

## WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 7.523

Volume 6, Issue 17, 1225-1231.

Research Article

ISSN 2277-7105

# A CASE OF VISHAMAJWARA TREATED WITH AYURVEDIC MEDICINES GUDUCHI AND VISHAMA JWARAHARA YOGA

### Prashant B. Bedarkar<sup>1</sup>\*

Assistant Prof., Dept. of Rasashastra & Bhaishajya Kalpana, IPGT & RA, Gujarat Ayurved University, Jamnagar, Gujarat, Inida.

Article Received on 31 October 2017, Revised on 21 Nov. 2017, Accepted on 11 Dec. 2017 DOI: 10.20959/wjpr201717-10457

\*Corresponding Author
Dr. Prashant B. Bedarkar
Assistant Prof., Dept. of
Rasashastra & Bhaishajya
Kalpana, IPGT & RA,
Gujarat Ayurved University,

Jamnagar, Gujarat, Inida.

#### **ABSTRACT**

Visham Jwara in Ayurveda is an intermittent and complicated type of fever whose signs and symptoms are similar as that of malerial fever. Formulations of Guduchi; Tinospora cordifolia (Wild.) Miers ex Hook. F. & Thoms. [swarasa, kwatha, ghana etc] and Sudarshana churna are widely practiced in the management of fevers of multiple origin in Ayurvedic therapeutics. Vishama Jwarahara yoga is tablet dosage form, traditionally used and prepared from Sudarshana churna. A middle aged Diabetic female presented with intermittent, cloroquin resistant high grade fever having history of intermittent high grade fever 17days ago, relieved with cloroquin and having similar history with her daughter, was diagnosed as case of Vishama Jwara which was

most likely a malerial fever was, successfully treated with Ayurvedic formulations of *Guduchi* (All derived from 150gms of fresh drug per day) and *Vishama Jwarahara* tablet 6gms per day within 7 days without further recurrence.

**KEYWORDS:** *Vishama Jwara*, Maleria, Guduchi, Tinospora cordifolia, *Sudarshana churna*, Intermittent fever.

**Key massages:** Acute intermittent fever (*Vishama Jwara*) can be successfully treated with Ayurvedic formulations of *Guduchi* (*Swarasa* and modified *Ghana* derived from fresh stems of 150gms of *Guduchi* per day) and *Vishama jwarahara Yoga* (6gms per day) derived from *Sudarshana churna*.

#### INTRODUCTION

Visham Jwara in Ayurveda is an intermittent and complicated type of fever due to vitiation of asthi and majja besides common involvement of rasadhatu<sup>[1]</sup>, whose clinical presentation is similar as that of malerial fever. Maleria is a leading cause of death and disease in many developing countries, where young children and pregnant women are the groups most affected.<sup>[2]</sup> Formulations of Guduchi; Tinospora cordifolia (Wild.) Miers ex Hook. F. & Thoms. [swarasa<sup>[3]</sup>, kwatha, ghana (samshamani vati)<sup>[4]</sup>, Asava arishta etc] and Sudarshana churna<sup>[5]</sup> are widely practiced in the management of fevers of multiple origin in Ayurvedic therapeutics.

#### **CASE HISTORY**

A 35 years old Diabetic (Type 2) female and known case of hypothyroidism and systemic arterial hypertension (since 1 year) presented with complaints of intermittent high grade fever with chills, malaise, loss of appetite, headache generalized weakness, nausea since 2 days. She received allopathic medicines Cloroquine phosphate 300mg base, 2 tablets stat and 1 tablet after 6 hours followed by 1 tablet after 24hrs post meals and tablet Primaquine 45mg stat followed by 15mg after 24 hrs on presentation. She had history of intermittent high grade fever with chills 17days ago, which was treated with same schedule of Cloroquine Phosphate as above along with one dose of 300mg after 48hrs of first dose and responded to treatment. She didn't had history of maleria or prolonged or intermittent fever or orthropathy in recent few years and no significant medical or surgical history, history of hospitalization for major illness (other than mentioned above), no personal or family history of other autoimmune disorders, rheumatic disorders. Her blood sugars were not properly controlled. Her 18 years old daughter also had similar complaints, who was prescribed similar course of Cloroquine in half the dose and responded well to the treatment. She didn't had any obvious foci of active infection i.e. no respiratory, urinary complaints, diarrhea, abscess or pyoderma. Systemic examination didn't revealed any major, significant abnormality associated with malerial fever. Her spleen was palpable (grade 1) and was mildly tender, malerial parasites not were not seen in peripheral blood. On the basis of clinical presentation and history, she was diagnosed as case of Vishama jwara. She was given last dose of Cloroquine Phosphate 300mg and primaquine was continued and was put on Ayurvedic treatment. Ongoing treatment for Diabetes (Madhumeha) was continued (e.g. allopathic medicines Tablet Metformin 250mg 2 times per day and Ayurvedic medicines Amalaki churna 2gms 4times per day, Guduchi churna 2gm 3 times per day and Pippali churna 500mg 4 times per day)

and Nishaamalaki churna (Haridra churna and Amalaki churna equal in quantity given 1 Bhavana with Amalaki Swarasa) 2gm 3 times per day was restarted which she was receiving for Diabetes since 1 year, but was discontinued herself since 15 days. Tablet Thyroxine 100mcg once a day and Tablet Atenolol 25mg once a day were also continued. Upon admission, she was additionally administered fresh Juice derived from 150gms of Guduchi (derived by addition of equal quantity of water) and Ghana derived from Decoction of same remnant Guduchi after extraction of Swarasa per day, which were equally divided in to 3 doses and given empty stomach along with Vishama Jwarahara Vati (300mg each), 4 tablets 5 times per day. On admission, she had evening rise fever with chills daily for 5 days and the peak temperature reduced from 104 to 100 on 6<sup>th</sup> day. There were no hematuria, bleeding tendency, altered sensorium and neurological, respiratory or urinary complaints. She started improving symptomatically from 3<sup>rd</sup> day and was afebrile, asymptomatic (except generalized weakness which recovered gradually) since 7<sup>th</sup> day onwards till discharge (10<sup>th</sup> day) and follow up (6 months). She was given course of primaquin for total 14 days and on discharge Mamejava Ghanavati and Saptarangyadi Ghanavati (3.6gm and 1.8gm, per day) were additionally prescribed for Diabetes along with ongoing medicines for Diabetes, Hypothyroidism and Hypertension.

#### **DISCUSSION AND RESULTS**

Inspite of hyperglycemia, there was no obvious focus of bacterial infection (Table 1). Although there was no proven laboratorial conformation of Malerial parasite, <sup>[6]</sup> still on the basis of history, presentation and physical clinical and laboratorial examinations, the case is most likely a Malerial fever or least possibly a viral fever as per contemporary science (Table 1). Development of resistance against the frontline anti-malarial drugs has created an alarming situation, which requires intensive drug discovery to develop new, more effective, affordable and accessible anti-malarial agents.<sup>[7]</sup> India reports the highest number of malaria cases in Southeast Asia.<sup>[8]</sup> The development of chloroquine as an antimalarial drug and the subsequent evolution of drug-resistant *Plasmodium* strains had major impacts on global public health in the 20<sup>th</sup> century.<sup>[9]</sup>

Vishama Jwarahara yoga is tablet dosage form, traditionally used and prepared from Sudarshana churna by process of single Bhavana with Kwatha of same drug. Sudarshana churna is combination formulation of powders of 54 medicines in equal parts and added with 54 parts of Kiratatikta (Swertia Chirata Buch. Ham), maximum of which are predominantly

bitter tasting [Sensory bitterness as well as physiological property and effects of bitter taste (tikta rasa) after consumption]. [10] Treatment with drugs possessing tikta Rasa is one among line of treatment of Fever in initial stage. Agnimandya is mainstay of pathology of *Jwara* and drugs with Deepana, Pachana property correct Agnimandya. Owing to Deepana, Pachana, Jwaraghna properties and Tikta rasa, of Guduchi and Kiratatikta, they are widely used in the management of all types of fever in Ayurvedic therapeutics and both the drugs are indicated as single drug and drug of choice for management of fever. Guduchi is called as "Indian quinine". [11] Both the drugs, their formulations or extracts, isolated active ingredients posses antimalerial properties  $^{[12]}$  in preclinical (in vitro  $^{[13],[14],[15],[16],[17],[18],[19],[20]}$  and in Vivo antipyretic<sup>[22],[23],[24],[25],[26]</sup>, studies<sup>[21]</sup>) studies, analgesic<sup>[27]</sup>. and clinical antiinflammatory, [28], [29] immunomodulatory properties. Guduchi is proven effective in the management of post malaria chronic hypersplenism<sup>[30]</sup>. Guduchi is considered as Rasayana (rejuvenator) and used for maintenance of health, prevention of diseases, hence might have prevented relapse in above cited case.

#### **CONFLICT OF INTEREST-**None declared.

**Table-01: Details of investigations.** 

Type of investigation	Day of investigation	Test parameters and results
Hematology	3 <sup>rd</sup>	WBC-3600/cumm. Differential WBC count-Neutrophils-57%, Lymphocytes-38%, Eosinophils-2%, Monocytes-3%, Basophils-absent, Others- Hb-12.3gm%, PCV-34%, ESR -34mm/hr(Westergreen), Total RBC count-4.16mil/cumm, Platelet count-130X10 <sup>3</sup> /μl. Blood indices-MCV-90.8, MCH-29.7, MCHC-32.7
Biochemistry	1 <sup>st</sup>	Random blood sugar-250 mg/dl
	4 <sup>th</sup>	Fasting blood sugar- 255mg/dl, Post prandial blood sugar-393 mg/dl
	$7^{\mathrm{th}}$	Fasting blood sugar- 282mg/dl,
	8 <sup>th</sup>	Random blood sugar-325 mg/dl, Post prandial blood sugar-348 mg/dl
	11 <sup>th</sup>	Random blood sugar-325 mg/dl
	18 <sup>th</sup>	<b>KFT-</b> Serum Creatinine-2.4mg/dl, Blood Urea-110mg/dl, <b>LFT-</b> Sr Bilirubin (Total, Direct, Indirect), SGOT, SGPT, AlPO <sub>4</sub> , Proteins (Total, Albumin, Globulin), Lipid profile, (Cholesterol, Triglycerride, HDL, LDL, VLDL) Results of rest of the investigations were within normal limits.
		HBA <sub>1</sub> C-1 year ago-10gm%, Recent- 9.5gm%
Urine routine	3 <sup>rd</sup>	Appearance-Clear, Albumin-absent, Puscells-2-3, RBC-Occasional., Epithelial cells-2-3, Sugar-++++, Acetone-Nil.
Peripheral smear for Malerial parasite	3 <sup>rd</sup>	Malerial parasite not seen.

#### REFERENCES

- RH Singh. Charak Samhita. 1<sup>st</sup> ed., reprint 2011, Chaukhambha Surabharati prakashana.
   899-900.
- Anonymous. Impact of malaria. Article by Centre for Disease control and prevention, Atlanta, accessed on 30.10.2017 at 7 pm. Available at https://www.cdc.gov/malaria/malaria\_worldwide/impact.html.
- 3. Brahma Shankar Shastry. Bhaishajya ratnavali. Chaukhambha samskrut sansthana. Varanasi, India. Pp.78, 79.
- 4. Anonymous. Ayurvedic formulary of India. Part II, AUSH Ministry of Health and Family Welfare, Govt. of India, New Delhi. Vati and Gutika, pp. 145.
- 5. Radhakrushna parashara. Sharangdhara samhita. 5<sup>th</sup> ed., 1994, Baidyanatha Ayurved Bhavan Limited, Nagpur, India, pp.253.
- 6. Anthony Moody. Rapid Diagnostic Tests for Malaria Parasites. Clinical Microbiology reviews, 2002: 15(1): 66–78.
- 7. Naveen K Kaushik *et al.* Evaluation of antiplasmodial activity of medicinal plants from North Indian Buchpora and South Indian Eastern Ghats. Maleria Journal. 2015; 1-8.
- 8. Diganta Goswami et al. Chemotherapy and drug resistance status of malaria parasite in northeast India Asian Pacific Journal of Tropical Medicine, 2013; 583-8.
- 9. Thomas E. Wellems1 and Christopher V. Plowe. Cloroquin resistant malaria. The Journal of Infectious Diseases, 2001; 184: 770–6.
- 10. Brahma Shankar Shastry. Bhaishajya ratnavali. Chaukhambha samskrut sansthana. Varanasi, India. Pp.48.
- 11. Bhoopendra Mani Tripathi1, D.C.Singh, Suresh Chaubey, Gagandeep Kour, Rishi Arya. A Critical review on *Guduchi (Tinospora Cordifolia* (Willd.) Miers) and its medicinal properties. Int. J. Ayur. Pharma Research, 2015; 3(5): 6-12.
- 12. Vibha Choubey, Parmita Dubey. Some Antimalarial Plants of Tribal Regions of M.P. IOSR Journal of Environmental Science, Toxicology and Food Technology: 2015; 1(5): 42-44.
- 13. J.P. Patel, Bharat Gami, Kanti Patel. Evaluation of in vitro Schizonticidal Properties of Acetone Extract of Some Indian Medicinal Plants. Advances in Biological Research, 2010; 4(5): 253-258.
- 14. Henrik Toft simonsen *et al.* In vitro screening of Indian medicinal plants for antiplasmodial activity. Journal of Ethnopharmacology, 2001; 74(2): 195-204.

- 15. Tran QL *et al.* In vitro antiplasmodial activity of antimalarial medicinal plants used in Vietnamese traditional medicine. Journal of Ethnopharmacology, 2003; 86(3): 249-52.
- 16. Anonymous, Preliminary Evaluation of Selected Medicinal Plants for Antiplasmodial Activity. Chapter 3, from e book, down loaded from http://shodhganga.inflibnet.ac.in/bitstream/10603/1379/8/08 on 31.10.2017 at 6.49pm, page 38-54.
- 17. Naveen K kashik *et al.* Evaluation of antiplasmodial activity of medicinal plants from North Indian Buchpora and South Indian Eastern Ghats. Maleria Journal: 2015; 2-8.
- 18. G. Praveen Bhat, Namita Surolia. *In Vitro* Antimalarial activity of extracts of three plants used in the Traditional Medicine of India. *Am. J. Trop. Med. Hyg.*, 2001; 65(4): 304–308.
- 19. Maninder Karan, S. Bhatnagar, P. Wangtak and K. Vasisht. Phytochemical and Antimalarial Studies on *Swertia alata* Royle. Acta Hort: 2005; 675: 139-45.
- 20. Bishnu Joshi, Sarah Hendrickx, Lila Bahadur Magar, Niranjan Parajuli, Pierre Dorny, Louis Maes. *In vitro* antileishmanial and antimalarial activity of selected plants of Nepal. J Intercult Ethnopharmacol, 2016; 1-7.
- 21. Vikram Singh, H. S. Banyal. Antimalarial effect of *Tinospora cordifolia* (Willd.) Hook.f. & Thoms and *Cissampelos pareira* L. on *Plasmodium berghei*. CURRENT SCIENCE, 2011; 101(10): 1356-8.
- 22. Bhomik Goel, Nishant Pathak, Dwividendra Kumar Nim, Sanjay Kumar Singh, Rakesh Kumar Dixit, Rakesh Chaurasia. Clinical Evaluation of Analgesic Activity of Guduchi (*Tinospora Cordifolia*) Using Animal Model. Journal of Clinical and Diagnostic Research, 2014; 8(8): 1-4.
- 23. Liaqat Hussain, Muhammad S. H. Akash, Noor-Ul Ain1, Kanwal Rehman, Muhammad Ibrahim. The Analgesic, Anti-Inflammatory and Anti-Pyretic Activities of *Tinospora cordifolia*. Adv Clin Exp Med, 2015; 24(6): 957–64.
- 24. Neetu Sharma, Arun Kumar. Antipyretic Activity of *Swertia chirayita* in Methanolic Extract. Int. J. Pharm. Sci. Rev. Res., 2017; 42(1): 09, 50-3.
- 25. Sushil Bhargava, Prakash S. Rao, Paridhi Bhargava, Shivshankar Shukla. Antipyretic Potential of Swertia chirata Buch Ham. Root Extract. Sci Pharm., 2009; 77: 617–623.
- 26. Md. Gheyasuddin, Mir Yousuf Ali, Md Tanwir Alam. Anti pyretic activity of *Swertia chirata buch-ham* (Chiraita talkh) on Albino rats (wistar strain). Am. J. Pharm Health Res., 2017; 5(9): 1-11.
- 27. P. Lakshmi Deepika, Dr. Jagadeesh, Dr. Supriya Priyambada, Dr.Sowmya. Analgesic, Antiinflammatory Activity of Tinospora Cordifolia (Guduchi) and Valeriana Wallichi

- (Tagara) In Albino Rats. Journal of Pharmacy and Biological Sciences. 2116; 11(8): 18-22.
- 28. Sreedam Chandra Das, Subrata Bhadra, Sumon Roy, Sajal Kumar Saha, Md. Saiful Islam and Sitesh Chandra Bachar. Analgesic and Anti-inflammatory Activities of Ethanolic Root Extract of *Swertia chirata* (Gentianaceae). Jordan Journal of Biological Sciences, 2012; 5(1): 31-6.
- 29. Mohammad Shahadat Hossain, Mohammad Ehsanul Hoque Chowdhury, Sumana Das and Imtiaz Uddin Chowdhury. *In-Vitro* Thrombolytic and Anti-inflammatory Activity of *Swertia chirata* Ethanolic Extract. Journal of Pharmacognosy and Phytochemistry, 2012; 1(4): 98-104.
- 30. Ranjan kumar Singh. *Tinospora cordifolia* as an adjuvant drug in the treatment of hyperreactive malarious splenomegaly case reports. J Vect Borne Dis., 2005; 42: 36–38.