	SMA	CT
Michels ^[9]	77.5	12	0	1.5	5	0	4	0	0
Saidi <i>et al.</i> ^[10]	92.2	0	7.8	0	0	0	0	0	0
Pushpalatha and Shamasundar ^[11]	54	2	22	12	0	0	8	2	0
Johnston and Anson ^[12]	85.7	14.3	0	0	0	0	0	0	0
Tejaswi <i>et al.</i> ^[13]	92	4	2	0	1	0	1	0	0
Daseler <i>et al.</i> ^[14]	71.7	16.1	0	2.8	6.3	0	2.6	0.1	0.3
Bhardwaj ^[15]	75	0	0	0	5	13.3	6.7	0	0
Gawali ^[16]	90	3.3	0	0	3.3	0	3.3	0	0
Dandekar and Dandekar ^[3]	79.3	12.1	3.7	2.5	1.2	1.2	0	0	0

RHA: Right hepatic artery, ARHA: Aberrant right hepatic artery, HAP: Hepatic artery proper, CHA: Common hepatic artery, LHA: Left hepatic artery, MHA: Middle hepatic artery, GDA: Gastroduodenal artery, SMA: Superior mesenteric artery, CT: Celiac Trunk

vessels.^[19] It is easy to perceive the high degree of arterial variation within this vascular system as described by Daseler *et al.*^[20]

CONCLUSION

Knowledge of the different anatomical variations of the arterial supply of the gallbladder, liver, and stomach is of great importance in hepatobiliary and gastric surgical procedures.^[20,21] Many of variations are found in the cystic artery as origin, relation with biliary duct, branching, Calot's triangle, etc.

It is to be conclude that cystic artery originates mostly from the RHA (60–90% of population) and rarely from CT (0.3% of population). During cadaveric dissection was it observed that the cystic artery is taking origin from celiac trunk instead of its normal origin from the right hepatic artery. Findings supports above most rare condition that cystic artery can also originate from celiac trunk. Present findings may be helpful for surgeons during the performance of surgeries involving hepatic and biliary apparatus and also keep significant role for radiological aspect.

REFERENCES

1. Dutta AK. Essential of Human Anatomy. 9th ed. Kolkata: Current Book International; 2014. p. 155.
2. Charmode SH. Variation in the origin and course of cystic artery. *J Res Human Anat Embryol* 2016;2:11-2.
3. Gertsch P. The technique of cholecystectomy. In: Blumgart HL, Belghiti J, Jarnagin WR, De Matteo RP, Chapman WC, Buchler MW, Hann LE, Angelica MP, editors. *Surgery of the Liver, Biliary Tract and Pancreas*. Philadelphia, PA: Saunders; 2007. p. 496-505.
4. Rocko JM, Swan KG, Di Gioia JM. Calot's triangle revisited. *Surg Gynecol Obst* 1981;153:410-4.
5. Anson BH. The aortic arch and its branches. In: Luisada A, editor. *Cardiology*. Vol. 1. New York: McGraw-Hill; 1963. p. 119.
6. Harris HW, Pellegrini CA. Surgical Disease of the Biliary Tract and Pancreas-Multidisciplinary Management Year Book. In: Braasch and Tompkins. St Louis: Mosby; 1994. p. 130-2.
7. Balija M, Huis M, Stulhofer M, Nikolić V. Contribution to the nomenclature of variations of the cystic artery. *Chirurg* 2001;72:154-8.
8. Ding YM, Wang B, Wang WX, *et al.* New classification of the anatomic variations of cystic artery during laparoscopic cholecystectomy. *World J Gastroenterol* 2007;13:5629-34.
9. Michels NA. The hepatic, cystic and retroduodenal arteries and their relations to the biliary ducts: with samples of the entire celiacal blood supply. *Ann Surg* 1951;133:503-24.
10. Saidi H, Karanja TM, Ogengo JA. Variant anatomy of the cystic artery in adult Kenyans. *Clin Anat* 2007;20:943-5.
11. Pushpalatha K, Shamasundar NM. Variation in the origin of cystic artery. *J Anat Soc India* 2010;59:35-7.
12. Johnston EV, Anson BJ. Variations in the formation and vascular relationships of the bile ducts. *Surg Gynecol Obstet* 1952;94:669-86.
13. Tejaswi HL, Dakshayani KR, Ajay N. Prevalence of anatomical variations of cystic artery in South Indian cadavers. *Int J Res Med Sci* 2013;1:424-8.
14. Daseler EH, Anson BJ, Hambley CW, Reiman AF. The cystic artery and constituents of the hepatic pedicle. *Surg Gynecol Obstet* 1947;85:47-63.
15. Bhardwaj N. Anomalous origins of hepatic artery and its significance for hepatobiliary surgery. *J Anat Soc India* 2010;59:173-6.
16. Gawali RA. A study on variations of origin and course of cystic artery and its relation to the Calot's triangle. *Int J Med Pharm Sci* 2014;5:15-9.
17. Singh I. Human Embryology. 11th ed. New Delhi: JAYPEE BROTHERS Medical Publishers (P) Ltd.; 2018. p. 190.
18. Hiatt JR, Gabbay J, Busuttil RW. Surgical anatomy of the hepatic arteries in 1000 cases. *Ann Surg* 1994;220:50-2.
19. Singh I. Human Embryology. 11th ed. New Delhi: JAYPEE BROTHERS Medical Publishers (P) Ltd.; 2018. p. 243, 245.
20. Daseler EH. The cystic artery and constituents of the hepatic pedicle. A study of 580 specimens. *Surg Gynecol Obstet* 1947;85:47-63.
21. Loukas M, Ferguson A, Louis RG, Colborn GL. Multiple variations of the hepatobiliary vasculature including double cystic arteries, accessory left hepatic artery and hepatosplenic trunk: A case report. *Surg Radiol Anat* 2006;28:525-8.



Applied aspect of Shadchakras and its importance

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Article Info

ISSN (online): 2582-7138

Volume: 03

Issue: 01

January-February 2022

Received: 28-11-2021;

Accepted: 16-12-2021

Page No: 19-22

Abstract

The shatchakra or “centers of consciousness” according to yogic concepts are channelizing the human potential energy. These imaginary chakras are Muladhara, Svadhishtana, Manipura, Anahata, Vishuddha and Ajna chakra. Sahasrara Chakra also situated on the top: this is the head of all the Chakras. All the Chakras have association with this center. Therefore this is not incorporated in Shatchkras. The *chakras* are vortices of supernatural energy and they are visualized and experienced as circular movements of energy at particular rates of vibration. It is very necessary to explore this yogic knowledge for our physical, mental and spiritual well being.

Keywords: shatchakra, Chakra, yogic knowledge

Introduction

The chakra system originated in India between 1500 and 500 BC in the oldest text called the Vedas. Facts of chakras are also found in the *Yoga Shikha Upanishad*, the *Shandilya Upanishad*, the *Cundamini Upanishad*, and *Shri Jabala Darshana Upanishad*. *Shadchakras* literally originated by two words, shad is representing numerical value and chakra is ‘wheel’ or ‘circle’. In yogic context it is ‘vortex’ or ‘whirlpool’. The *chakras* are vortices of supernatural energy and they are visualized and experienced as circular movements of energy at particular rates of vibration.

These chakras are positioned in the spinal cord, But they widely work in the body. We cannot find out these chakras from dissection but it is related with our control system of body and they are aspect of consciousness. These six *chakras* serve as switches for turning on different parts of the brain. The awakening which is brought about in the *chakras* conducted to the higher centers in the brain through the *nadis*. There are also two higher centers in the brain which are commonly referred to in *kundalini yoga*: *bindu* and *sahasrara bindu* is located at the top back of the head. *Bindu* feeds the whole optic system and it is also seat of nectar or *amrit*. *sahasrara* is superlative: final culmination of *kundalini shakti*. It is seat of higher awareness and situated at the top of the head, anatomically correlated to the pituitary gland.

Chakras are like a source of power from which energy run to different places. The *nadis* which come out from each chakra transmit *prana* in both directions. The outgoing and the incoming reaction enter and leave the chakra in the form of this *pranic* flow in the corresponding *nadis*. According *tantras*, there are 72 thousands of *nadis* ^[1], in which 3 are main *nadis* and in the space outside the *Merudanda* (spinal column) placed on the left and the right is the two *Nadi Ida* and *Pingala*, the *Nadi Sushumna* is in the middle. The *Ida*, *pingala* meet *Sushumna Nadi* at the *Muladhara Chakra* and make a knot. This junction is called *Mukta Triveni*. *Ganga*, *Yamuna* and *Saraswati* reside in *Pingala*, *Ida* and *Sushumna*. This confluence place is called *Brahma Granthi*. These meet again at the *Anahata* and *Ajna Chakra*. *Ida* flows through the right nostril and *Pingala* through the left nostril. *Ida* [*Sasi*, *Lalana*, *Pitryana*] is called *Chandra* (Moon) *Nadi*, in its course it conveys lunar energy.

Pingala [*Mihira*, *Rasana*, *Devayana*] is called *Surya* (*Sun*) *Nadi*, as solar energy flows through it. *Ida* is of pale, *Shakti Rupa*; *Pingala* is of fiery red, *Rudra Rupa*. *Ida* and *Pingala* carry the *prana* and the *apana*. *Ida* and *Pingala* indicate *Kala*

(time, death) and *Sushumna* swallows time [2].

This chart shows some important facts regarding *shadchakra* [3].

Table 1

Chakra	Location	Element	Dala	Color	Gyana indriya	Kar mind riye	Dhyan Ka Phal	Mantra
Muladhar	Pelvic floor	Earth	4	Red	Nasa	anus	Vidhya abhyas	Lam
Swadishth AN	Above the pelvic bone and below navel	Water	6	Orange	Rarasna	shishna	Kavya yog	Vam
Manipur	Navel	Fire	10	Yellow	Netra	padu	Vidhya samarthya	Ram
Anahat	Heart	Air	12	Green	Twak	hasth	Ishwat, vivekprap ti	Yam
Vishudh	Throat	Ether	16	Blue	Karn	vaak	Vaktava, gyan	Ham
Ajna	Between the eyebrow	Light	2	Indigo	-	-	Vakyasid dhi	Sham
Sahasra A	Crown of the head	All elements	-	Violet	-	-	mukti	Om

Each chakra has color associated with it. Visible light gives off electromagnetic waves, vibrating across the field through time and space. Depending on how swiftly the waves are vibrating, our eyes will pick them up as diverse colors. Red, for example, is a lower frequency wave that looks like a slow spin; purple, on the other side, is a high frequency wave with sharp peaks and valleys.

Each *Chakra* has an exacting number of petals with a Sanskrit alphabet on each petal. The letters exist in the petals in a dormant form. These can be manifested and the vibrations of the *Nadis* felt during meditation. "The number of petals in each *Chakra* is determined by the number and positions of the *Nadis* around the *Chakra*. From each *Chakra* particular number of *Yoga Nadis* crop up. The *Chakra* looks like a lotus with the *Nadis* as its petals. The sound is produced by the vibrations of the corresponding Sanskrit letter. The *Chakras* with their petals hang downward when *Kundalini* is at the *Muladhara Chakra*. When it is awakened, they turn toward *Brahmarandhra*. They always face the side of *Kundalini* [4]. The five elements from which all conception is manifest are accessible through '*Chakras*' located in the spinal area. The *Chakras* are energy centers in the *Linga sharir* corresponding to five locations in the spinal region and two in the area of the brain. *Muladhara chakra*, it represents stability and support. *Swadishthan chakra*, it represents joy and general sense of well being. *Manipura chakra*, it represents power and wisdom. *Anahata chakra* represents love, forgiveness, compassion to all. *Vishuddha chakra* represents faith in our own selves, trust in others, creativity. *Ajna chakra* represents knowledge, dignity, and intuition. *Sahasrara chakra* represents perfect balance, oneness with the universe. *Dhyani* also describe *gyanindriye*, *kar mindriye*, *dhyan ka phal* and *mantra* for each *chakra*.

Importance of Chakra

In *sharir rachna vigyan*, we cannot see them from naked eyes and cannot find out these chakras from dissection but it is related with our control system of body and widely works in the body.

In *sharir kriya vigyan*, described their physiology. Many researchers have been describe the action of *shadchakra* is related with the functions of *vayu*. The chief function of *Apana Vata* is *Urination*, *Defecation*, and *Ejaculation* [5]. *Linga*, *Guda* is the *Sthana* of *Swadishthana* and *Muladhara Chakra*. The *Muladhara Chakra* governs the immune system, skeletal system, lower digestive tract, i.e. colon, rectum, anus. If the energy is blocked or unhealthy, it might manifest in physical symptoms such as arthritis, constipation, haemorrhoids; obesity and weight problems; foot, knee and

leg problems; poor balance; lower back pain or sciatica. *Swadishthana Chakra* controls lymph, mucus, urine, and energy controls maintenance of water level in body. According to *ayurveda* all these functions are controlled by *Apana Vayu* [6]. Hence making a full circle of interrelationship and resulting in relationship between the *Swadishthana* and *Muladhara Chakra* and *Apana Vata*.

Manipur Chakra and *Saman Vayu*: *Samana Vata* is *Agni Samipa* and *Sthana* of *Manipur Chakra* is *nabhi* (navel). *Saman Vayu* situated between navel and the diaphragm [7]. *Manipur Chakra* is the seat of digestive fire. Hence, this is establishing relationship between *Samana Vayu* and *Manipur Chakra*.

Anahat Chakra and *Prana Vayu*: *Sthana* of *Anahat Chakra* is *Hridaya* (heart) which is also the *sstana* of *Prana Vayu*. All organs of the thorax including heart and lungs are maintained by *Prana*. The basic function of respiration and pumping of heart is controlled by *Prana*. Similarly, *Anahat Chakra* controls respiratory system and circulatory system. Some respiratory problems like asthma, chronic bronchitis associated with imbalance of *Anahat chakra*. Hence this is establishing interrelationship between *Anahat Chakra* and *Prana Vayu*.

Vishudh Chakra and *Udan Vayu*: is located in the *Kantha Pradesh* (throat) [8] and regulates speech, growth. And *Kantha Pradesh* is the *Sthana* of *Vishudh Chakra*. The function of *Udana Vata* is auditory work and for these purpose *Kantha Pradesh* is used. *Vishudh Chakra* has control over the region of neck, throat, oesophagus, thyroid and parathyroid glands, vocal cords, trachea, mouth, teeth, and gums, vocal cords. When its energy gets blocked, person prone to sore throats, speech impediments, eating disorders, deafness, teeth clenching, thyroid imbalance. So that it is establishing interrelationship between *Vishudh Chakra* and *Udan Vayu*.

Many Researchers conclude that.

1. Function of *Ajnya Chakra* may be managing the function of Pituitary and Pineal glands through *Pranavata*.
2. *Vishuddha Chakra* may be control the function of Thyroid and parathyroid glands through *Udana vata*.
3. *Anahat Chakra* may be control the function of Thymus gland through *Udana vata*.
4. *Manipur Chakra* may be control the function of Pancreas and adrenal gland through *Saman avata*.
5. *Swadishthana* and *Muladhar Chakra* may be control the function of Gonads through *Apana vata* [9].

Applied aspect of Shadchakra

shadchakra is very important in our body. *Shadchakra* is

regulating our whole body. These *chakras* are also affected our spirituality. According to yogic science every chakra have individual magical powers, if they block, those directly affect our behavior, body and mind. So If *vata* is affected these chakra are exaggerated and effect the body system and mental peace. When these Chakras works properly , energy flow all over the body.

Mooladhar Chakra

The first chakra is comprised of whatever grounds to stability in life. For stability in life our basic needs such as food, water, shelter, and safety are necessary, as well as your more emotional needs such as letting go of fear also necessary. After fulfill of these needs, we feel grounded and safe, and tend to worry less day to day.

Imbalances of Mooladhar Chakra

If there is an imbalance in the chakra, it may cause anxiety disorders, unfounded fears, or nightmares. Physical problems may be occurs like problems in colon, with the bladder, with elimination, or with lower back, leg, or feet issues. In men, prostate problems might occur. Eating disorders may also be a sign of a root chakra imbalance.

Swadishthan Chakra

The focus of chakra is creativity. As humans, it is part of nature to create. When use creative energy – whether it is through cooking, baking, gardening, procreating, or even finding a new solution to an old problem – these are opening second chakra. A balanced *Swadishthan* chakra leads to approach of wellness, wealth, happiness, and enjoyment.

Imbalances of Swadishthan Chakra

when this chakra is out of balance, experience emotional instability, creative blocks, fear of change, sexual dysfunction, depression, or addictions.

Manipura Chakra

Manipura chakra is open and healthy, the person is self-confident and self-motivated. Having clear goals, desires, and intentions allows moving forward and achieving them. Each small step while honoring the larger intention helps to strengthen third chakra.

Imbalances of Manipura Chakra

If third chakra is imbalance, can be suffer from low self-esteem, have difficulty making decisions, and may have anger or control issues. The digestive fire, called Agni, is also present in the third chakra – weak digestion may indicate a blockage.

Anahat Chakra

The Sanskrit word for the fourth chakra is *Anahata*, which means “unstruck” or “unhurt.” The name implies that beneath the pains and grievances of past experiences lies a pure and spiritual place where no hurt exists. When anahat chakra is open, individual is flowing with love and compassion.

Imbalances in Anahat Chakra

A closed chakra can give way to grief, anger, jealousy, fear of betrayal, and hatred toward you and others. Physical imbalances may manifest as heart conditions, respiratory problems, or upper-back pain.

Vishudh Chakra

Work on the lower chakras will help prepare for this level of communication. For example, when align the first and second chakras, it helps with overcoming fear. Opening the third chakra helps to feel personal power and have the confidence to express our self. Knowing what’s in your heart comes when you align the fourth chakra. Then, verbalizing your needs, desires, and opinions.

Imbalances in the Vishudh Chakra

If *vishudh chakra* is imbalance, this may manifest as difficulty in communication and express feelings, indecision, and mood swings, Thyroid problems, a sore throat or stiff neck, and tooth and gum issues.

Ajna Chakra

Institution is like a “sixth sense” that grows stronger as open third eye, something you can look to for guidance in making the right decisions. With a fruitless sixth chakra, only the mind, intellect, and ego are used in the decision-making process. When the third eye is open, however, the soul becomes involved as well. Pay attention to a hunch or a subtle feeling of moving forward or holding back. Imbalances in the third eye chakra, if there are an imbalance in the sixth chakra may experience poor intuition, lack of concentration, impaired judgment, confusion, or depression. Physical imbalances may manifest as headaches, trouble sleeping, or nightmares.

Shaswara Chakra

While many people have the demands of daily living and the busy minds that accompany these demands, reaching enlightenment may not be as far off as it appears. Practicing meditation, prayer, or daily silence is disciplines that lead to increased moments of spiritual connection. Once established a daily practice of these activities that connect universal conscious.

Imbalances in the crown chakra

A Imbalanced crown chakra can lead to Dyspnea, aimlessness, feelings of being alone, excessive materialism, lack of spiritual associations, and difficulty meditate. Physical imbalances may manifest as exhaustion, sensitivity to light and sounds, poor sleep habits, or migraines and tension headaches.

Conclusion

It is to be concluding that *Shatchakra* is basically those *chakras* in our body which are dealing related area physiology. In ancient era there are no basic parameters to measure the stability, vitality and mental status of the body. They imagine about *chakras*, these *chakras* are feeling of life and balance the body. They flow the energy in body so vitality can survive. This energy of body gets from *aahar* and *vihaar*. *Aahar* and *vihaar* are directly effect to our *chakras*. In today era, imagination of these *chakras* in body so one can say every *chakra* are regulate the whole body system and whole physiology of these *chakras* and *chakras* are inter-related with each other. These chakras are not limited as only nervous system of body; they are also affecting our digestive system, circulatory system, and endocrine system of body. Some researcher believes that the *chakras* interact with the

two major vehicles, the endocrine system and nervous system. For a healthy individual those fulfilling the *Swasthya* criteria as per *Acharya Kashyap* necessarily required to proper working of these *chakras* and it can be said that if these *chakras* are properly working so an individual is healthy.

References

1. Saraswati Swami SN, Kundalini Tantra. Yoga Publication Trust Munger Bihar, 2013.
2. [Cited on 15/12/2021] Available From <https://www.ayurvedatreatments.co.in/ayurvedatreatments/index.php/364-shatchakra-in-ancient-indian-science>
3. Vaidya Dhyani Siv Charan, Kriya Vijnanam: Choukhamba Orentelia Varanshi 1991; 1:162-163.
4. [Cited on 15/12/2021] Available From <https://www.ayurvedatreatments.co.in/ayurvedatreatments/index.php/364-shatchakra-in-ancient-indian-science>
5. KM Sweta, HM Awasthi, *et al.* Physio-anatomical resemblance of inferior hypogastric plexus with Muladhara Chakra: A Cadaveric Study: AYU 2017; 38:(1- 2).
6. Bilgi AR, Shukla DV. Study to Correlate the Shat Chakras To The Location of Sushir Snayus In The Human Body. World Journal of Pharmaceutical Research. 2017; 6(4):1143-1149.
7. Pritam Moharana, Rakesh Roushan. A critical review of samana vayu in the modern perspective. Int J Ayu Pharm Chem. 2018; 9(2):2350-2354.
8. Sreelekshmi G, Kulkarni Pratibha. Udana Vayu Physiological Understanding. International Ayurvedic Medical Journal. 2015; 3(8)2501-2503.
9. Vd Sawant Shreya Umesh MD. (Rachana Sharir) Associate Professor, D.Y. Patil School Of Ayurveda, Nerul, Mumbai, India.

**CASE SERIES: INSTANT EFFECT OF MARMA THERAPY IN THE PAIN
MANAGEMENT WSR: TO SHOULDER PAIN**

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<https://doi.org/10.46607/iamj3508112020>

(Published online: November 2020)

Open Access

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Article Received: 09/10/2020 - **Peer Reviewed:** 06/11/2020 - **Accepted for Publication:** 08/11/2020



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ABSTRACT

Science of *Marma* known as *Marma Vigyanam* is a dynamic part, specially described in *Sushrut samhita* and other *Ayurvedic* classics. According to *Sushrut Mamsa*, *Sira*, *Snayu*, *Asthi*, and *Sandhi*, these five elements collectively present at *Marma* point. This is the peculiarity of *Marma*.¹ *Marmas* are the vital points on the body having importance regarding surgical procedure and traumatic effect. It is also known as *Ayurvedic Accupressure*. In this paper, three similar cases of pain and stiffness in shoulder joints are presented, who has attended OPD of District Hospital Shivaji Nagar, Bhopal. In during the clinical examination partially restriction of shoulder movement is also recorded. The case was initially treated with *Marma* therapy mainly the stimulation of bilateral *Bahu Marma* along with *Amsa Marma* for instant pain management. After the treatment of about ten minutes the patient got relief in pain and stiffness and felt lightness in surrounding area of painful place. *Amsa Marma* manipulation can be used to give instant relief from *Shoulder pain* effectively.

Keywords: *Marma* therapy, pain management, *Ayurveda acupressure*

INTRODUCTION

Ayurveda is profound system of mind, body, and soul. *Ayurveda* not only focus on body but also helps to get the insight of the soul within. It also emphasizes on the harmony of the soul and the universe outside. The science of *Marma* known as *Marma Vigyanam* is a dynamic part, specially described in *Sushrut samhita* and other *Ayurvedic* classics. *Acharya Sushrut* has described 107 *Marmas* and classified into various types on the basis of location, involved structure and effect of injury. With the comparison of major injuries of body only minimal injury on *Marma* point may leads to severe effect like dysfunction, disability, and death. According to *Acharya Sushrut* *Marma* comprises of *Jala*, *Vayu*, *Tej*, *Satva*, *Raja*, *Tama*, and *Bhootatma* so that injury of *Marma* may leads to death². *Brihatrayi* has explained about the *Marma* and their impact on body but noteworthy description of *Marma* is found in *Pratyek-Marmanirdesham shariram adhyay* of *sharirasthanam* in *Sushrut samhita*. *Acharya Charak* has mentioned 107 numbers of *Marma* but discussed only *Trimarma* namely *Hridaya*, *Sira*, *Basti*. The science of *Marma* is called as half part of whole surgery³. The knowledge of the *Marma* is essential for the surgeons to perform a surgery. Though, numbers of medicines are available for reducing pain in modern science. But maximum is nephrotoxic or hepatotoxic. These medicines take time to consume and perform action. But *Marma* therapy showed instant effect on pain in these cases.

Aim and Objective-

1. To explore the instant effect of *Marma* therapy in the pain management.
2. Assessment of effects of *BahuMarma* and *Amsa Marma* in the management of pain in shoulder joint.

Selection of Marma-

Amsa Marma- *Acharya Sushrut* categorized *Amsa Marma* as a *vaikalyakar Marma*, *Snayu Marma* which have $\frac{1}{2}$ *anguli* (half a finger unit) in size. It situated between shoulder and Neck.⁴

Kakshadhar Marma- According to *Sushrut* *Kakshadhar Marma* is *vaikalyakar Marma*⁵, *Snayu*

Marma, and According to *Vagbhatta* it is *Vaikalyakar Shira Marma*. Measurement of this *Marma* is One Finger unit⁶. It is situated between *Axila (Kaksha)* and Chest (*Vaksha*).

Ani Marma – *Aani Marmas* are 4 in number, 2 in upper limbs and 2 in lower limbs. In upper limb it is situated at 3 finger above to *Kurper Sandhi* (Elbow Joint). They are categorized as *Vaikalyakar*, *Snayu Marma*.

Urvi Marma- *Urvi* are 4 in number, 2 in upper limbs and 2 in lower limbs. In upper limb it is situated at middle of the arm (*Bahu*).⁷ They are categorized as *Vaikalyakar*, *Sira Marma*, Measurement of *urvi Marma* is One Finger.

Kurper Marma- *Kurpar* are 2 in numbers, 3 fingers in measurement categorized as *Vaikalyakar*, *Sandhi Marma*.

Indravasti- Referring to the God *Indra's* arrow, they are 4 in number, 2 in upper limbs and 2 in lower limbs. Measurement of approximately $\frac{1}{2}$ *anguli* (half a finger unit). It is Categorized as *Kalantarpranhar*⁸, *Mamsa Marma*.

Kshipra- *Kshipra Marmas* are 4 in number, 2 in upper limbs and 2 in lower limbs. These are categorized as *Kalantarpranahar*⁹, *Snayu Marma*. Measurement of these *Marma* approximately $\frac{1}{2}$ *anguli* (half a finger unit).

Kurch- *Kurcha* are also 4 in numbers (2 in palm and 2 in sole). These are categorized as *Vaikalyakar Marma*, *Snayu Marma*.

Tal hridaya. Word *Talhriday* is made by two words *Tal* and *Hriday*. Word *Tal* means⁹ Palm or sole and *Hriday* means Heart. Collective mean of *Talhriday* is 'heart of the hand', this *Marma* point is found at the center of the palm, and measures $\frac{1}{2}$ *anguli* (half a finger unit) in size. They are categorized as *Kalantarpranhar*¹¹ *Mamsa Marma*.

Case History-

Case 1- A 60-year male, OPD Number 9207 came in the OPD of District Ayurvedic Hospital Shivaji Nagar Bhopal on 10/08/2020 with complains of pain and stiffness in bilateral shoulder joint. Restricted shoulder

movement. Pain and stiffness have been gradually increased from last one year.

Case 2- A 60-year male, OPD Number 9165 came in the OPD of District Ayurvedic Hospital Shivaji Nagar Bhopal on 10/08/2020 with complains of pain in right hand since approx. 4 months. Pain starts from right side back of the neck, radiate to right hand up to forearm. In this case patient have additional some skin problem.

Case 3- A 55-year male, OPD number 8332 came in the OPD of District Ayurvedic Hospital Shivaji Nagar Bhopal on 20/07/2020 with complains of pain in left side shoulder joint since March 2020, patient unable to raise his left hand completely. He felt pain and stiffness on raising left hand.

Procedure-

In Case 1- patient seated straight on Stool. Start Stimulation from *amsa Marma* down to *Sakthi Marmas*. The right *Amsa Marma* of the patient was pressed downward and inward with the right Thumb. Continuously 20-time Medium bearable pressure was given for approx 0.8 second. This procedure repeats one by one to each *Marmas* right to left arm.

In Case 2 - patient seated straight on Stool. Start Stimulation from *amsa Marma* down to *Sakthi Marmas*. The right *Amsa Marma* of the patient was pressed downward and inward with the right Thumb. Continuously 20-time Medium bearable pressure was given for approx 0.8 second. This procedure repeats one by one to each *Marmas* of right arm.

In Case 3- - patient seated straight on Stool. Start Stimulation from *Amsa Marma* down to *Sakthi Marmas*. The left *Amsa Marma* of the patient was pressed downward and inward with the right Thumb. Continuously 20-time Medium bearable pressure was given for approx 0.8 second. This procedure repeats one by one to each *Marmas* of left arm.

Post procedure: -

In Case 1-The patient was suggested to complete rotation of bilateral shoulder for 5 times. He was also advised for free shoulder movements. Then he was prescribed conservative treatment; Cab Spondylon 2 bd before meal, Anu Tailam Pratimarsh nasya, Rumet 90 Liquefied 10 ml QID with water, Chitayu Liniment

mix with Prasarni Tailam for Abhyang locally, Tab Sallaki MR 1 BD for 10 days.

In Case 2- The patient was suggested to complete rotation of bilateral shoulder for 5 times. He was also advised for free shoulder movements. Then he was prescribed conservative treatment; Syp Dermina 10 ml tds, Tab Radona 2 Bd, Soap Nisoreia for bathing, Panch Nimb Churna ½ Teaspoon Bd, Arogyavardhani Vati 2 Bd, Chirayu Liniment for local application, Tab Byna 1 bd for 10 days.

In Case 3- The patient was suggested to complete rotation of bilateral shoulder for 5 times. He was also advised for free shoulder movements. Then he was prescribed conservative treatment; Prasarni Tailam, Ashwagandha Churna ½ tsfod with milk, Swarna Makradhwaj Ras 1 Tab Od with water. Yoga-Skandha Sanchalan

Outcome-

Case 1- During the therapy patient felt pain. Intensity of pain gradually comes down. After stimulating all the selected *Marmas* one by one; patient felt lightness of both hands, approx 90% relief in left side and approx 40% to 50 % relief in right side. After 5-minute patient approx complete relief in left side and 70% relief in right side. Outcome recorded from directly patient's words.

Case 2- During the therapy patient felt pain. Intensity of pain gradually comes down. After stimulating all the selected *Marmas* one by one; patient felt lightness of right hands, 100% relief in pain reported by patient.

Case 3- the therapy patient felt pain. Intensity of pain gradually comes down. After stimulating all the selected *Marmas* one by one; patient felt lightness of left hands, 50% relief in all symptoms reported by patient.

Follow-up-

Case 1- On telephonic conversation patient says pain start after 1-2 hours.

Case -2 visited again in the hospital on the date of 14/08/2020. He said pain again started after 24 hours of *Marma* therapy.

Case 3- On telephonic conversation patient says pain start after 3 hours.

DISCUSSION

Pain stiffness in Shoulder joint may be resulted by various causes whether it may be because of cervical involvement, whether it may be caused by Frozen shoulder or may be because of Primary Adhesive capsulitis or so many issues. If compare with NSAID (Non-Steroidal anti-inflammatory drugs), it will take action approx one hour after taking medicine while *Marma* therapy has given instant relief in pain and stiffness. So now question is arising how *Marma* therapy works? Many scholars give few theories but still they are not able to define how abjectly *Marma* therapy works. In my opinion as *Marma* name is a collection of *Mamsa*, *Sira*, *Snayu*, *Asthi*, and *Sandhi*, so effect of *Marma* therapy is also a combined effect of these five elements. *Acharya Sushrut* says *Marma* is a place where *Prana*(vitality) naturally present so that all five senses got destroy by the dint on *Marma* and mind and intellect get changed. Similarly, pain senses also can be block by stimulation on the *Marma*. The number of *Shakhagat Marma* proclaimed is "44".out of them there are eleven *Marmas* in one *Sakthi*¹². Similar number should be counted in other *Sakthi* (inferior extremity) and in two *Bahu* (superior extremity). Means 22 *Marma* point found in upper limb and 22 *Marma* point found in lower limb. Out of them 24 is *Vaikalyakar Marma* which is called "*Shakhagat Vaikalyakar Marma*". *Vaikalyakar Marmas* are *Saumya* in nature due to presence of *Jala Mahabhoot*. *Soumya guna* supports the *Prana* (life) by virtue of its *Sthir* and *Shaitya* properties.¹³ These *guna* may shows reversible action means *Marma* is a way to treat related problems. Rest of *marmas* are *kalantar pranhar marma*, and *Rujakar Marma*. These *marmas* are also shown a miraculous effect on pain.

CONCLUSION

One misconception everyone knows about *Ayurveda* that *Ayurved* treatment takes time to show their action. *Marma* therapy is able to clarify this misconception because *Marma* therapy is fast acting, less time consuming and shows instant result on pain. *Marma* therapy is also being a part of emergency treatment of *Ayurveda*. It is non-invasive, cost effective therapy.

Extensive further studies are the needed to evaluate other effects of *Marma* therapy.

REFERENCES

1. Sushruta: Sushruta Samhita, edited with Ayurvedatatvasandeeepika Hindi commentary by Shastri Kaviraj Ambika Dutta. Varanasi India: Chaukhambha Sanskrit Sansthan; part 1; 2014; Shareera Sthana 6/16:69.
2. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirasthan. Ch.6, Ver. 37. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010. p.77.
3. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirasthan. Ch.6, Ver. 36. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010. p.77.
4. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Vol. 1. Sarirasthan. Ch.6, Ver. 27. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010. p.74.
5. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirasthan. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010, Ch.6, Ver.12: p.69
6. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirasthan. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010, Ch.6, Ver.29: p.76
7. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirasthan. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010, Ch.6, Ver.25: p.72
8. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirasthan. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010, Ch.6, Ver.10: p.69
9. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirasthan. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010, Ch.6, Ver.10: p.69
10. Pt damoder Sharma, Anatomical terminology of ayurveda. Shri bednaath ayurved bhawan limited publication Nagpur: 1979, P.20
11. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirasthan. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010, Ch.6, Ver.10: p.69

12. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirsthan. Ch.6, Ver. 5. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010. p.67.
 13. Shastri Ambikadutta Kaviraja, editor. Susruta Samhita of Maharshi Susruta, Sarirsthan. Ch.6, Ver. 17. Vol. 1. Varanasi: Chaukhambha Sanskrit Bhawan Publication; 2010. p.70.
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Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Ashish Kumar Gupta et al: Case Series: Instant Effect Of Marma Therapy In The Pain Management WSR To Shoulder Pain. International Ayurvedic Medical Journal {online} 2020 {cited November, 2020} Available from:

http://www.iamj.in/posts/images/upload/5174_5178.pdf