Aneurysm – An Ayurvedic Perspective

1Kavya C. Prakash, 2Dr. T. Sreekumar, 3Dr. Smitha Mohan P. V., 4Dr. Shaji K., 5Dr. Athulya A.

1II year P. G. scholar, 2Professor & H. O. D., 3Professor, 4Associate Professor, 5Assistant Professor
Department of Shalyatantra
P. N. N. M. Ayurveda Medical College
Cheruthuruthy

Abstract- An enlarged arterial segment greater than its normal diameter is said to be aneurysm. They can be classified into various types on the basis of their morphology, wall composition, location and etiology. The most common type is found to be true, fusiform, atherosclerotic aortic aneurysm. The currently prevailing management protocol is either watchful waiting or surgical management based on the extent of dilatation in terms of diameter of the affected arterial segment. Aneurysm can be correlated to any vata condition affecting the arteries, considering its clinical features. This is an attempt to thoroughly understand the concept of aneurysm and interpret it in the terms of Ayurvedic perspective. It includes the explanation of arriving at a particular Ayurvedic diagnosis of aneurysm, its pathogenesis and treatment. It also highlights the need of clinical research to be done in this arena to explore the effective Ayurvedic treatment options.

Keywords: Aneurysm, Ayurveda, Sira, Dhamani, Siragranthi, Siragranthi

I. INTRODUCTION
Aneurysm refers to the abnormal permanent localized dilatation of a segment of artery that has the tendency to expand and rupture. The extent of dilatation is debatable, but one criterion is an increase in the diameter of at least 50% greater than the expected diameter of the same segment in unaffected individuals of same sex and age. [1] They can be classified into various types on the basis of their morphology, wall composition, location and etiology. Based on morphology they are classified as saccular, fusiform and dissecting aneurysm. True and false aneurysm constitutes another classification according to the involvement of layers of arterial wall. In true aneurysm, all layers of arterial wall are intact whereas in false aneurysm, the sac will be lined by a fibrous layer and it occurs mostly due to traumatic causes. When aneurysm develops in the aorta, it can be called as aortic aneurysm. Peripheral aneurysm is the other type which includes aneurysm located at other sites as seen in popliteal, femoral, carotid and other arteries.

[2] The most common type is found to be true, fusiform, atherosclerotic aortic aneurysm. The currently prevailing management protocol is either “watchful waiting” or “surgical management” based on the extent of dilatation in terms of diameter of the affected arterial segment. [3] Owing to its asymptomatic nature in majority of cases, timely diagnosis and intervention is missed. Since it ends up in high mortality rate on rupture, early detection is the key solution to avoid it. So, regular screening and surveillance, especially in high-risk individuals can bring down the morbidity and mortality rates. Be it any type, aneurysm can be correlated to any vata condition affecting the arteries, considering its clinical features. In Ayurveda, various references pertaining to cardiovascular activities are mentioned in various contexts. When selected judiciously, these references can be made use of, in the treatment of aneurysm. Thus, this is an attempt to thoroughly understand the concept of aneurysm and interpret it in the terms of Ayurvedic perspective.

II. AIMS AND OBJECTIVES
1. To understand the concept of aneurysm in Ayurvedic terms.
2. To develop a treatment principle or protocol.
3. To study and see the relation between various Ayurvedic diagnoses and aneurysm.

III. METHODOLOGY
This is a conceptual type of research and the present review is prepared after thoroughly undergoing
1. Critical reference of Ayurveda texts especially brihattrayee and laghutrayee regarding the explanations of sira, dhamani, hridaya, siragranthi, hridroga and siragata vata.
2. Experiences shared by renowned practitioners.
3. Relevant internet search.
4. Various articles about aneurysm.

IV. AYURVEDIC PERSPECTIVE
4.ISIRA AND DHAMANI
Sira is mentioned as the tubular structure which performs the function of circulation and transportation of liquid materials like blood, lymph and other fluids. In this aspect, the term sira includes arteries, veins, capillaries, lymphatics, nerves and ducts. Broadly speaking, sira is considered as vessels in some instances and veins only in some other contexts. They are of different types according to colour. They are tamra sira, neela sira, shweta sira and aruna sira. Out of these types, tamra sira and aruna sira carrying red coloured blood can be considered as arteries. [4]

Dhamani is also tubular or cord-like structure which is filled with vata dosha, and having pulsations. Since it is having pulsations unlike veins and nerves, Dhamani can be considered as artery. So according to Ayurvedic physiology, along with rakta, dhamani also carries vata dosha. Udhwagami dhamani and adhogami dhamani may be correlated to Arch of Aorta and Abdominal Aorta.
with its branches respectively. So, differentiation of sira and dhamani as arteries is still a controversial topic and we can adopt both as arteries contextually which may help in framing the treatment principle of aneurysm. [5]

4.2 PATHOGENESIS or SAMPRAPTI
An enlarged arterial segment greater than its normal diameter is said to be aneurysm. The exact cause of this disease is unclear, but causes like atherosclerosis, smoking, hypertension, increased age, male sex, connective tissue disorders, previous history of aneurysmal disease etc are the risk factors for developing this disease. With the increase in the size of the aneurysm, symptoms like dull aching pain may develop and there may be a feeling of pulsatile mass in its location, or may remain asymptomatic till complications like rupture occurs. Any factor which causes loss of structural integrity of arterial wall will ultimately lead to its weakening and expansion. Vata dosha is responsible for the circulation of blood in the artery, hence any imbalance in the vata dosha will lead to arterial diseases. When kapha and pitta dosha starts accumulating in blood channels, it causes avarana (blockage). Due to this circulatory blockage, vata gets affected which causes vegapratibadha and structural defects caused due to vitiated kapha and vata localised in the specific arterial segment will result in dilatation of artery and formation of aneurysm. If a person suffering from such condition continues to indulge in ahara and vihara which causes further imbalance of dosha like oily food, milk and dairy products, sugar products, abstinence from physical activities, improper lifestyle, mental and emotional stress; it would certainly lead to changes in the artery which would result in complications. [5]

_Apathya ahara vihara, Chittodwega, Abhigata, Anubandha roga_

↓

Kapha pitta dushti

↓

Sthanasamsraya in arteries

↓

Srotorodha / Avarana

↓

Vata vridhi

↓

Saithilya, Adhmana, Riktata of Sira

↓

Aneurysm

Samprapti of Aneurysm

4.3 TREATMENT or CHIKITSA
Mostly aneurysms remain asymptomatic, till it is found incidentally on physical examination or on investigations like USG. Early detection and prevention of complications in people who are at risk is the best method that can be adopted. That is why the modern approach is “watchful waiting”. Watchful waiting is the method of screening and surveillance in those high-risk individuals with the help of USG either once in 6 months or once in a year, to assess the diameter or growth rate of the aneurysmal sac. Surgical intervention is done once the aneurysm exceeds certain limit of arterial diameter, for instance in aortic aneurysm, it is indicated if arterial diameter is more than 5cm in females and 5.5cm in males or when the growth rate is more than 1.5cm/year or if there is a complication like rupture of aneurysm. The success rate of such surgical measures is low, [6] which glorifies the importance of alternative measures in unruptured cases of aneurysm.

Ayurveda which is a holistic system of medicine always insists in prevention of a disease in its early stage rather than treating its complications in a later stage. This concept is evident in the context of Shat kriyakala and can be used in prevention of aneurysm by inhibiting the risk factors. [6] Any vatika condition affecting arteries can come under the purview of aneurysm. Siragata vata is one such condition. Mandaruk (mild pain), sopha (edema), spandate (pulsatile), suptata (numbness), tanyu mahatyu sira (thinning and engorgement of blood vessels), sira kunchana (vasoconstriction), sira poorana (fullness of blood vessels), sira adhmana (vasodilation) and sira riktata (emptiness of blood vessels) are the clinical features of Siragata vata, which are similar to aneurysm.[7]

_Deepana and pachana can be administered in the initial phase to curb the accumulated kapha and pitta, and also act as srothorodhahara. After removing the srothorodha, snehana can be considered as an important treatment measure to curb vitiated vata dosha. [8] Vinihanti sangam (clears the obstruction in channels) is the function of snehana karma. Hence it eliminates the obstruction in blood vessels and improve blood circulation to the affected arterial segment. Bahya snehana done in the form of Pichu or Urovasthi is found to be effective in cases of aneurysm. It will benefit more if done with medicated ghee preparations like Dhanvantara ghrita or Ajiruna ghrita. Rasayana therapy also plays an important role in preventing further development of aneurysm. It is to be done after a mridu soolhana procedure so that it increases the efficacy of rasayana therapy. Along with these procedures, internal medications like Gandharvavastadi kashaya, Maharaja prasaririni taila, Siva Guilika, medications prepared with
Shilajit, Rasayana drugs are also found to be effective in such unruptured conditions. Treatment protocol or medicines mentioned in the context of Siragranthi as well as Hridroga can also be incorporated while planning the treatment of aneurysm. In modern medicine, brisk exercises are advised for mild cases of aneurysm. So, Yoga which is meant for both physical and mental wellbeing will definitely have a positive impact over this disease. Meditation techniques like Pranayama of mild nature can make the mind calm and in effect reduces the risk for developing this condition. Pathya includes Satwika diet, practice of yoga, abstinence from avoidable risk factors and such other measures to maintain a balanced state of both saririka and manasika dosha.

V. DISCUSSION

Aneurysm is an untouched area of research in Ayurveda. Despite the availability of effective medicines and procedures useful in uncomplicated cases, none of them are being documented. This is an attempt to throw some light over this topic in terms of Ayurvedic principles so that clinical research can be conducted upon. Aneurysm cannot be considered as a single named disease according to Ayurveda because of its similarity of features in various ailments like Siragata vata, Sira granthi, Gulma etc. Both sira and dhamani can be correlated to arteries according to its contextual meaning. Thus, similarity of symptoms of Siragata vata, Sira granthi etc with aneurysm can be substantiated.

Gandharvavastadi kashaya, Maharajaprasarini taila, Siva Gulika, Shilajit preparations, Rasayana drugs are some of the effective internal medications that are prescribed by renowned physicians in the management of aneurysm. Both Gandharvavastadik Kashaya and Maharajaprasarini taila are medicines mentioned in the treatment of vata vyadhi. Shilajit is having hypolipidemic, antioxidant and anti-inflammatory properties. Siva gulika has anti-inflammatory and immunomodulatory property. Several external procedures like pichu, urovasthi, lepa etc can be administered for symptomatic relief.

Here, vata dosha is the main culprit in the development of aneurysm. So, snehana can be done in order to control the vitiating vata dosha and prevents the progression of this disease. Sodhana chikitsa cannot be considered as a suitable treatment option since the patient is already in alpa bala avastha and roga is prabala. Samana chikitsa is the desired treatment option along with mrdu sodhana. Treatment protocol has to be framed according to the patient specific conditions considering the dosha avasta, prakriti, vayus, associated vyadhi etc.

VI. CONCLUSION

Aneurysm is one of the important diseases affecting arterial system. Ayurvedic measures can be administered to prevent the further expansion and rupture in uncomplicated cases. Though siragata vata, sira granthi, hridroga, gulma are found similar to cases of aneurysm, siragata vata can be considered as the most appropriate diagnosis. Accordingly, chikitsa can be adopted in cases of aneurysm considering patient specific symptoms and dosha avasta. Several medicines like arjunaristam, partha vati, gandharvavastadik kasha, maharajaprasarini taila, siva gulika, medications prepared with shilajit and rasayana drugs are found effective in such cases. Also, external treatment options like urovasthi, pichu, lepa etc help in removing the pathology and strengthening the arterial walls by virtue of its vatamulomana property. Thus, by following the surveillance protocol or ‘watchful waiting’ and resorting to Ayurvedic treatment options, aneurysm can be controlled. Despite of effective treatment options for aneurysm in Ayurveda, it is still an untouched area in the field of clinical research. So, it is the need of the hour to document such effective methods by conducting clinical research.

REFERENCES:
2. Das Somen, A Concise Textbook of surgery, 7th edition, Published by Dr S. Das, 13, Old Mayor’s Court, Kolkata-700005, Page No. 209-210