

PROGNOSIS AND MANAGEMENT OF NEUROPATHY ACCORDING TO AYURVEDA
- A REVIEW ARTICLE

Inderjit Kaur*¹, Shaleen Singh², Satyakam Rahul³

Pious Ayurveda: 508, Sector 33B, Chandigarh.

Received on: 02/04/2020

Revised on: 23/04/2020

Accepted on: 13//05/2020

*Corresponding Author

Dr. Inderjit Kaur

Pious Ayurveda: 508, Sector
33B, Chandigarh.

ABSTRACT

Although, there are lot of reasons for onset of neuropathic symptoms, mainly the metabolic disorders; if the reason is not accidental or any other, then diabetes is a main factor which leads the body towards neuropathy symptoms. While practicing in Ayurveda medicines and working on the neuropathic patients, we have seen the patterns of changes in the body and made the prognosis which we have been using in preventing neuropathy and guiding the people saving their extremities from amputations.

KEYWORDS: Neuropathy, Diabetes, Pre- diabetic stage, Numbness, loss of sensation, and Burning Sensation, Diabetic wounds, Gangrene, VATA (Air and space element), PITTA (Fire and water element), KAPHA (water element).

INTRODUCTION

Neuropathy is pain in any part of body due to problem of nerves.....

NEUROPATHY^[1] is a term that refers to a disease or malfunctions of the nerves. Nerves at any location in the body can be damaged due to any injury or disease.

The literal meaning of the neuropathy is neuro = nerves, pathy = disease, so the disease of the nerves is neuropathy and it leads to pain in the affected part of the body and can create the disturbance in the function of the affected part of the body.

Types of Neuropathy

Neuropathies are typically classified according to the problems they cause or what is at the root of the damage.

Depending upon the site of nerves which are involved, we can divide neuropathy into following types:

1. Peripheral Neuropathy: Peripheral neuropathy is the case when the nerve problem affects the nerves outside the brain and spinal cord. These nerves are part of the peripheral nervous system. Accordingly, peripheral neuropathy is neuropathy that affects the nerves of the extremities i.e. toes, feet, legs, fingers, hands, and arms.

Types of Peripheral Neuropathy: There are several different kinds of peripheral neuropathies that stem from a variety of causes. Peripheral neuropathy can be further divided into acute and chronic forms, symmetrical poly-neuropathy and multiple mono -neuropathy.

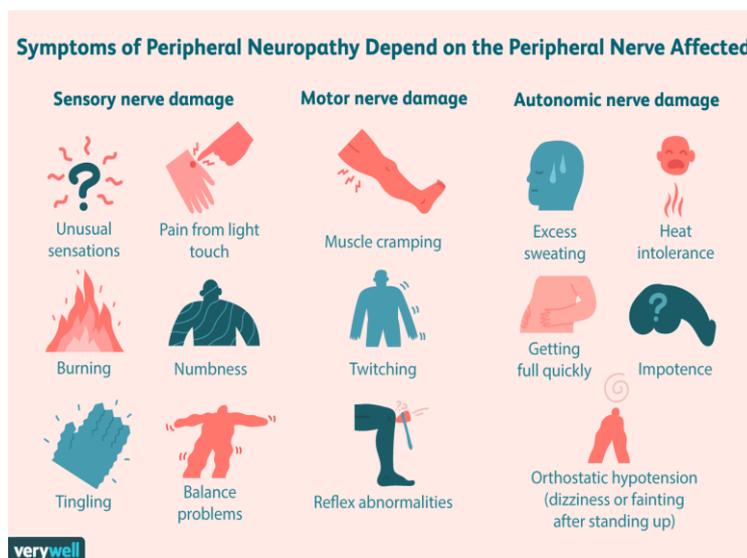


Fig. 1: Symptoms of Peripheral neuropathy.

2. Proximal Neuropathy: The term Proximal Neuropathy has been used to refer nerve damage that specifically causes pain in the shoulders, thighs, hips, or

buttocks. Thoracic and lumbar root or proximal, neuropathy: this damages nerves along a specific distribution in the body, such as the chest wall or legs.

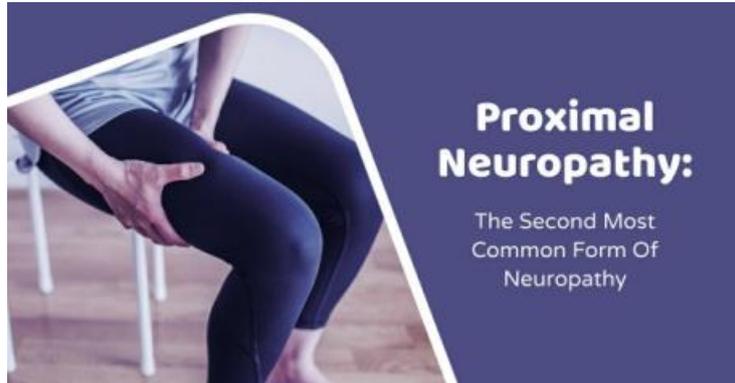


Fig. 2: Symptoms of Proximal Neuropathy.

3. Cranial Neuropathy: Your cranial nerves are pairs of nerves that connect your brain to different parts of your head, neck, and trunk. There are 12 of them, each named for their function or structure. Their functions are usually categorized as being either sensory or motor. Sensory nerves are involved with your senses, such as smell, hearing, and touch. Motor nerves control the movement and function of muscles or glands.

The 12 Cranial Nerves are:

- I. Olfactory nerve
- II. Optic nerve
- III. Oculomotor nerve
- IV. Trochlear nerve
- V. Trigeminal nerve
- VI. Abducens nerve
- VII. Facial nerve
- VIII. Vagus nerve
- IX. Vestibulo cochlear nerve
- X. Glossopharyngeal nerve
- XI. Hypoglossal nerve
- XII. Accessory nerve

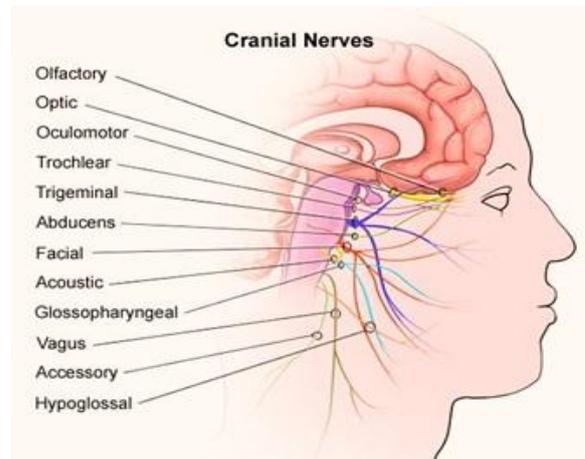


Fig. 3: Cranial Nerves.

4. Autonomic Neuropathy: Autonomic neuropathy is damage to the nerves of the involuntary nervous system. These nerves control the heart and circulation (including blood pressure), digestion, bowel and bladder function, the sexual response, and perspiration. Nerves in other organs may also be affected.

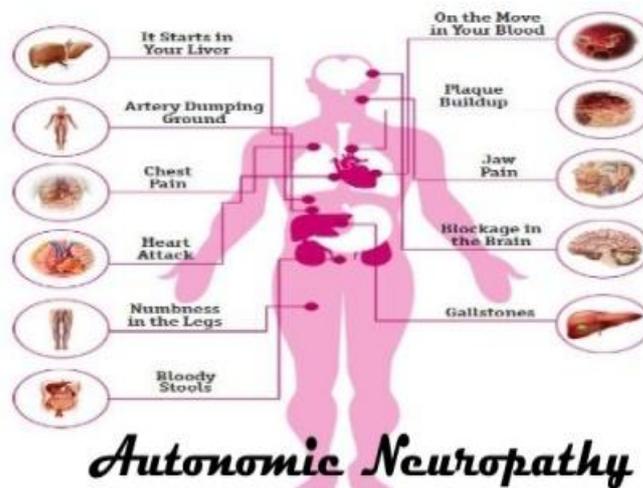


Fig. 4: Autonomic Neuropathy.

5. Focal Neuropathy or Mono Neuropathy: Focal neuropathy is neuropathy that is restricted to one nerve or group of nerves or one area of the body. Peripheral neuropathy is common, often distressing and sometimes disabling or even fatal. The population prevalence is

about 2400 per 100 000 (2.4%), rising with age to 8000 per 100 000 (8%). In Europe the commonest cause is diabetes mellitus, which can produce painful neuropathy, disabling, foot ulcers and death from autonomic neuropathy.

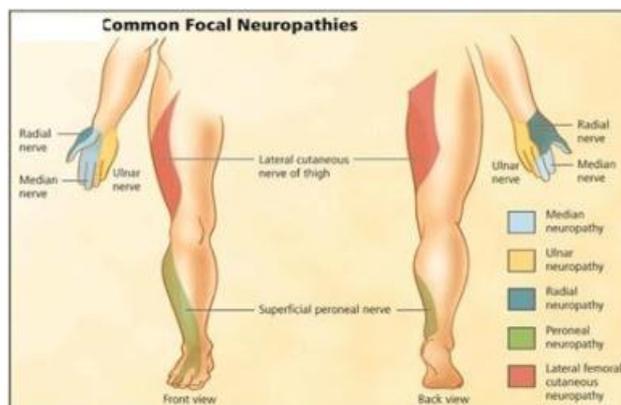


Fig. 5: Focal Neuropathy.

This review explains how general practitioners can approach the first level of diagnosis and make people aware what lies ahead.

MAIN REASONS LEADING TO NEUROPATHY^[2]

Neuropathy can be the by product of many problems, mainly the metabolic disorders like diabetes or thyroid dysfunction, which slow down the metabolism of body. Paralysis and brain disorders like Multiple sclerosis, Parkinson's disease, Alzheimer's, disease where the normal functioning of the brain get disturbed leading to neuropathy ailments.

- 1. Diabetes:** Diabetes is the condition most commonly associated with neuropathy. Neuropathy is most common in people who have diabetes for decades and is generally more severe in those who have difficulty in controlling their blood sugar levels.
- 2. Vitamin Deficiencies:** Deficiencies of the vitamins B12 and foliate, as well as other vitamins can cause damage to the nerves. B12 is associated with digestion of food.
- 3. Thyroid Dysfunction:** Thyroidism can also cause neuropathy, as the body is unable to do its regular metabolic procedures and causing lot of problems. In both cases of Hypothyroidism or Hyperthyroidism nerves can be affected.
- 4. Autoimmune Neuropathy:** Autoimmune diseases such as rheumatoid arthritis, systemic lupus, and Guillain-Barre syndrome can cause neuropathies.
- 5. Infections:** Some infections, including HIV/AIDS, Lyme disease, leprosy, and syphilis, can damage nerves.
- 6. Post-Herpetic Neuralgia:** Post-herpetic neuralgia, a complication of shingles (varicella-zoster virus infection) is a form of neuropathy.
- 7. Alcoholic Neuropathy:** Alcoholism is often associated with peripheral neuropathy. It probably arises from a combination of damage to the nerves by alcohol itself along with the poor nutrition and

associated vitamin deficiencies that are common in alcoholics.

- 8. Genetic Or Inherited Disorders:** Genetic or inherited damage and may be a cause of neuropathy. Disorders can affect the nerves and are responsible for some cases of neuropathy.
- 9. Amyloidosis:** Amyloidosis is a condition in which abnormal protein fibres are deposited in tissues and organs. These protein deposits can lead to varying degrees of organ.
- 10. Uraemia:** Uraemia is a state of high concentration of waste products in the blood due to kidney failure, which can lead to neuropathy.
- 11. Toxins And Poisons Can Damage Nerves:** Examples include gold compounds, lead, arsenic, mercury, some industrial solvents, nitrous oxide, and organophosphate pesticides.
- 12. Drugs or Medication:** Certain drugs and medications can cause nerve damage.
- 13. Trauma/ Injury:** Trauma or injury to nerves, including prolonged pressure on a nerve or group of nerves, is a common cause of neuropathy. Decreased blood flow (ischemia) to the nerves can also lead to long-term damage.
- 14. Tumours:** Benign or malignant tumours of the nerves or nearby structures may damage the nerves directly, by invading the nerves or cause neuropathy due to pressure on the nerves.

AIMS AND OBJECTIVES

Now a day, neuropathy is becoming epidemic in nature. People are having severe pains in the body parts wherever the nerves are affected. Most pathetic are cases of gangrene formation and non healing chronic wounds which lead to amputation of the affected part. The loss of a part of body affect the person at physical and psychological level and the situation of the patient become worse, as his self esteem get lowered.

The study is aimed at creating awareness among masses so that we can help people preventing neuropathy symptoms. It will be our contribution to society and we will be able to give people a quality life management.

If we see the patterns of changes in body with respect to Ayurveda, we can save lot of people from losing their extremities, which get amputated due to lack of awareness among people and delay in the treatment. The fingers or toes or other organs fall prey to gangrene formation and eventually amputation. I am already working on it and formulated medicines for prevention, but we need to create awareness.

Main aim to write this review article is the prognosis of neuropathy with respect to ayurveda and how one condition leads to another condition step by step. If people are aware with the symptoms they can help themselves at the right time.

Ayurveda works on tridosha theory, Tridosha^[3] are responsible for every function in the body. The body is made of five elements, space, air, fire water and earth. Physiologically, these elements function as three bio-dynamic forces called vata, pitta and kapha. While every individual is born with five elements, the constitutional makeup and the relative proportions of each element are a little different in every individual, depending upon lot of factors at the time of his/ her birth.



Fig. 5: Five elements and their relation with Tridosha.

VATA DOSHA (responsible for catabolism): As in ayurveda, vata dosha is considered to control every voluntary and involuntary movement in body and all sympathetic and parasympathetic movements are assigned to vata. Vata is considered to control every moment in body like nervous sensations, digestion of food in the body, palpitation of heart, working of neurons etc. Intestines are considered as the main place of vata in body. So, all vatic disorders are called pakwashyagat roga, which are 80 in number, considered maximum in ayurveda.

PITTA DOSHA (Responsible for metabolism): Pitta dosha is for the transformation of energy that is for the assimilation of foods and taking nutrients out of it for nourishing all dhatus (from rasa to rakta, maans, meda,

asthi, majja, shukra) and the last ojus (immunity) of the body. Increased pitta causes the ulcer formations and blood infections causing skin eruptions. There are 40 types of diseases which are due to pitta dosha.

KAPHA DOSHA (Responsible for anabolism): Kapha dosha controls muscle growth, body strength, stability, weight and your immune system. We can say protecting the vital organs is the role of kapha in our body. Only 20 diseases are assigned to kapha dosha.

STEPS OF PROGNOSIS

In ayurveda steps of prognosis of neuropathy (samprapti) are explained now. We are taking the general prognosis of neuropathy. If one keep on ignoring the alarms of the body, this series of effects start manifesting. It does not occur all of sudden, it takes years when the symptoms start to manifest.

The neuropathy starts in people when dryness prevails in the body or when a body reaches a stage of disturbed assimilation of food in body and intestines, the food stays in intestine for long periods, leading to fermentation and producing foul gas (vata prakope). The people of vata prakriti are more vulnerable to neuropathic ailments, as healthy people have kapha which saves them for some time, but if there is continuous increase in kapha then it leads to blocking of channels, which ultimately leads to vata prokope and to neuropathy. It progresses slowly, but now a day we have strong aggravating factors like mobile radiations, wrong timings of food intakes and lethargy.

NIDAAN (REASONS)^[4]

UNHEALTHY FOOD PATTERNS (MITHYA AHARA): If the person is of kapha prakriti (healthy) and still having excessive consumption of yogurt or liquor, meat and soup of the domestic, aquatic and marshy land animals, spicy, starchy foods and new grains, products of jaggery or all other sweets create extra load in the stomach.

UNHEALTHY LIFE STYLE (MITHYA VIHARA): Now a day jobs are of constant sitting and working on computers leading to physical inactivity and lack of exercise. Laziness, disturbed sleep patterns and sedentary life style and all other kapha and pitta promoting things which lead to lethargy in the body and slow down the metabolism. Extensive Use of microwaves are also a reason, where radiations burn most of the nutrients of the food.

MOBILE RADIATIONS^[5]: Now a day everyone is busy on mobiles, computers and laptops and the vibrations of the radiations from these gadgets aggravate the working of neurons, due to this PRANA VATA get disturbed which is located in brain, throat, heart and respiratory organs, it leads to disturbed functioning of these organs and heat, produced (PITTA) causes dryness of kapha in body tissues it disturbs BODHAK KAPHA which

governs perception of taste, lubricating and moistening of food. Located in the tongue, mouth and throat, its functions got disturbed. Due to vata' and pitta aggregation muscles of brain got shrunken up, which is the main reason for increasing the neuropathy problems in recent times.

MENTAL CONDITIONS: like worries, stress or anxiety lead to more wear tear of brain cells leading to neuropathy.

OTHER AGGREGATING REASONS: diseases mentioned above like paralysis, dementia, any accident and deficiency of nutrients. Trend of use of alcohol and other narcotic substances are a major aggravating factor for the onset of neuropathy ailments.

METABOLIC DISORDERS LIKE DIABETES OR THYROIDISM [6]: It leads to slowing of metabolism. Samana vata get disturbed which governs the peristaltic movement of the digestive system being located in the stomach and small intestines and the depletion of Kledaka Kapha(located in the upper part of the stomach) adds to the disturbed metabolism as the moistening and liquefaction of the food is not getting done properly.

With all these factors the following things start taking place

People eat without concentrating on food, they are busy on mobile phones or other devices and eating simultaneously, most of the time food intake is untimely, which affects assimilation. As brain is busy on reading and watching something on mobile it does not know how much food is being eaten and how much saliva body needs in buccal cavity for moistening foods and then pushing it in alimentary canal. Slowly all the dosha and subdosha [7] start getting affected leading to disturbance in the assimilation of food.

I. STOMACH GETS AFFECTED

Starchy food (fine particles) intake increases heaviness in body, stomach has more stuff to assimilate, for that it needs more fire or we can say more of juices and enzymes should be there. So pitta dosha that is Pachaka Pitta (located in the lower stomach and small intestine) which governs digestion of food and breaks it down into nutrients and waste, increases in the body, as it has to assimilate more food products.

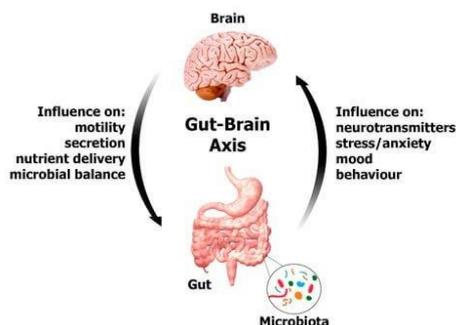


Fig. 6: Gut – Brain Axis.

II. INVOLVEMENT OF LIVER

Liver, Gallbladder and spleen are places of Ranjaka Pitta which Governs formation of red blood cells. It helps to give colour to blood and stools. These organs being affected involved in digestion and formation of further tissues from the food that is transformation of blood (rakt) from rasa (nutrition).

When these organs get disturbed, their functioning also gets affected leading to disturbed transformation of further fundamental tissues or element(Nutritional essence > Blood > muscles > fats > bones > bone marrow > semen/ egg) that support the basic functioning of body).

Increased pitta further increase appetite and thirst, It further causes overloading in stomach causing hyperacidity as there is lack of empty space in stomach for churning of food and while getting digested some of the food bounces back to oesophagus causing acidity, as the food is mixed with peptic juice, the person burps with acidic content and taste of mouth becomes acidic (amalpit), it is called regurgitation (udavrata). As the liver cannot perform its function perfectly, it affects purification of blood, so the toxins start circulating in the body causing skin infections and formation of ulcers. Over exertion of liver causes fatty liver (ecogenicity of liver; we can relate it to exercising in the gym causes toning of muscles (muscular body).

Regular increase in pitta causes burning sensation in stomach, leading to heart burn, hypertension and other cardiac disorders and skin infections also, as Bharajaka Pitta gets disturbed due to toxins in blood as it governs lustre and complexion, temperature and pigmentation of the skin. Pitta tries hard to assimilate it and more of fire leads to dissolution of fatty tissue (mans dhatu). If not taken care and this phenomenon becomes regular both kapha and pitta keep on increasing and the excess of kapha which gets over assimilated, we can say into more fine particles and accumulate in the medas dhatu (that is increased lipids and triglycerides in body) along with disturbed formation of further dhatus (bone, bone marrow and sperm / ovum) and further immunity.

Raised triglycerides lead to blocking of channels: we call it atherosclerosis (srotoavrod). Atherosclerosis causes narrowing of lumen of arteries resulting in poor blood supply to vital organs, even heart itself and leading to disturbed blood supply from heart to various organs. Due to heaviness, metabolism becomes sluggish and slow.

III. HEART GETS AFFECTED[8]

If precautions and remedies are not taken care at this stage then with continues changes, heart itself gets affected with increased vata and pitta dosha (heat and air) causing hardening of vessels; it leads to poor supply to other organs and heart muscles itself (pericardium). Sadhaka Pitta governs emotions such as contentment,

memory, intelligence and its site being the heart, these emotions get compromised. Vata and pitta when combined causes shrinkage of muscles there by disturbing the bedding of nerves and vessels.

Due to weakness and loss of flexibility of tissues, heart cannot pump up proper blood to the extremities. As the

elasticity of muscles gets affected, heart has to exert a lot to push blood to the extremities, causing hypertension and other associated problems. Regular exertion leads to hardening and thickening of muscles of the heart. Heart becomes incapable of expand and shrink properly, so affecting the supply of blood and nutrition to other vital organs.

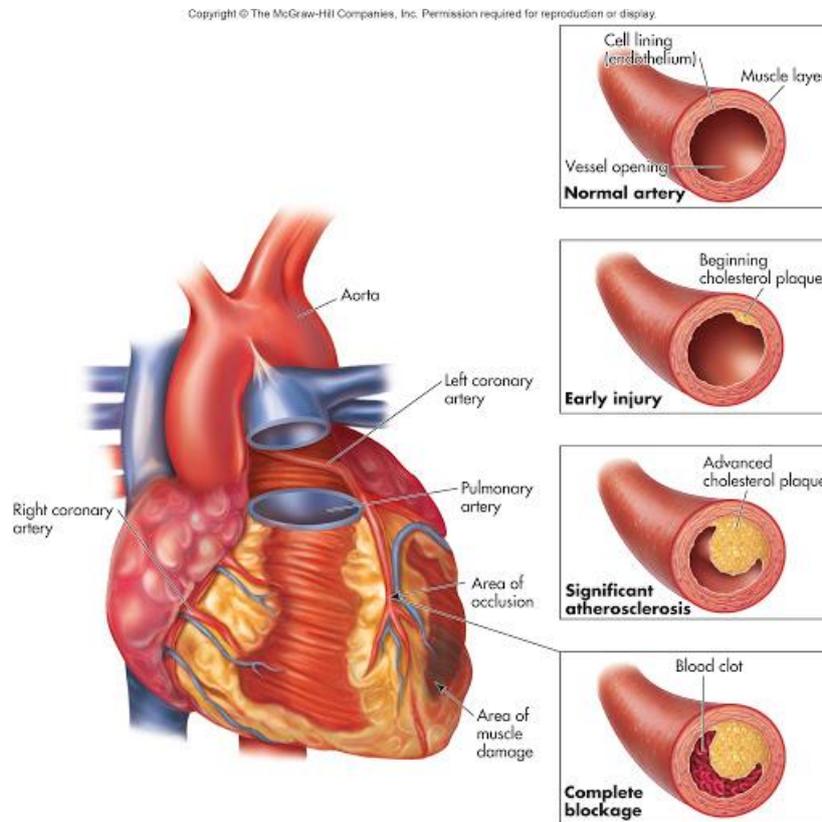


Fig. 7: Showing heart and phases of atherosclerosis.

IV. INVOLVEMENT OF LUNGS

Due to lack of blood and nervous supply flexibility of lungs gets affected causing the hardening of lungs and affecting its expansion and relaxation, which result in impurities in blood, clogging occurs in spongy tissue of lungs. It causes dyspnoea and recurrent cough, which is not easy to control and treat. Avalambhaka Kapha takes care of lubrication of the heart and lungs. It also provides strength to the back, chest and heart.

Due to more of dryness udana Vata gets disturbed and as it governs speech, self-expression, effort, enthusiasm, strength and vitality, they all get compromised. (As the place of udaan vata is the navel, lungs and throat).

V. INVOLVEMENT OF KIDNEY

Loss of proper supply of blood to kidneys leads to their dysfunction (nephropathy). The kidneys contain millions of tiny blood vessel clusters (glomeruli); they filter waste from the blood. The fat (Medh) cells causes clogging in the glomeruli causing disturbance in its functions of filtration, thus start accumulating the toxins in the body,

leading to accumulation of fluid in the kidneys and damaging this delicate filtering system.

Severe damage can lead to kidney failure or irreversible end-stage kidney disease. Increased fluid level in the body (kleda vrudhhi) creates load on urinary bladder, leading to frequent urination or sometimes symptoms such as incontinence, difficulty in beginning to urinate or feeling that the bladder was not completely emptied.

VI. INVOLVEMENT OF INTESTINES

Disturbance in assimilation of food causes constipation, with dryness the peristaltic moment of the intestines gets disturbed and fermentation and stagnation of food particles occurs leading to foul gas formation as Apana Vata get disturbed, which governs all downward impulses, urination, elimination, menstruation, sexual discharges etc. it causes difficulty in evacuation of waste material and it leads to absorption of toxin in intestines, as dryness leads to more solidification of remains.

As the nature of vata (air) is upward movement in body, upward vata pressurises diaphragm causing flatulence in

abdomen and the organs resting on diaphragm get pressurised. Deficiency in supply of blood and nerve sensations leads to loosening of muscles (dhatu shaithilya).

VII. INVOLVEMENT OF BRAIN LEADING TO NEUROPATHY

Increased dryness (vata prakope)^[9] in the body further affect brain muscles. Then central nervous system gets

affected as brain lacks proper nutrition needed and oxygen levels.

- a. Thus inhibiting its functions of the release of healthy hormones and
- b. Hindering actions associated with the nervous system.

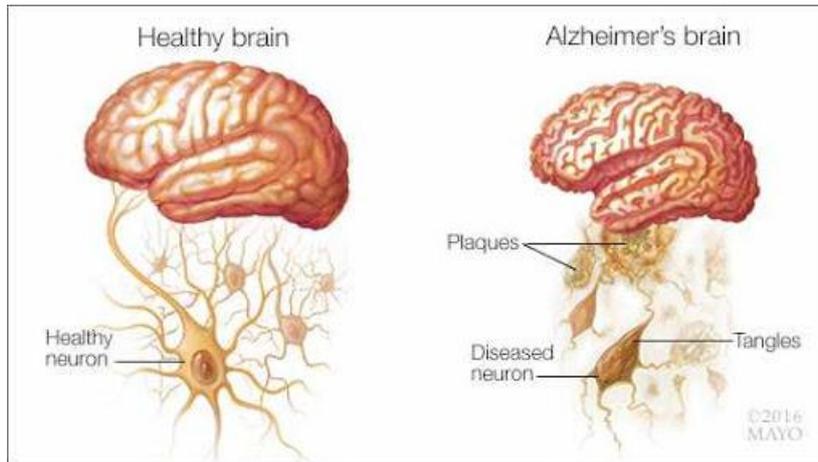


Fig. 8: Showing Normal Brain and Alzheimer Brain.

Neuropathy is mainly related to problems of nerves or neuron^[10], which originate from the brain.

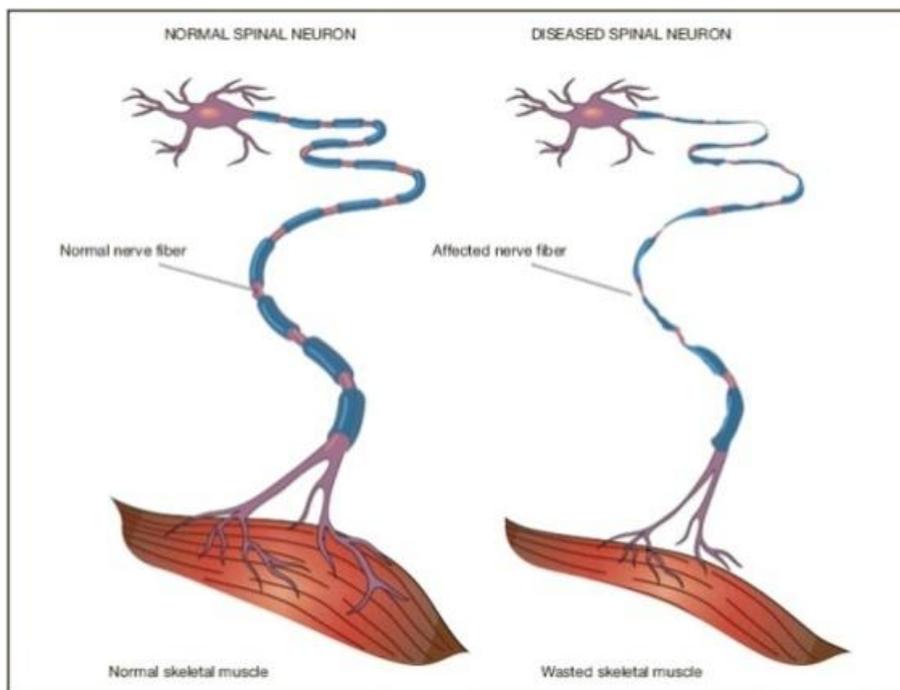


Fig. 9: The Normal and Abnormal Muscle.

Depending upon the part affected we start having symptoms like Dementia, Alzheimer, short temper and other brain related issues. Body has its broadband like network. Networking of the human body is done by the neurons. Neurons are cells, which carry information or sensation and orders to and fro between body and central nervous system. Depletion of Tarpaka Kapha causes

lack of calmness, happiness and stability in the body. Nourishment of sense and motor organs also gets affected as tarpak kapha lubricate head, sinuses and cerebrospinal fluid. Depleted kapha leads to thinning of the layers of meninges and brain muscles, which impact the bedding of nerves and vessels.

Nerves are like electricity wires. Nerves relay signals by transmitting electrical impulses. Most biochemical reactions from digestion to brain activities go along with the rearrangement of charged particles. Even the heart is

electrically active and activity can be traced by your doctor with the help of an electrocardiogram (ECG) and activity of brain with electro-encephalography (EEG).

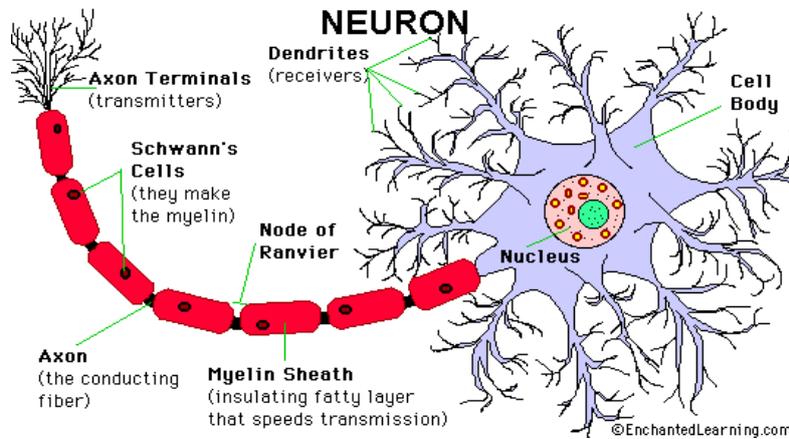


Fig. 10: Showing Neuron.

Myelin sheath (medha dhatu) insulates the axon from electrically charged ions and speeds up electrical conduction.

With increased Vyaan Vata (heart) every function associated with it gets affected that are walking, blinking, blood circulation, sweat excretion etc.

Myelin sheath of a neuron consists of fat containing cells (adipose tissues: they store energy and provide cushion and insulate the body, obesity in the body is dependent upon the amount of body fat- these adipose tissues or medha dhatu) that insulate the axon from electrical activity. This insulation acts to increase the rate of transmission of signals.

It causes stiffness in body leading to restriction of movements in body, causing cracks in skin, neurasthenia and muscular dystrophy^[1] etc., the sense of weakness in your hand occurs and a tendency to drop things is there.

It is like the insulation on the copper wires, which protect the copper wire from short circuit and controls fluctuation of the current in the wires. The myelin sheath covers the neuron and keep it protected all the time. With the dryness, myelin sheath starts shrinking and with the heat (pitta prakope), it starts breaking also, causing cracks in the neurons which is a reason for having needle pricking feeling and burning sensation in feet. It is the leaking of the electric current of the neurons. As the circuit gets broken up and there is loss of flow of electric current. The part which is affected shows the loss of sensation. When this myelin sheath (medhdhatu) got damaged or irritated, it leads to neuropathy.

There is the tingling sensation and numbness and affects the movements of neurons as vata is the dosha responsible for every movement in body. Neuropathy occurs at the neural synapse, this is a link between two neurons. All these movements of senses occur in form of electrical impulses, the blocking of these electric impulses leads to NEUROPATHY.

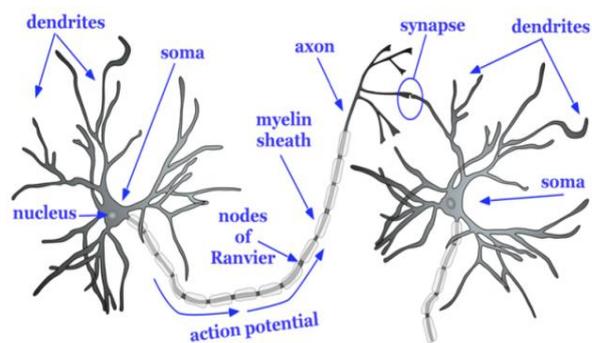


Fig. 12: Showing transfer of electrical impulse.

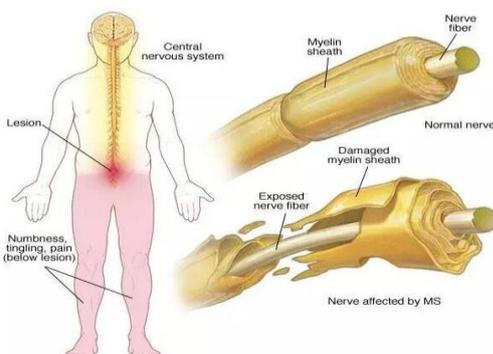


Fig. 11: Showing myelin sheath.

Eye damage (retinopathy) can occur due to neuropathy of the cranial nerves or we can say due to Alochaka Pitta (governs visual perception). It occurs due to problem in the nerve leading to eyes. Neuropathy can damage the blood vessels and nerves of the retina, potentially leading to blindness.

Hearing problems are more common in people due to affected nervous supply.

Whatever organ gets affected we develop the neuropathy of that part, we can say which part of the body is weak, and we develop neuropathy of that part (STHAN SANSHREYA). All types are described in the starting of the article.

In Ayurveda followings are the symptoms of neuropathy:

1. Anidra (loss of sleep)
2. Stambha (stiffness of the body)
3. Kampa (shivering)
4. Shoola (body ache)
5. Baddha purishata (constipation)

Dryness of the muscles in the feet and hands causes reduced space for the bones, thus causes the bending and deformities of the bones.

Feet are the weight bearing organs, the muscles of feet are affected early, and they start weaning due to lack of moisture. The dryness causes shrinking of nerves, arteries and veins and the ends starts closing and so supply gets affected and the organ start losing the sensations. Nerve damage in the feet or poor blood flow to the feet, increases the risk of various foot complications.

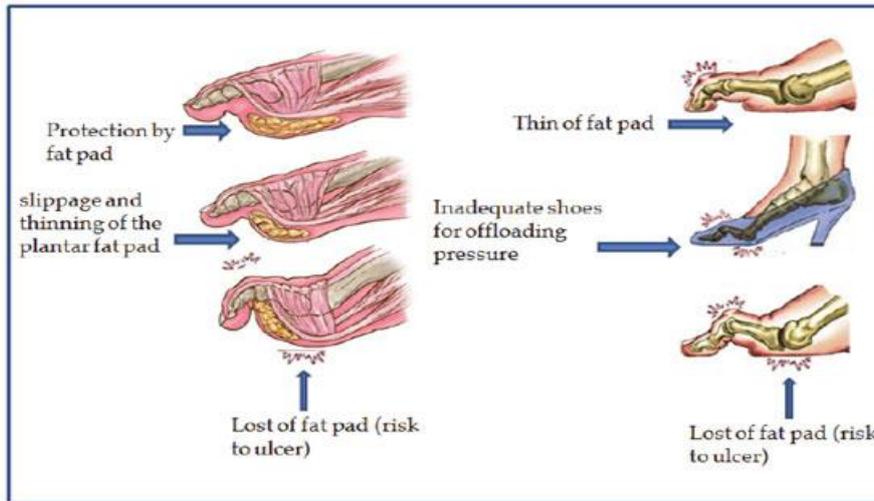


Fig. 13: Showing Feet Shrunken due to Reduced Space.

Supply to the various joints also get affected as shleshaka kapha get depleted as this is responsible for lubrication of all joints and mutual rubbing in the bones causes inflammation and pain in the joints.

ULCER AND GANGRENE FORMTION

When total blood and nervous supply is affected, the muscles get dried up and become hard, they can be hurt and broken even with a little pressure.

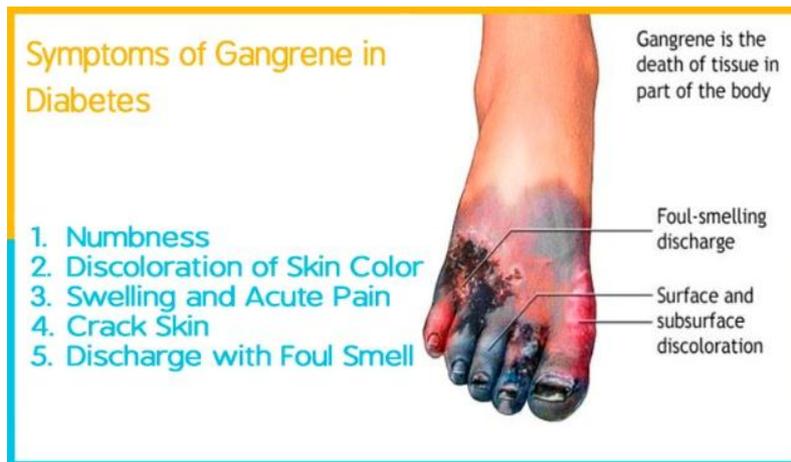


Fig. 14: Showing Gangrene in the Feet.

Patient already has loss of sensation, so he do not get to know even if he is hurt and it leads to formation of ulcer, due to lack of blood and nervous supply, the ulcer or wound take long time to heal and do not get healed.

With more complications and with total loss of sensations and blood, the part affected start turning blue and then black, leading to total death of tissues of that part of body that is called gangrene formation.

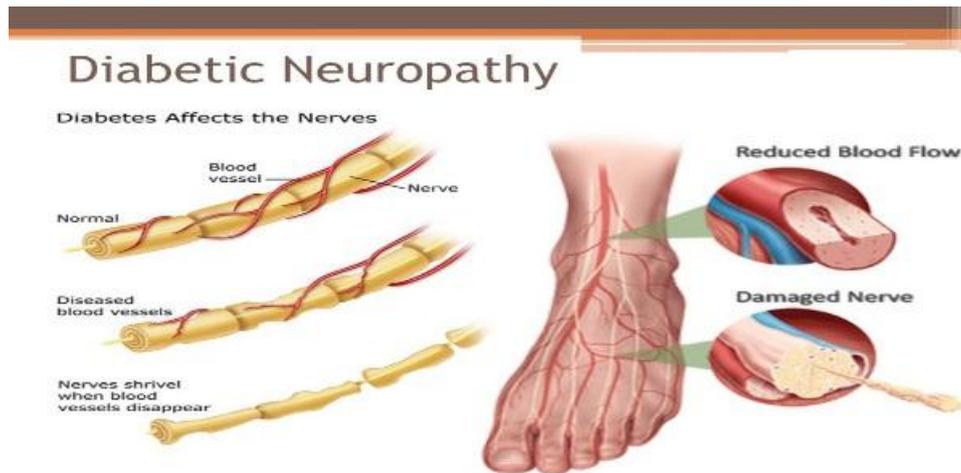


Fig. 15: Showing Diabetic Neuropathy Feet.

If Nidhana parivarjanam not followed and if symptoms are not taken care of and no precautions are taken, further increase in problems occur leading to complications.

CONCLUSION

From the diagnosis of patients, we came to a conclusion that whatever may be the reason; the onset of neuropathy occurs due to two main reasons:

1. Due to lack of blood supply to the part affected, it may be due to injury to that part or it can be due to disturbed metabolism as it leads to rise in triglycerides which further lead to Atherosclerosis and eventually a stress on heart and heart muscles, which lose their elasticity and become unable to propel the proper amount of blood needed to every part of the body or mainly the affected part.
2. Second reason is the lack of nervous sensations in the affected part; it can be due to injury or accident or in case of disturbed metabolism, due to lack of blood and oxygen supply to the brain and brain muscles and its internal parts. Brain being a muscular part; tend to shrink which further affect all the controlling channels embedded in the brain muscles. Then brain becomes unable to control all the nervous systems and could not send nervous sensations from the affected part of the brain, the organ which is associated to it gets affected. When any organ is short of blood and nervous sensation, neuropathy starts. If we start taking care at the onset of first symptom of neuropathy we can save many persons from losing organs. Above all if we create awareness, we can also save lot of people from being diabetic, if we guide them at pre-diabetic stage^[12].

My purpose of writing this article is to create awareness among people about the symptoms of neuropathy, which our body start possessing at various stages. If one becomes aware at the first or the second stage of symptoms, he or she can surely take precautions to control the symptoms and we will be able to save extremities of so many people.

Lot of ailments can be averted by eating in perfect manner as advised in CHARAK SAMHITA, by sitting properly and taking care of ritu charya and by not over eating, which is the main reason now a day^[13].

As the main reason for neuropathy is increase in vata dosha (dryness in body leading to dryness of muscles of every organ of body), so treatment should involve lubrication that is Vata pacifying medicines (vat shamak dravya)^[14] mainly. To stay healthy, we have to maintain health of muscular tissues, so that the arteries and veins have a perfect bedding to keep the blood supply to various organs intact. We have to tone up nerves and keep the myelin sheath intact.

For every function we have to work to pacify vata which is to provide lubrication to the body, that we can compare to as the oiling of the machine and pacify pitta so that fire element of the body is pacified and it does not burn the tissues of the body itself. We have to adapt a holistic routine that includes proper diet and Pranayaama, which can pacify the brain and relax it, so that hyperactivity of the brain is reduced which is due to vata dosha (vibrational nature of radiations) and second, is to control the aggression of the body, which is due to the pitta dosha (heat of radiations).

We have to calm down the brain and pacify the vata dosha, put 2-2 drops of almond oil in both nostrils in winter and goghrita in summers, as it lubricates the sinuses pacifying vata at ENT (ear, nose, & throat) and CNS (central nervous systems).

As the vata dosha are related to intestines (pakwashyaghat), applying oil at nabhi (belly button) help you keeping all nerves healthy by aligning the GUT BRAIN AXIS and taking care of absorption of food and elimination of waste properly, stopping the fermentation of waste materials and hence vata aggravation.

Medical treatments for diabetes, autoimmune diseases, infections, kidney disease, and vitamin deficiencies are

varied and are directed at the specific underlying conditions. Control of blood glucose (sugar) levels is important in the treatment of diabetic neuropathy to help prevent further damage to nerves.

The Local application of oils keep the muscular and nervous supply intact to each and every pore of feet and for hands even, if used on regular basis even if you do not have any problem.

REFERENCES

1. Neuropathy, Neuropathic Pain, and Painful Peripheral Neuropathy – Many kinds, causes, and treatments, https://inns.memberclicks.net/assets/documents/Fact_Sheets/fact-sheet-painful-peripheral-neuropathy.pdf.
2. Nerves and Neuropathy, https://www.amyloidosisupport.org/support_groups/fam_nerves_neuropathy.pdf.
3. Pt. Kashinath Sashtri & Dr. Gorakhnath Chaturvedi, Chark Samhita, Sutra Sthan, Deeragjivitiya Adhyaya - 1, Part – 3, Dhatu Samyata Tatha Tridosh Vigyan; Pg No. 28 - 39.
4. Kaur Inderjit, Singh Shaleen, Shrivastava Naveen Kumar. Ayurvedic View of Mode of Effect of Electromagnetic Radiations on Body and Brain and Remedy to Protect Them, Jour. of Ayurveda & Holistic Medicine, Volume-VII, Issue- III (May-Jun. 2019); Pg No. 42 – 53.
5. Grzegorz Redlarski, Bogdan Lewczuk, Arkadiusz Żak, Andrzej Koncicki, Marek Krawczuk, Janusz Piechocki, Kazimierz Jakubiuk, Piotr Tojza, Jacek Jaworski, Dominik Ambroziak, Łukasz Skarbek, and Dawid Gradolewski. The Influence of Electromagnetic Pollution on Living Organisms: Historical Trends and Forecasting Changes, BioMed Research International, Volume March 2015, Article ID 234098, Pages 18.
6. Pt. Kashinath Sashtri & Dr. Gorakhnath Chaturvedi. Chark Samhita, Nidaan Sthan , Prameha Nidaan, Chapter IV; Pg No. 630 – 641.
7. Dr. Vasant D. Lad, Secrets of the Pulse – Part - 2 (The ancient Art of Ayurvedic Pulse Diagnosis) - Chapter 4, Subtypes of the Three Doshas; Pg No. 65- 72.
8. Dr. Vasant D. Lad, Secrets of the Pulse – Part - 2 (The ancient Art of Ayurvedic Pulse Diagnosis) - Chapter 5, Dhatus Through The Pulse (The Examination of Biological Tissues); Pg No. 73 – 93.
9. Dr. Vasant D. Lad, Secrets of the Pulse – Part - 2 (The ancient Art of Ayurvedic Pulse Diagnosis) - Chapter 7, Manas Prakriti and Vikriti (The Mental Constitution and the Present Flow of consciousness); Pg No. 105 – 118.
10. Pt. Kashinath Sashtri & Dr. Gorakhnath Chaturvedi. Chark Samhita, Suter Sthan, Maha Roga Adhyaya, Chapter 20; Pg No. 394 – 407.
11. Pt. Kashinath Sashtri & Dr. Gorakhnath Chaturvedi. Chark Samhita, Suter Sthan, Kiyantasirashya Adhyaaa , Chapter XVII; Pg No. 330 -367.
12. Pt. Kashinath Sashtri & Dr. Gorakhnath Chaturvedi. Chark Samhita, Chikitsa Sthan , Prameha Chikitsa, Chapter VI; Pg No. 227 – 244.
13. Pt. Kashinath Sashtri & Dr. Gorakhnath Chaturvedi. Chark Samhita, Viman Sthan: Trividhkukshiya Vimana, Chapter II; Pg No. 686 - 691.
14. Pt. Kashinath Sashtri & Dr. Gorakhnath Chaturvedi. Chark Samhita, Chikitsa Sthan 28th Chapter, Vat Vyadhi Chikitsa; Pg No. 775- 819.