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MANAGEMENT OF *SIRAGATAVATA* WITH SPECIAL REFERENCE TO TAKAYASU ARTERITIS – A CASE REPORT

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Abstract

Takayasu Arteritis is a chronic rare inflammatory large vessel vasculitis predominantly affecting aorta its major branches and occasionally the pulmonary artery. It is also known as aortic arch syndrome. Takayasu Arteritis present before the age of 40 and is about 10 times more common in females. The symptoms may vary according to the degree and nature of blood vessel obstruction. A 24 year old male who is a not a Known case of diabetes mellitus or hypertension came with the complaints of chest pain, weakness along with exertional dyspnoea since 2 months. On examination there was a variation in blood pressure in right and left upper limb of around 10mmHg and the radial and brachial pulses are feeble in both the upper extremities. The disease Takayasu arteritis cane be understood as *Siragatavata* which is coming under *Vatavyadhi*. For the patient *Shilajathu Lauha Rasayana, Yashtimadhu Rasayana* along with *Nitya Virechana* with *Eranda Taila* and *Shunti Kashaya* was given. The patient got a 50% of relief after the treatment.

Key words- Takayasu Arteritis, *Siragatavata*, Ayurvedic Intervention

Introduction

Acharya Charaka has coined the term *Siragatavata* in *Vatavyadhi Chikitsa* in *Chikitsa sthana.*. *Vata Dosha* is the life, strength and the sustainer of the body. *Vata* is all- pervasive, and *Vata* is the controller of everything in the universe. There are five types of *Vata – Prana, Udana, Samana, Vyana* and *Apana*. Diseases caused by these five varieties are innumerable. However the principal ailments caused by them are eighty in number. Aggravation of *Vata Dosha* in *Siras* (vessels) gives rise to *Manda Ruk* (mild pain), *Sopha* (oedema in the body) *Shushyathe Spandayate* (emaciation and throbbing pain), lack of pulsation in the vessels, and thinness or excessive thickness of the vessels.

Takayasu arteritis was named after Mikito Takayasu by Yasuzo Shinmi in 1939. This disease is also known as pulseless disease. Takayasu arteritis is rare but commonly seen in south East Asia, Mexico, Japan and India. Takayasuarteritis[1] is a chronic granulomatous inflammation of large arteries characterised by nonspecific inflammatory symptoms such as arthralgia, myalgia, hypertension, headache, fever, and weight loss. The vessels most commonly affected are aorta, carotid, ulnar, brachial, radial, and axillary arteries. Clinical examination may reveal loss of pulse, bruits, hypertension and aortic incompetence.

The distribution of involvement is classified into four types[2]

Type 1- localised to aorta and its branches
Type 2- localised to the descending thoracic and abdominal aorta

Type 3- combines features of 1 and 2
Type 4- involve the pulmonary artery
There is no specific laboratory marker for takayasu arteritis. However erythrocyte sedimentation rate can be considered as best available routine laboratory indication. Diagnosis can be confirmed by magnetic resonance angiography (MRA) and computed tomography angiography (CTA) or Doppler ultrasound**.** The steroids are considered as the mainstay treatment for Takayasu arteritis. That becomes major part of treatment despite of lack of concrete scientific evidence and even evidence of associated side effects of steroid treatment.

Materials and methods

Case report

Presenting concerns

A 24 year old male patient who is not a k/c/o hypertension and diabetes mellitus was apparently well before 1 year, one day while having food he had a sudden onset of choking along with the chest pain after few minutes he felt fatigue along with coldness in the extremities. He was immediately taken to the hospital and emergency management was given to the patient. Later on detailed examination and on angiogram the disease was diagnosed to be Takayasu arteritis. And for this he was on medications like steroids, blood thinners and other supplements. On discontinuing some medications for past two months he again started to suffer from chest pain with excessive fatigue, nausea and breathing difficulty along with numbness of upper limbs on and off .chest pain is of dull in nature without radiation. He had a remarkable reduction of body weight i.e. around 8 kg in 3 months. The condition restricts him from doing even routine physical activities with some amount of exertion

Aggravating and relieving factors- aggravated on strenuous physical activities and occasionally o having food and it relieves on taking rest

Personal history

Diet- non vegetarian

Appetite- reduced

Micturition- regular 4-5 times/ day

Sleep- sound

Habits- nil

Clinical findings

On examination patient was moderately built and nourished. On cardiovascular examination apex beat was palpable in the fifth inter coastal space. On peripheral vascular examination on inspection peripheral pallor was present in the both the upper limb hair loss and muscle wasting and also present in both the upper limbs. Carotid pulse was palpable but radial and brachial pulse was feeble on palpation. And there was a 10mmhg difference between the blood pressure of both left and right upper limb.

Ashta Sthana Pareeksha

Nadi- 84 /min

Mutra- Prakrutha

Mala- Prakrutha

Jihwa- Upalipta

Shabda- Prakrutha

Sparsha- Sheethasparsha

Drik- Prakrutha

Akruthi- Prakrutha

Dasha Vidha Pareeksa

Prakruthi- Vata-Kapha

Vikruthi- Vatapradhanatridosha

Satva- Avara

Sara- Madhyama

Samhanana- Madhyama

Pramana- Madhyama

Satmya- Madhyama

Aharashakthi – Abhyavaharanashakthi- Avara

Jaranashakthi- Avara

Vyayamashakthi- Avara

Vaya- Madhyama

Diagnostic assessment criteria

Magnetic resonance angiogram was indicating several luminal stenosis of distal right and left subclavian artery with complete occlusion of distal right and left artery. Mild luminal narrowing with reduced opacification in right PPA at origin of dorsum of foot. Mild lumen narrowing of left dorsal pedis at the origin was also seen.

Diagnostic reasoning

A diagnosis of takayasu disease was done as the patient satisfied four of six criteria mentioned according to the diagnostic criteria framed by the American college of rheumatology[3] and also according to ITAS -2010[4] the patient scored around 8 which shows an active case of takayasu arteritis . And it is diagnosed ad type 1 takayasu arteritis

Any disease can be considered as *Vatavyadhi*[5] if there is – *Shosha, Shola, Supti, Sankocha, Stambhana* etc. as all these symptoms are present in takayasu arteritis it can be considered as *Vatavyadhi* specifically *Manda Shareera Ruja , Shopha, Shosha, Spandana, Suptasira, Tanavyosira* and *Mahatsira* are present so we can consider this condition as *Siragatavata*[6]

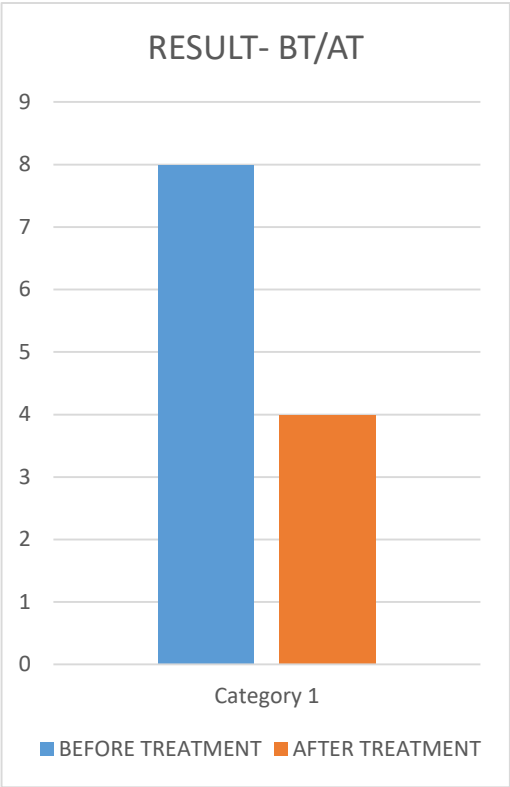
Therapeutic intervention

Treatment for *Siragatavata* is similar to *Vatavyadhi Chikitsa* as specifically *Chikitsa* for *Siragatavata* is not mentioned. As we diagnose it as *Vatavyadhi* we followed *Rasayana* treatment, where as a *Mrudu Shodhana* prior to the *Rasayana* we gave *Eranda Taila* with *Shunti Kashaya* and as *Rasayana Shilajathu Lauha Rasayana* (4-4-4) and *Yashti Madhu Rasayana* (2-2-2) was prescribed.

Result

Patient condition was assessed based on Indian takayasu clinical activity score 2010. This assessment criteria includes systemic, abdominal, cardio vascular, genitourinary, renal, and nervous system. A total score of 51 is possible in this scoring and a score of 4 or more is considered as active and a score less than 4 is considered as inactive

Here the patient underwent treatment for a duration of one month and score before the treatment was 6 and later after the *Rasayana* and *Virechana* treatment the score reduced to which almost make the disease inactive. The variation in the blood pressure in both the upper limbs is still persisting while other symptoms like myalgia, syncope, weight loss etc. reduced to a marked extend. And on overall patient experienced a 50% improvement after the treatment



Discussion

Discussion about the disease

Takayasu arteritis is a rare chronic inflammatory disease majorly affecting aorta and its other branches. The common line of treatment for takayasu disease includes azathioprine, methotrexate and surgeries like angioplasty. takayasu arteritis can be understood as *Siragatavata* in Ayurveda. The clinical features of *Siragatavata* shows true resemblance with the takayasu arteritis such as *Manda Shareera Ruja Shosha Shopha Spandana Supta Sira Tanva Sira* and *Mahat Sira.*
Samprapti of *Siragatavata- Acharya Charaka* described *Siragatavata* as one among the *Vatavyadhi. Nidanam*[7] for this *Vyadhi* is same as *Vatavyadhi Nidana* such as intake of dry, cold deficient and light food, improper management of excessive expelling of *Dosha* or bloodletting, by excessive fasting, swimming, exercises, suppression of natural urges, trauma, abstraining from food, injury to vital areas etc.

These causes aggravation of *Vata Dosha* and due to *Kha Vaiguya* it will launch in the vascular tissue causing the *Manda Ruk, Shopham, Shosham, Thanva Sira, Mahat Sira* types of presentation

Pathophysiology of takayasu arteritis[8] - Etiology of takayasu arteritis is still unknown. As the early changes there will be a mononuclear infiltrate with peri vascular cuffing of vasa vasorum. Later mononuclear inflammation of tunica media leads to granulomatous changes, giant cells and patchy necrosis of the tunica media. This panarteretic inflammatory infiltrates causes marked thickening of the artery.

Discussion on *Rasayana Chikitsa* - Always *Rasayana Chikitsa* improves the quality of the treatment. So prior to the administration of *Rasayana* a *Mrudu Shodhana* is given with *Eranda Thaila* and *Shunti Kashaya* which will helps as a catalyser which enhances a reaction.

Shilajathu Lauha Rasayana.-Shilajathu Lauha[9] is *Tridoshaghna* which is of *Anushna Sheetha Veerya, Kashaya Katu Rasa* and of *Katu Vipaka*. Even though *Shilajathu Lauha Rasayana* is *Sarvaroga Shamani, Shilajathu* have other *karma* such as *Lekhana* and *Medaschedakara*, which will act as *Srotoshodhaka* and hence it will reduce the thickening of the arteries. *Shilajathu* also contains fulvic acid which enhances the body's capacity to fight inflammation

Yashti Madhu Rasayana - Yashtimadhu is of *Madhura Rasa, Guru-Snighdha Guna, Sheetha Virya*, and it is *Vatapittahara. Yashtimadhu* is also have anti-inflammatory action as it contains triterpene, saponins, flavonoids, alkaloids, glycyrrhizins, glabridin etc. Since it's a single clinical case study there needed to be more

clinical case series documentation, well designed suitable clinical effectiveness study to formulate the ideal scientific evidence and clinical practice guidelines with Ayurveda management on Takayasu arteritis disease.

Conclusion

The case is common in case of female patients, but as the patient is a male it is quite uncommon in the population. The male patient of aged around 24 showing non-specific clinical symptoms such as fatigue sudden weight loss etc. and while investigations it shows occlusion and stenosis in major arteries. The current bio medical interventions for Takayasu arteritis lacks significant degree of effectiveness and even there are observations of possible adverse drug reactions due to therapeutic agents involved in the treatment. Thus the Takayasu arteritis disease management requires better efficious and safe approach of management, which may needs to evaluate from traditional systems of medicine like Ayurveda.

The sudden diagnosis and appropriate treatment to the patient reduced the chances of stroke, myocardial infarction or any such complicaions. Patient improved significantly in term of symptom reduction, overall health under Ayurveda care, however There is need of further case series , well designed effectiveness evaluation studies on ayurveda management with takayasu arteritis disease to establish ideal scientific evidence and formulating better clinical practice. And within a short period of time we were able to bring an active TA disease to an inactive TA disease

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