

EMBLEMATIC SYMPTOMS IDENTIFICATION IN DIABETIC NEUROPATHIES TO PREVENT IN EARLY STAGE

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Abstract: Preventing the human being from Diabetes is a very challenging role towards the routine life for everybody in the World. Patients affected with diabetic with the high level of blood sugar have to be monitored in regular way. Consequently, it will also affect the organ of the human body as much as faster, when the range gets exists. At any stage of diabetes value penetrating, Some Symbolic Identification can support as to prevent us to warn the stages to safe-guard. Early stage Symptoms Identification supports us to protect the Particular organ in many ways of Medical Approaches. Diabetic Neuropathies will affect the organs like feet, toes, heart, arms, legs, urine tract and soon. A Quick Decision Repository is applied to fine tune the organ in early stage.

Keywords: *Diabetes Neuropathies, Decision Repository, Data Mining Techniques, Symbolic Identification*

LINTRODUCTION

[1]Nerve damages will causes many diseases , especially for diabetes patients T2D.Many Complication based on nerve will affected quickly, if the prevention is applied or taken to the patients. To recognizes the diabetes some set of medical parameter values are identified and verified. The high blood sugar level can be classified as type1 (T1D), prediabtes,type2(T2D) and gestational diabetes. General Classification of Diabetes Neuropathy as

1. Diabetic peripheral Neuropathy
2. Diabetic Autonomic Neuropathy
3. Diabetic Proximal Neuropathy
4. Diabetic Focal Neuropathy

1. Habit of alcohol and smoking usage
2. Damage of blood vessels (neurovascular)
3. Prolonged time being of diabetes
4. High level of fats.
5. Low levels of insulin
6. Nerve injury

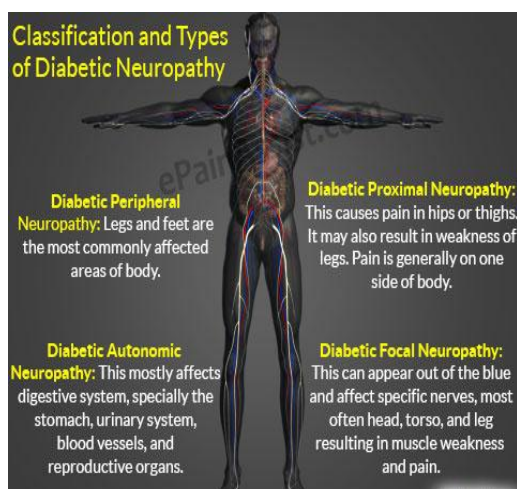


Figure 1: Classification of Diabetic neuropathy

[2] Discussed about the causes related to diabetic neuropathies. Researchers are reviewing in what way sustained disclosure to high blood glucose grounds nerve damage. Nerve damage is probable due to incorporation of aspects are:

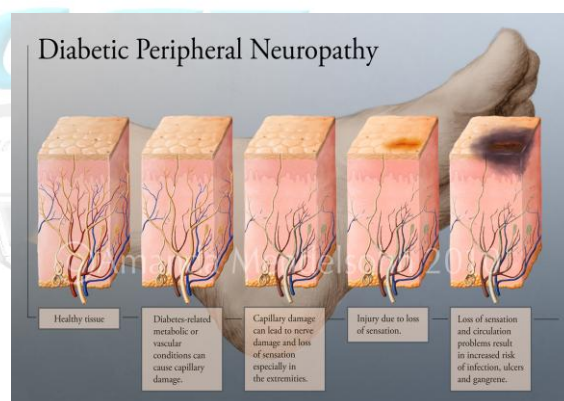


Figure 2: causes of nerve damages

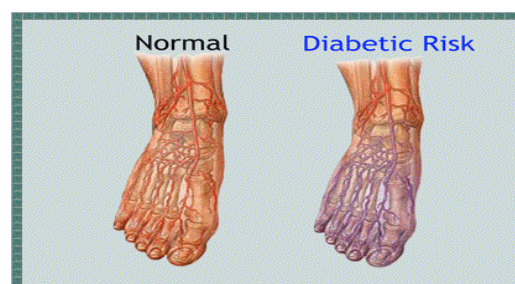


Figure 3: pre and post stage of nerve damages

II. BACKGROUND OF THE STUDY

General analysis of information does not support for true survival results. As it seems to be a medicinal feature, more and more detailed data analysis is required. Even though Diabetes is not a specific disease, but it affects the organ of

the human body with multiple symptoms. Since the diabetes neuropathy will be affected the nerve damage often, when it is in dissolve stage only. Although, the study permits to identify in early period of symptoms with the support of decision repository.

III. EXPERIMENTAL ANALYSIS

1. CLASSIFICATION OF SYMPTOMS BASED ON DIABETES:

SID	Diabetes Stages	Symptoms Identification	Affected Organ
1	General Diabetes	1.1 Urinating often. 1.2 Feeling very thirsty. 1.3 Feeling very hungry - even though you are eating. 1.4 Extreme fatigue. 1.5 Blurry vision. 1.6 Cuts/bruises that are slow to heal. 1.7 Weight loss - even though you are eating more (type 1) 1.8 Tingling, pain, or numbness in the hands/feet (type 2)	any organ
2	Diabetes Retinopathy	2.1 Sudden changes in vision / blurred vision 2.2 Eye floaters and spots 2.3 Double vision 2.4 Eye pain	Eye
3	Diabetes Neuropathy	3.1 numbness, tingling, or pain in the toes, feet, legs, hands, arms, and fingers 3.2 wasting of the muscles of the feet or hands 3.3 indigestion, nausea, or vomiting 3.4 diarrhea or constipation 3.5 dizziness or faintness due to a drop in blood pressure after standing or sitting up 3.6 problems with urination 3.7 erectile dysfunction in men or vaginal dryness in women 3.8 weakness	Nerves
4	Diabetes Nephropathy	4.1 Swelling (edema), first in the feet and legs and later throughout your body. 4.2 Poor appetite. 4.3 Weight loss. 4.4 Weakness. 4.5 Feeling tired or worn out. 4.6 Nausea or vomiting. 4.7 Trouble sleeping.	Kidney

Table 1: Classification of symptoms related to diabetes Stages

2. CLASSIFICATION OF SYMPTOMS BASED ON DIABETES NEUROPATHY:

SID	Diabetes Neuropathy Types	Symptoms Identification	Affected Organ
5	Peripheral neuropathy	5.1 Numbness or reduced ability to feel pain or temperature changes 5.2 A tingling or burning sensation 5.3 Sharp pains or cramps 5.4 Increased sensitivity to touch — for some people, even the weight of a bed sheet can be agonizing 5.5 Muscle weakness 5.6 Loss of reflexes, especially in the ankle 5.7 Loss of balance and coordination 5.8 Serious foot problems, such as ulcers, infections, deformities, and bone and joint pain	<ul style="list-style-type: none"> • toes • feet • legs • hands • arms

6	Autonomic neuropathy	6.1A lack of awareness that blood sugar levels are low (hypoglycemia unawareness) 6.2 Bladder problems, including urinary tract infections or urinary retention or incontinence 6.3 Constipation, uncontrolled diarrhea or a combination of the two 6.4 Slow stomach emptying (gastroparesis), leading to nausea, vomiting, bloating and loss of appetite 6.5 Difficulty swallowing 6.6 Erectile dysfunction in men 6.7 Vaginal dryness and other sexual difficulties in women 6.8 Increased or decreased sweating 6.9 Inability of your body to adjust blood pressure and heart rate, leading to sharp drops in blood pressure after sitting or standing that may cause you to faint or feel lightheaded 6.10 Problems regulating your body temperature 6.11 Changes in the way your eyes adjust from light to dark 6.12 Increased heart rate when you're at rest	<ul style="list-style-type: none"> • heart and blood vessels • digestive system • urinary tract • sex organs • sweat glands • eyes • lungs
7	Proximal neuropathy	7.1 causes pain in the thighs, hips, or buttocks leads to weakness in the legs	<ul style="list-style-type: none"> • thighs • hips • buttocks • legs
8	Focal neuropathy	8.1 results in the sudden weakness of one nerve or a group of nerves, 8.2 causing muscle weakness or pain.	<ul style="list-style-type: none"> • eyes • facial muscles • ears • pelvis and lower back • chest • abdomen • thighs • legs • feet

Table 2: Classification of symptoms related to Diabetes Neuropathy

IV. IMPLEMENTATION METHODOLOGY AND FALLOUTS

1. First Level Implementation:

In the first stage, Identification of diabetes through an applied high level of blood sugar to categories the classification based on Type1, prediabetes and Type2. Information collected towards the first levels are recorded with the full history of diabetes related multiple parameters.

2. Second Level Implementation:

A Decision Repository is applied to find the early stage symptoms in all types diabetes affected based on the organ. Data mining techniques are applied related to the Decision trees through Classification i.e., proven data similar to symptoms. Classifications of symptoms are stated after with the discussion carried over with the chief doctor in Diabetes area.

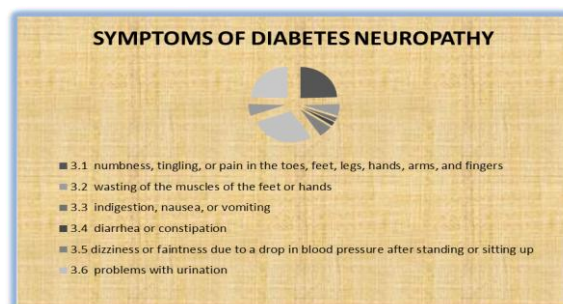


Figure 4: Fallouts of General Symptoms in Diabetes neuropathy

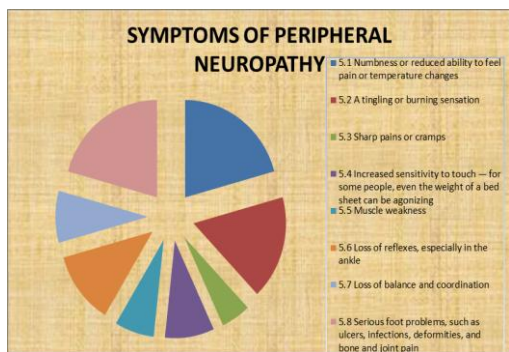


Figure 5: Fallouts of Symptoms in Peripheral neuropathy

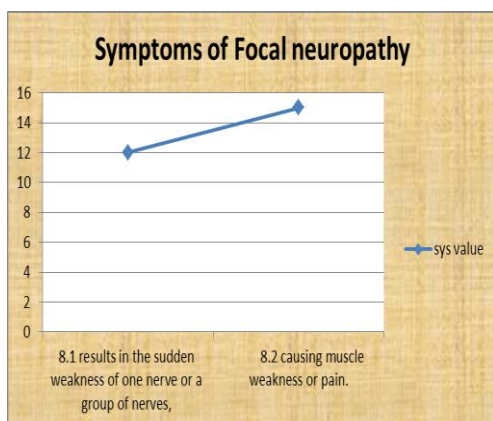


Figure 6: Fallouts of Symptoms in Focal neuropathy

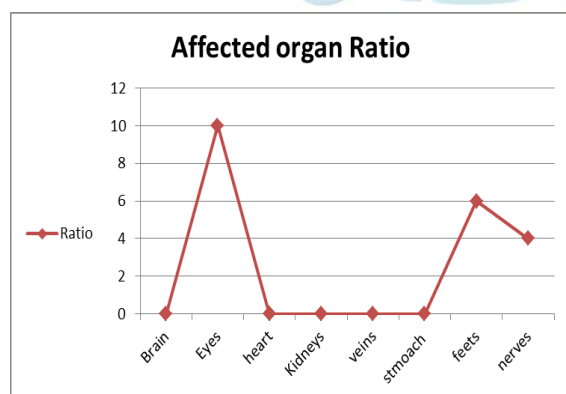


Figure 7: Symptoms affected organ

V. CONCLUSION

Diabetes neuropathy shows a spirited role in diabetes affected people. Nerve impairment has to preclude as soon as possible, whenever the symptoms are indicated symbolically in our human body. Challenging life can be passed, when the prevention of the diabetes features are supported and applied acceptably. Even though some organ based symptoms are interact as silent. Generally, 10 among 2 are affected with diabetes neuropathy. If the Symptoms are detect, it can be resolved the situation in Early stage, the symbolic identification are educated properly in detailed manner.

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