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Yogic Treatment of Disease Research Paper
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Ananda Seva Yoga Therapy

Peripheral vascular disease, also called Arteriosclerosis, is the term used to describe several cardiovascular diseases, including those which involve the blood vessels. It refers to any disease or disorder of the circulatory system outside of the heart and brain. When it affects the arteries of the heart, it is called coronary heart disease (coronary artery disease). In peripheral vascular disease, which is the most common disease of the arteries, they become hardened and the blood vessels lose their "elastic" effect. It can occur because of fatty deposits on the inner lining of the arteries (atherosclerosis), calcification of the wall of the arteries, or thickening of the muscular wall of the arteries from chronically elevated blood pressure (hypertension). This gradual process can begin in early childhood. Of the peripheral arteries, those of the legs are most often affected, and other arteries affected include those that supply blood to the kidneys and arms.

Some other causes of peripheral vascular disease include:

~ A blood clot can block a blood vessel

~ Diabetes- over time the high blood sugar level of those with Diabetes can damage blood vessels, making them more likely to become narrowed or weakened

~ Inflammation of arteries (arteritis), can cause narrowing or weakening of the arteries

~ Infection – inflammation and scarring caused by an infection can block, narrow or weaken blood vessels, Salmonella and Syphilis have been know to infect and damage blood vessels

~ Structural defects acquired at birth

~ Injury- a car accident or bad fall can damage blood vessels

The primary risk factors for peripheral vascular disease include hypertension, diabetes mellitus, smoking, and obesity. Other risk factors can include a positive family history of premature heart attacks or strokes, age 50 or older, sedentary lifestyle, and high cholesterol.

The symptoms depend partly on which artery is affected and to what extent the blood flow is restricted. Some symptoms can include high blood pressure, multiple kidney infections, poor circulation in the toes and fingers, bluish discoloration of the skin, stroke or gangrene. Also there could be pain in the extremities while walking or climbing stairs, most commonly in the legs. Peripheral vascular disease can also cause loss of hair on the legs and impotence. Having symptoms while at rest is a sign of more severe disease.

The course of medical treatment depends on the underlying cause of the disease, the severity of the person's condition, and their overall health. Reducing risk factors can prevent it from getting worse and could also reverse the symptoms. This includes:

~ quitting smoking

~ regular exercise of at least 30-45 minutes, 3 times a week

~ eating nutritious, low-fat foods, avoiding high-cholesterol foods

~ maintaining a healthy weight

~ following recommendations for controlling high blood pressure and high cholesterol

~ if Diabetic, follow healthcare provider's recommendations for controlling blood sugar and taking care of the feet

The next option would be a percutaneous balloon angioplasty technique for enlarging an artery that is blocked or narrowed without surgery. It is not a permanent solution for most people. A stent can be implanted for severely blocked arteries or those that close up again after angioplasty. The most affective medications are those that help prevent the development and progression of atherosclerosis. There are two medications that have been FDA approved for direct treatment of intermittent claudication (the pain that comes and goes when walking or climbing stairs). These are Pentoxifylline and Cilostazol. Other medications for peripheral vascular disease include antiplatelet agents, like aspirin and ticlopidine, anticoagulant agents, like Coumadin and Lovenox, and finally Thrombolytics, which dissolve existing blood clots.

Surgery is the most extreme measure which must be taken in some cases. The most common operation is a bypass of the blood vessel. With modern treatments, surgery is required only for severe atherosclerosis which is unresponsive to medication and angioplasty.

Now let us look at this condition from a Yogic perspective. Since it affects the circulatory system, the Chakra that we will focus on is the Heart Chakra, Anahata. Pranic displacement may involve Prana Vayu and Vyana Vayu, since they govern circulation in the body. The Kosha that is most affected is Annamayakosha, the physical body, but I believe that Kamamayakosha may be affected as well. The concerns for the maintenance of the physical body are not given priority, therefore the individual's diet, lifestyle and separation from the body could result in a gradual build-up of ama in the blood vessels. From an Ayurvedic viewpoint, there is a kapha imbalance, a sluggish-ness in the blood vessels caused by too much earth and water. If the person has inflammation in the body, causing the blood vessels to thicken, then it would be a pitta issue as well. These ideas will all be

taken into account when preparing a Yoga Therapy program for someone with peripheral vascular disease.

The first thing I want to focus on for this condition is relaxation and rejuvenation. Oftentimes we get into our routines and schedules and forget to slow down and ask the body what it needs. Even though everyone should include daily exercise into their lives, first it is important to relieve stress and restore the body's natural energy, so that there will be a sense of renewed energy. That is why for this Yoga program, we will start with relaxation and visualization. I would recommend a regular Yoga practice incorporating a deep relaxation technique, such as Nischala Devi's Five Bodies and Five Stages of Relaxation (The Healing Path of Yoga, pg 68-80). This takes the client through the koshas and brings a sense of deep relaxation to all of them. Another method I would suggest is Yoga Nidra or iRest to bring the client to a restful place and allow their mind to slow down, so that healing of the body can take place. These two methods could include some guided imagery or visualization, using the senses that are most accessible to that particular person. For example, since we want the blood vessels to be clear and unobstructed, we could use the imagery of a gently flowing, blue river. These relaxation techniques are also going to affect the person's nervous system and blood pressure, bringing a calming quality to the body.

Next I will introduce a physical Yoga practice into the program. Since this condition is a kapha imbalance, I want to bring plenty of movement and low-intensity exertion to the body. Daily walks in the fresh air would be a great way to warm up before the practice. The types of poses and modifications used in this program will depend upon the client's overall state of health, their history of physical exercise, and their healthcare provider's recommendations. Simple warm-ups of the joints would include head, shoulder, wrist, spine, knee, ankle and hip movements. I would reference the Joint Freeing Series by Mukunda Stiles or adapt a series to fit the needs of the client. Then I would teach the client the sun salutation, including modifications if needed and pausing in certain poses to increase tapas. This will raise the heart rate and warm up the body to prepare for other poses. Next I would take the client into some standing poses, like Tuladandasana, Virabhadrasana I, Utkatasana, Prapada Sthana, and Garudasana I (ASM practices). I may also include the series of Karmasana and Padahastasana to incorporate more kapha-reducing effects (ASM practices). After that I would have the client do seated poses such as Paschimottanasana, Janu Sirsasana, Bhastrikasana, and Matsyendrasana. With focus on opening the heart, I would suggest gentle backbends like Ustrasana, Bhujangasana, Setu Bandhasana, Dhanurasana and support Matsyasana. Then to cool down and integrate the practice I would incorporate Viparita Karani, Half Shoulderstand or Full Shoulderstand,

and finally Savasana, using support and props as needed. This program would be specifically designed for each client, and emphasis on the breath would be instructed.

If the client is in a more advanced state of Peripheral vascular disease and cannot practice these more active poses, then I would give them a Restorative practice. Poses that open the heart and bring circulation to the lower body would be beneficial for them. Supported Bridge, Supported Fish, Supported Crescent Moon, any supported forward bend, Supported Shoulderstand, and Supported Savasana are all poses I would potentially include in the practice (IYT Teacher training manual, 2004). Mudras can be very beneficial and are gentle to perform. Va'yavii Mudra is a great practice to bring prana to Anahata Chakra and help the breathing process. Also Yoga Mudra could be included in the asana practice to cool down the body and calm the mind (Yoga Cikitsa, ASM manual).

Pranayama is very beneficial for this condition, as it brings the awareness to the energetic body, focuses the mind, and oxygenates the blood. I would start the client's pranayama practice with Dirgha Pranayama, or Three Part Breath. This will introduce them to Diaphragmatic breathing if they are new to it. This will also open the heart area and allow the lungs to fully expand. Ujayii breathing may be incorporated into the practice, as long as the client does not retain the breath. Another pranayama technique which could be helpful for this condition, depending on their overall health, is Nadi Shodhana, or alternate nostril breathing. These practices can be done on their own, or before meditation, which is the next area of focus.

Meditation is vital for everyone's health, and for peripheral vascular disease, it would be beneficial in many ways. If the client has never meditated before, I would start them off very slowly, maybe even in a supine position. We would go through some different types of meditation and find one that best suits the individual. If the client already has a meditation practice, then we would talk about adjusting it to fit their needs. We might introduce a new mantra to try, or simply increase the amount of time spent in meditation. The practice of meditation is known to decrease blood pressure and muscle tension, so with regular meditation, the client may reduce some of the risk factors of the disease without medication.

Another risk factor for peripheral vascular disease is diet, and with a Yogic diet the individual can bring a balanced state of health to their life. Since this is mostly a kapha imbalance, I would have them follow a kapha-reducing diet. This would include eliminating most meat (if they must eat meat: fish, chicken and turkey), eliminating all processed foods and sugars, especially high fructose corn syrup, and cutting down on oils and fats. They would be advised to eat mostly fresh fruits and vegetables, brown rice, oats, quinoa, barley, most types of beans, and some cottage cheese and goat's

milk. Some spices to include are ginger, cinnamon, clove, fenugreek, cumin, coriander and bay leaves. An herbal supplement of guggulu may be taken to help purify the blood. Plenty of water and clear fluids are recommended to flush the system of unwanted toxins. Following a heart-healthy diet is crucial for reducing the symptoms of peripheral vascular disease and the more the cholesterol in the body is reduced, the better.

Lastly, I would recommend to the client that he or she engage in other types of Yoga to lift the spirits and open the heart. Karma Yoga or Bhakti Yoga could be included in their life. Maybe they could volunteer somewhere, helping the community, or attend a kirtan once a month. Anything that helps them connect with the Divine and raise their Prana will be beneficial to their health. This condition does not have to affect one's life negatively if action is taken. Things like stroke and heart attack could potentially be prevented if someone knows they have peripheral vascular disease or atherosclerosis and does something about it. Simply living life to its fullest, recognizing abundance and nurturing the body can have enormous benefits. With a well-balanced Yoga practice such as this, a commitment to do the practices, and a positive attitude, a person's quality of life can greatly improve.