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An Integrated Approach To Takayasu Arteritis With Special Reference To *Siragata Vata* : A Case Study

Prof. Dr. Sachinkumar Sahebrao Patil,[1*]
Ph.D. (*Kayachikitsa*), M.D. (*Kayachikitsa*), M.B.A. (H.R.), M.A. (*Sanskrit*), P.G.D.E.M.S., D.Y.A.
Professor and H.O.D., Ph.D. Guide, M.D. Guide, Department of Kayachikitsa, M.A.M.'s Sumatibhai Shah Ayurveda Mahavidyalaya Malwadi,Hadapsar, Pune-411028, Maharashtra State, India.

Dr. Lubna Sadaf Khan,[2]
M.D. (*Kayachikitsa*) Scholar, Department of *Kayachikitsa*, M.A.M.'s Sumatibhai Shah Ayurveda Mahavidyalaya Malwadi, Hadapsar, Pune-411028, Maharashtra State, India.

Abstract :
An inflammatory and stenotic condition of medium- and large-sized arteries, Takayasu Arteritis (TA) is characterized by a significant preference for the aortic arch and its branches. The current medical treatments available for this illness are not very beneficial. In this instance, TA was more effectively treated with Ayurvedic intervention. Siragata Vata, or vitiated Vata Dosha damaging the blood vessels, was the Ayurvedic diagnosis in this case.
The current medical treatments available for this illness are not very beneficial. In this instance, Ayurvedic intervention proved to be more effective in managing TA.

Keywords : Takayasu Arteritis, *Siragata Vata, Vatavyadhi*

Introduction :

Large and medium-sized arteries are affected by this condition, with the aortic arch and its branches showing a strong preference. The pulmonary artery may also be affected. The illness is a panarteritis accompanied sometimes by large cells and inflammatory mononuclear cell infiltrates. Significant disruption and degradation of the elastic lamina, intimal proliferation and fibrosis, and media vascularization and scarring are seen. The lumen narrows either in the presence or absence of thrombosis.

This disease may be caused by immunopathogenic pathways, the exact nature of which is unknown. Circulating immune complexes have been shown to exist in various vasculitis diseases, although it is unknown how pathogenically significant they are.

Malaise, fever, sweats at night, arthralgias, anorexia, and weight loss are among the nonspecific symptoms, which can manifest months before any obvious vascular involvement.(1) Involved arteries frequently show no pulses. When a young lady experiences arterial bruits, differences in blood pressure, and a decrease or absence of peripheral pulses, the diagnosis of Takayasu arteritis should be seriously considered. Only imaging techniques like computed tomography angiography (CTA), magnetic resonance angiography (MRA), or doppler ultrasonography can confirm the diagnosis.

"*Siragat Vata*" is associated with Takayasu arteritis. Any disease exhibiting the symptoms of *Shosha* (atrophy/weight loss), *Shoola* (pain), *Supti* (paresthesia, tingling sensation), *Sankocha* (concentric wall thickening/contracture), *Stambhana* (stenosis/stiffness), and *Khanjata* (limping) can be classified as *Vata*

Vikara (diseases by *Vata Dosha*). Since TA still exhibits all of these symptoms, it can be classified as *Vata Vikara*. More precisely, there is a correlation between TA and *Siragata-Vata*, a *Vata Vyadhi* spectrum disorder. *Manda Sharira Ruja* (light physical aches) The body's manifestations of the *Siragata-Vata* are *Shopha* (inflammation) and *Shosha* (atrophy/loss of weight), *Spandana* (fasciculation), *Supta Sira* (absence of pulsation in the blood vessels/arteries), *Tanavyo Sira* (vessel spasm leading to reduction of lumen/thinning of vessels/stenosis), and *Mahat Sira* (dilatation of vessels/aneurysm).

Vasculitis can present as aneurysms, segmental narrowing, changes in artery calibre, stenosis, and occlusions. *Siragata Vata* can also present as similar symptoms. Another description of TA is an illness without a pulse, with stenosis of the major arteries being a hallmark. In *Siragata-Vata* illness, these symptoms are referred to as *Tanavyo Sira* and *Supta Sira*. Thus, the Ayurvedic diagnosis for this case of TA was *Siragata-Vata*.

Case presentation :

A 39 year old female patient, presented in the OPD of Sane Guruji Arogya Kendra, complaining of tingling sensation and numbness in both upper limbs since 4 months. She had a feeling of tiredness and generalised fatigue accompanied by giddiness. She experienced chest pains on and off.

The patient has been experiencing these complaints for 4 months. She did not consult for these complaints anywhere before this.

She had no history of any comorbidities or any other medical illnesses. She was operated for right tympanoplasty back in 2015.

There was no history of any known drug or food allergies and had no kind of addictions.

In family history, her brother was a known case of hypertension.

CLINICAL FINDINGS –

On physical examination, patient was anxious, body weight was 59 kg, height was 150 cm and body temperature was 37.5°C. Patient had *Vata Pitta* pre dominance *Prakriti* with *Madhyama Sara* (medium strength), *Madhyam Samhanana* (medium built), *Sama Pramana* (proportionate body), *Madhyama Satmya* (medium homologation), *Madhayam Satva* (medium mental strength), *Madhyam Vyayamshakti* (medium capability to carry on physical activities), *Madhyama Ahara Shakti* (medium food intake capacity) and *Uttama Jaranashakti* (optimum digestive power).

On cardiovascular examination, pulse in both upper arms was absent. Pulse in lower extremities was normal. No bruits on the carotid and renal artery were found. Blood pressure could not be measured from the upper limbs. BP was 120 mmHg systolic measured from the lower limbs. Auscultation of the chest showed no heart murmurs. Pulses of the right and left brachial and radial arteries were also not palpable. Both the carotid arteries were palpable. Heart rate and respiratory rate was 86/min and 20/min, respectively.

On neurological examination, higher mental function-attention, memory, and speech were normal. On motor examination, bulk, tone, power and coordination of upper limbs and lower limbs were normal.

LAB INVESTIGATIONS AND DIAGNOSIS –

CT AORTA ANGIOGRAPHY revealed complete occlusion of visualised portion of bilateral common carotid arteries with significant circumferential narrowing of proximal portion of left subclavian artery.

Complete occlusion of proximal portion of superior mesenteric artery.

Above findings are suspicious of large vessels vasculitis (Takayasu aortoarteritis).

Diffuse atherosclerotic changes within the descending thoracic, abdominal aorta and its braches.

Laboratory investigations Values

Hematological investigations

WBC	11700 th/uL
Neutrophils (%)	60.3
Lymphocytes (%)	27.1
Monocytes (%)	6.7
Eosinophils (%)	5.2
Basophils (%)	0.7
Haemoglobin (g/dL)	11.7
Platelets (lac/uL)	3.28
ESR (mm/h)	**32**
CRP (mg/L**)**	**5.7**

Biochemical investigations

Blood urea (mg %)	14.4
Serum creatinine (mg/dL)	0.52

Liver function test

SGOT (IU/L)	16
SGPT (IU/)	13.1
Alkaline phosphate (IU/L)	127.2

USG (Abdomen and Pelvis) – NAD
ECG – Sinus rhythm
2D ECHO – Normal echo study
Urine analysis (routine and microscopic) Within limits
Serology - Negative

TREATMENT

There is no specific treatment advised for *Siragata-Vata* in classical texts. Hence, general line of treatment of *Vata Vikara viz. Snehana* (oleation), *Swedana* (sudation) *Niruha Basti* (enema mainly with decoction), *Anuvasana Basti* (enema with medicated oil), and *Nasya Karma* (nasal therapy) was adopted for the patient.[(2)] According to *Ayurveda*, *Siragata-Vata* is a disease of *Madhyama Roga Marga* (disease pathway related to vascular system and other vital organs); hence, *Basti Karma* was also adopted for treatment. *Eranda Sneha* in the dose of 20 ml with milk was given for first three consecutive nights for *Koshtha Shuddhi* (evacuation of the bowel). *Shastikshali Pinda Swedana* was done for 16 days starting from the 1st day. From 4th day, *Erandadashamuladi Niruha Basti* [(3)] alternated with *Anuvasana Basti* of *Sahchara Taila* [(4)] was given for 16 days. After the completion of *Basti* procedure, *Shirovirechana* (nasal therapy for purification), a form of *Nasya Karma* with *Anu Taila* (oil) in a dose of 06 drops (0.4 ml)/nostril was done on alternate days for 7 days. Ayurvedic oral medicines such as *Vatavidhwansa Rasa*-1 g (500mgx2tab), *Dashamula Kvatha*-40 ml. *Brihadvatachinamani Rasa* was prescribed initially only for 1 month. *Chyavanaprasha Avaleha* in the dose of 10 g with milk was advised twice a day.

Tab Wysolone (prednisolone) 20mg twice daily for 7 days, followed by 10 mg thrice daily for 7days, 10 mg twice daily for 7 days, 10 mg once daily for 1 month.
Tab Ecosprin 75mg once daily.
Tab Pletoz (Cilostazole) 100mg twice daily for one month

DISCUSSION

TA disease is having the close resemblance with *Siragata-Vata*. The disease is included in *Vata Vyadhi*. General line of treatment of *Vata Vikara,* namely *Snehana*, *Swedana, Asthapana, Anuvasana* and *Shirovirechana* was adopted in the patient. *Mridu Virechana* was given with castor oil. *Shastikshali Pinda Swedana* which is a combination of *Abhyanga* (massage) and *Mridu Swedana* (mild sudation) was given to the patient. It was done on whole body as TA can affect multiple organs. It is shown to provide a good result in the management of various *Vata Vyadhi.* [5,6] In TA, occlusion and stenosis of artery and aorta are more prominent. *Shiragranthi* (knot in micro-channels) type of *Srotodushti*. *Erandadashamuladi Niruha Basti* is helpful in treating *Vata Kaphaja* (diseases due to *Vata Dosha* and *Kapha Dosha*) disorders, *Pakshaghata* etc. It has *Srotoshodhana* (purification of micro channels) property hence it may remove occlusion of vessels. Bilateral common carotid arteries and left subclavian artery were affected in the case which affected the blood supply for both arms and the head. *Shirovirechana* is indicated for the diseases above the clavicle region. Hence, *Shirovirechana* was done with *Anu Taila* which has *Vata Kaphahara* (suppression and removal of deranged *Vata Dosha* and *Kapha Dosha*) property. [7] It may be helpful in removing the obstruction of *Vata Dosha* at supra clavicular region. *Brihadvatacintamani Rasa* is indicated in all type of *Vataja* (disease due to *Vata Dosha*) and respiratory diseases.[8] *Dashamula Kwatha* is useful in all types of *Vataja* and respiratory disorders and has *Tridoshaghna* (alleviating deranged *Dosha* of the body) property.[9] *Vatavidhwansa Rasa* is useful in all types of *Vataja* (neurodegenerative) disorders.[10] The combination of all these drugs may treat all the manifestation and complication due to TA. *Brimhana* (nourishment up to tissue level) is the main treatment of *Nanatamaja Vata Vyadhi* and *Rasayana* must be prescribed to any chronic *Vata Vyadhi*.[11] *Brahadvatacintamani Rasa* has *Rasayana* property and is popular in Ayurvedic practices for various diseases of rheumatic spectrum. *Chyavanaprasha Avaleha*[12] is important for longer uses as *Rasayan* and is indicated in chronic *Vatavyadhi, Nanatmaja Vata Vikara* and *Avrita Vata Vikara*.[13] Thus, these combinations of Ayurvedic oral medications areuseful in treating the patient.

The modern treatments of TA have lots of adverse effects.[14] There is a need to watch liver profile at certain interval as changes in liver profile are more prominent during high dose steroid administration. In the present case, ESR levels were within normal limits after 4 months of Ayurvedic management. This may suggest the safety of, since very few cases published in Pub Med reported this Ayurvedic regime in this case. Pulse was noticeable in both upper limb and BP was measurable from upper limbs. This might be considered as remarkable improvement improvement even after using high doses of steroid. It is now accepted that approximately half of patients of TA which are treated with steroids may respond.[15] There is uncertainty in success and also more side effects are associated with use of steroid, case study shows that Ayurvedic management may be beneficial in the management of TA.

CONCLUSION

The case study shows that Takayasu arteritis (TA) was managed with Ayurvedic medication and *Panchakarma* procedures with satisfactory outcome. More studies are required to be done to confirm these findings and establish the place of Ayurvedic line of treatment in the management of Takayasu arteritis (TA).

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Disclosure of conflict of interest

The authors declare that there was no conflict of interest regarding the publication of manuscript

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Author's Short Biography:

Dr Sachinkumar Sahebrao Patil M.D. (Kayachikitsa) Medicine, Ph.D. (Kayachikitsa) Medicine, M.B.A. (H.R.), M.A. (Sanskrit), P.G.D.E.M.S., D.Y.A. Professor and H.O.D., Ph.D. Guide, M.D. Guide, Department of Kayachikitsa, M.A.M.'s Sumatibhai Shah Ayurved Mahavidyalaya, Malwadi, Hadapsar, Pune – 411028, Maharashtra State, India. He is working as an Ayurved Physician and Panchakarma Specialist since last 18 Years. He is a BOARD OF STUDIES MEMBER for Paraclinical Ayurved Board of Maharashtra University of Health Sciences (M.U.H.S.), Nashik. He is a FACULTY MEMBER for Post Graduate Paraclinical Ayurved Board of M.U.H.S., Nashik. He is working as a Research Faculty for Research Methodology and Medical Statistics for M.U.H.S., Nashik. He is a Ph.D. GUIDE for 08 Ph.D. Kayachikitsa (Medicine) students and M.D. GUIDE for 28 M.D. Kayachikitsa (Medicine) students out of which 21 M.D. Kayachikitsa (Medicine) students have been already passed out. His research experience is 15 Years. His research interests in Anxiety disorder, Diabetes Mellitus, Obesity, Hyperacidity, Diarrhoea, Anaemia, Infertility etc.