

Role of Vatatapika Naimittika Rasayana as an Adjuvant Therapy in the Management of Rajayakshma Along with AKT w. s. r to Pulmonary Tuberculosis - A Case Study

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ABSTRACT

Rajayakshma is considered as one among the Astamahagada. It clinically represents a syndrome affecting many srotas. In modern era Rajayakshma which affecting the Prana vaha srotas resembles respiratory dominant pulmonary tuberculosis. It is an major global health problem with increasing morbidity and mortality at an alarming rate especially in the developing countries due to environmental changes, poverty, lack of nutritional diet, overcrowding poor ventilation and lack of awareness about the communicable nature of the disease.

KEYWORDS: *Rajayakshma, case report, Eladi gutika, Vyaghriadi kashaya, Pulmonary tuberculosis, AKT*

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INTRODUCTION

Tuberculosis is a potential infectious communicable high mortality Diseases. In India Since time immemorial it was a global health emergence in 1993¹. In India prevalence every year 1.8million person develop TB², of which about 0.8 million are new smear positive high infectious cases. Poor drug compliance, adverse drug reaction and poverty etc. have made failure in current treatment schedule. In spite of vaccination against Tuberculosis and RNTCP the success rate is not promising. Drug resistant is also one of the major cause for searching alternate solution for tuberculosis

Rajayakshma is studied in detail in ancient India since the vedic period and tuberculosis is the nearest clinical entity for *rajayakshma*. The maximum impact of *rajayakshma* in India is on respiratory system and

meninges however every structure is affected by it but the present clinical study is more focus on respiratory presentation of *rajayakshma*. Especially on *swasa, kasa, jwara, aruchi, dourbalya, parshwashoola, dhatu kshaya* etc ayurveda has categorised in *Trirupa, Ekadasha, Shadroopa* based on clinical presentation. Invariably *kasa, swasa, jwara* and weight loss are to be stringently treatment in pulmonary tuberculosis, If *agantuja, abhishangja* and *krimi upsargaja* is only targeted in the intervention it is not a complete module. If an augmented anti-inflammatory, respiratory tissue protective approach is undertaken along with DOTS therapy then recovery and prevention of respiratory tissue damage would be better. The group of symptoms is *vyadhi*, a group of *vyadhi is Yakshma* and king among the *yakshma* is

rajyakshma where *anulomana* and *pratilomana* are in types of etiopathogenesis,

Eladi gutika is a polyherbal rasayana with anti tussive, anti-oxidant, anti-viral antibacterial, respiratory rasayana which contain *Ela*, *tvak*, *patra*, *pippali*, *yasthimadhu*, *draksha kharjura*, *madhu*, *sita*. *Vyaghriadi kashaya* a polyherbal kashaya kalpana explained in *jwara adhikara* and it is effective in symptoms of *rajyakshma like jwara, kasa, swasa pinasa* the drug having *jwara, kasa, swasa hara* are effective in *pradhana lakshana* of pulmonary tuberculosis.

AIMS AND OBJECTIVES- Efficacy of *rasayana* to improve the immunity and to counteract the adverse drug reaction caused by anti-tubercular drug in pulmonary tuberculosis.

CASE REPORT-

CHIEF COMPLAINTS-

A 20 Year old patient came with the complaints of Kasa (expectorant in nature), Shwasa, Jwara, Aruchi, Jwara, Weight loss, Pandu

Addiction h/o – smoking, tobacco chewing, alcohol consumption

HISTORY OF PRESENT ILLNESS- Patient was apparently healthy three months back. He developed mild weakness, aruchi mild evening rise of temperature and kasa which was mild in intensity initially, but it continued for more than 4 weeks. Parents had taken for consultation in nearby private clinic and started with cough syrup and antibiotic for a period of one week but got no relief and started with continuous bout of kasa especially during night associated with nocturnal fever. Nature of sputum – white colour which is thick and more in quantity. Associated with aruchi and shwasa. Since 20 days the above symptoms aggravated, body weight loss of around 12 kg and not able to do daily activities. again they have shown to nearby hospital and chest x ray was advised- which shows- Ill-defined non homogenous noted in right upper zone with cavities .then the patient has been referred to district hospital RNTCP department for further investigation sputum AFB and CBNAAT .so the patient came here for the same.

HISTORY OF PAST ILLNESS- history of vyadhi karshana-present

History of intake of steroids-present

VAYAKITIKA VRITTANTA (PERSONAL HISTORY)

Ahara - mixed, alpa, ruksha, sheeta, teekshna

Rasa pradhana- katu, tikta

Sevana karma- vishamashana

Vihara- Nature of the occupation- job stress – autodriver, Swaroopa- hardworking hours – day time, exposure to sun thermal heat

Involves mental strain- yes

Involves vegavarodha- yes

Exposure to pollutants- yes

Vishrama- less

Sleep- disturbed

Kostha- mridu

Addiction- smoking, gutka chewing and alcohol- duration 2 years, regular

GENERAL EXAMINATION-

Built- lean, Cyanosis-absent, Nourishment- poor, Clubbing- absent, Pallor- mild, Pulse- 76bpm, Respiratory rate- 20 breath/ min, Blood pressure- 110/70 mm hg

ASTHA STHANA PAREEKSHA-

Nadi- Vata kapha 98/min, Mala- vibandha, Mutra- 3-4 times associated with daha Orangaish colour – due to the ATT drug, Jivha- lipta, Sabdha- mandaswara, Sparsha- ruksha, Druk- prakruta, Akrti- krusha

DASHAVIDHA PAREEKSHA-

Prakriti- vata kapha, Satva- madhyama, Sara- avara, Samhanana- avara, Satmya- avara, Ahara shakti- Abhyavarana Shakti- Avara, Jarana Shakti- Avara, Pramana- Height- 152, Weight- 46 Kg, Vyayam shakti- Avara, Vayastha- Bala

SYSTEMIC EXAMINATION-

Trachea- slightly deviated to rt side

Shape of chest- elliptical

Symmetry of the chest- B/ L symmetrical

Respiratory rate- 19 breath/ min

Types of breathing- Abdomino Thoracic

Percussion- resonance

Breath sound-bronchial

Adventitious sound- wheezing(+), supraclavicular, infraclavicular, infra axillary, supra scapular

Investigation-

Hb%- 12.6 gm%

ESR- 96 mm/hr

RBS-116mg/dl

Sputum- 2+, 3+

CHEST X RAY- Ill defined non homogenous noted in right upper zone with cavities. rest of the lung feild are clear. Hilar shadow- normal, CP angle-free, Impression- Pulmonary Kochs

MATERIAL AND METHOD-

Material type- simple random single case study

Table showing treatment schedule-

Dravya	Dose	Duration	Anupana
Eladi gutika	2vati – TID (1 vati-500mg)	45 days	Usha jala
Vyaghriadi kashaya	15ml-tid	45 days	Ushna jala
ATT	4FDC	45 days	Lukewarm water

Pathya ahara and vihara-

- Ahara- protein rich diet, mamsarasa especially chagamamsa, green leafy vegetables, pomegranate, kharjura, draksha, ghee, nitya abhyanga
- Vihara- rukshannapana, viruddhahara, karvellaka, tambula, hingu, masha, kshara, sahaya janya karma

RESULTS AND DISCUSSION-

Response assessment

Showing changes in the investigation before and after treatment

SUBJECTIVE PARAMETER-

Complaints	Severity	
	BT	AT
Kasa	++ -	
Swasa	+++ -	
Aruchi	+++ -	
Jwara	+++ -	
Weight loss	+++ +	
Dourbalya	++++ +	
Pandu	+	-

OBJECTIVE PARAMETER

Test	3/11/21	18/12/21
Hb%	12.6gm%	14.1gm%
ESR	112mm/hr	62 mm/hr
Total count	13, 600cells / cu.mm	11.4cells/ cu.mm
Sputum AFB	sample A- 2+ Sample B- 3+	Not detected
Body weight	46kg	48 kg
HIV	Resistant	Resistant

No. 12A, BUDA Complex, Mothi Circle, BALLARI - 583101. e-mail : suryadiagnostics@gmail.com

Patient's Name : MR. SHIVARAJ
Age : 22 YRS
Ref. By : Dr. CHANDRA MOULI.G.MBBS.

Date
Sex
Lab No.

REPORT

HAEMATOLOGICAL TEST
 HAEMOGLOBIN 12.6 gm%
 TOTAL COUNT 13,600 cells/cumm
DIFFERENTIAL COUNT
 POLYMORPHS 76 % (50 - 60) %
 LYMPHOCYTES 11 % (20 - 50) %
 EOSINOPHILS 07 % (1 - 4) %
 MONOCYTES 06 % (2 - 10) %
 PERIPHERAL SMEAR Normocytic normochromic blood picture with relative neutrophilic leukocytosis

BIO-CHEMICAL TEST
 RANDOM BLOOD SUGAR (RBS) 102 Mg/dl (70 - 140) Mg/dl

SEROLOGICAL TEST
 WIDAL TEST Negative
 TO Negative
 TH Negative
 AH Negative
 BH Negative
 DENGUE NS1 ANTIGEN Negative
 DENGUE IgG & IgM Negative

URINE TEST
 ALBUMIN Absent
 SUGAR Nil
 MICROSCOPY 2-3 Pus cells are seen/hpf

DISTRICT HOSPITAL, BALLARI. CLINICAL LABORATORY. REQUISITION & REPORT FORM

Name : K. Shivaraj Age : 20 Sex : M
 O.P./IPNo. : 64645 Ward / Unit : Date : 8/11/21
 Clinical Lab No. : 484

HAEMATOLOGY

Parameter	Results	Reference Range
HB%	14.1	gms% M:13-18, F:11-16
Total Count	11.400	Cells/Cumm (4,000-11,000)
Differential Count		
Neutrophils	76	% (40-75)
Lymphocytes	16	% (20-40)
Eosinophils		% (1-6)
Monocytes		% (2-10)
RBC Count	5.218	Million Cells/Cumm (4.5-5.5)
Platelet Count	3.92	Lakhs/Cumm (1.5-4.5Lakhs)
A E C		cells/cumm (40-440)
PCV/HCT		% (40-50)
MCV		fL (80-100)
MCH		PG (27-32)
MCHC		% g/dl (32-36)
BT		min. Sec (2-7 min)
PT		sec (11-16 sec)
APTT		sec (30-40sec)
INR		
D-Dimer		microg/ml (0-0.5microg/ml)
ESR		mm (0-20)
Blood Smear for MP		

BIO-CHEMISTRY

Fasting Blood Sugar		mg/dl (70-100)
Post Prandial Blood Sugar		mg/dl (100-140)
Random Blood Sugar	109	mg/dl (80-140)
Blood Urea		mg/dl (15-45)

Probable mode of action of dravyas used for chikitsa-

Drugs	Action
Trijataka	Deepana, pachana, ruchikara
Shunthi	Deepana, Ruchiprada, Vatakaphahara, Katu, Agni Deepana
Yasthimadhu	Vata Pitta Hara, Bala Varna Krita, Shukrala, Swarya, Trishna, Glani Kshaya Hara
Pippali	Deepani, Vrishya, Rasayani, Rechani, Shwasa, Kasa, Udara, Jwarahara
Draksha	Trishna, Daha, Jeara, Shwasa, Kasa, Kshata, Kshaya, Swarabheda Kasahara, Bhruhmana, Vrishya
Kharjura	Ruchikara, Hridya, Tarpana, Kshatakshaya Hara, Guru, Tarpana, Rakta Pitta Ghana, Tusthi Pusthi Shukrala, Kasa, Shwasa Hara, Deepana
Sita	Kasa, Shwasa, Hikka, Kustha Vrana Hara, Chakshushya
Madhu	Agni Deepana, Varnyam, Hrudy Shodhanam, Ropanam, Sookshma Marganusari, Visha Prashaman, Shwasa Kasa Hara
Vyaghri	Shwasa jita, aruchi hara, jvarahara, vata hara, amadosha hara, bala pusthi kara
Amrita	Tridoshaghna, jwara hara, agni deepana, kasa hara, shwasa hara, pandu hara
Shunthi	Rochaka, deepaka, vrishya,

From the above description it appears that the drug interferes in breaking the pathogenesis of rajayakshma. Drugs like trijataka, pippali acts as ama pachana, deepana pachana and helps in srotoavrodhahara which is the first stage of samprapti.

Kasa- in kasa samprapti the normal vayu attained the pratiloma gati due to srotorodha mixes with the kapha leading to bahuroopa kasa. Vyaghriadi kashaya with katu ushna, teekshna laghu, ruksha gunas chedana srotoshodhana thereby dosha paka especially of sama kapha. eladi gutika helps in the vrana ropana might have initiated the cavity healing and hence relieved kasa.

Shwasa- in rajakashma srotorodha leading to the accumulation of ama.e kapha sthana vata vriddhi. Obstruction leading to the narrowing of airways ad henced shwasa.also the rakta dhatu kshaya leads to less oxyhemoglobin and decrease transport of oxygen to the tissues from the lung. Vyaghriadi kashaya due to katu, tikta rasa, ushna guna lead to agni deepana, abhishynda hara, srotoshodhaka. Eladi gutika also helps in the hemopietic system and provides nutrition to the tissues ad also improve oxyhemoglobin.

Aruchi- dosha prakopa especially sama kapha leads to aruchi and agnimandya at the level of jatharagni, dhatwagni woiing to the amotpatti and rasa vaha srotodusthi in turn cause aruchi.as the kashaya contains pippali, shunthi does the ama pachana, deepama and stimulate the tounge receptors thereby correcting the jatharagni owing to the amapachana in kostha and increase the agni. Eladi gutika mainly havig rochaka action which clarifies the kashaya and tikta rasa ogf jiwha.

Jwara- jwara can be understoos as a condition due to the involvement of rasa vaha sroto dusthi due to the

displacement of agni, due to decreased immunity. this makes the patient more susceptible for infection. Vyaghriadi kashaya is basically from jwara chikitsa does the srotoshodhana, jwara hara, sweda janana and thereby help in controlling the fever.eladi gutika is sheeta bhruhmana and it helps in improve immunity.

Pandu- due to the obstruction in rasa vaha sroto dusthi and apachaya of dhatu ushma rakta dhatu will not get proper nourishment and destruction of poshya rasa dhatu takes place. Due to this the patient develops pandu. Drugs in the vyaghriadi kashaya having ushna, katu teekshna guna helps in resolving sanga in rasavaha srotas. Eladi gutika helps for the formation and vyuhana of rakta poshaka sara bhaga to the destination of rakta dhatu and also does the bhruhmana and tarpana actiob which helps in releiving pandu.

Dourbalya and weight loss - Dourbalya in rajayakshma is mainly due to ojokshaya and chronicity of the roga. Srotorodha leading to dhatu kshaya and chronicity of the roga leads to vata vruddhi and dourbalya.vyaghriadi kashya mainly srotorodha hara .it does mild langhana prior to bhruhmana. In eladi gutika – draksha contain basic elements like manganese, vit B6, thiamine, riboflavin, vit c. arginine leads to the circulation and oxygen supply of the vessels through the release of NO which relaxes the wall of vessels. Alanine, non-essential amino acid found in the draksha are the building block of protein which helps in building strong and healthy muscle protein. kharjura anti-inflammatory reducing esr markes and normalizing the plasma level of anti-oxidants produce significant increase in the body weight.

Conclusion- In the patient of rajayakshma there was marked improvement in both the subjective and

objective parameter. No unwanted effect of the therapy was observed during treatment and during follow up period. So it can be concluded that adjuvant therapy along with ATT are very effective in the management of rajayakshma (pulmonary tuberculosis) and reduces the adverse effect of ATT drugs.

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