Prevention of Diabetic Foot and Foot Care Among Diabetic Patients

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Introduction: WHO defines diabetes as “a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin introduces “A common effect of diabetes is hyperglycemia or increased blood sugar. Diabetes causes some serious health issues including blindness, kidney failure, stroke, heart diseases and foot ulcers.

Overall, the rate of lower limb amputation in diabetic patient is 10-30 times higher than non diabetics the studies showed that every 30 second one leg is imputed due to diabetes in the world.

Definition: Diabetes Mellitus is a condition where the amount of glucose (sugar) in the blood is too high. Over long periods it can damage certain organs.

Risk factors of Diabetic Mellitus type -2

- Family history of Diabetes
- Overweight and age over 45 years
- History of Hypertension
- Abnormal blood cholesterol
- Abnormal triglyceride level smoking.
- Poor life style inactivity

Types of Diabetes

Type – I diabetes : The body immune system has destroyed the cell that makes the insulin. As a result no insulin produced by the pancreas.

Type - II diabetes : Less insulin secretion and body unable to use insulin properly (insulin resistance).

Signs & Symptoms of diabetes type-2

Intolerable thirst, frequent urination, weight loss, increased hunger, Blurred vision, Weight loss, Feeling tired & sleeping.

Diagnostic Test of Diabetic Mellitus:

Fasting Glucose Test : - Normal values 70-99 mg/dl

Prediabetes : 100-125 mg/dl

In diabetes: above 126mg/dl

Management of Diabetic Mellitus

Maintain normal Blood Cholesterol and triglyceride level at the normal range.

- Follow Diabetic diet.
- Exercising and walking for 30 minutes daily to control blood sugar.
- Monitoring blood glucose and blood pressure
- Reduce the stress
- Taking medication
- Attend seminar on diabetes prevention/ management/ prevention of complication / foot care

Complication of Diabetic Mellitus

I. Micro vascular

II. Retinopathy Damage the small blood its includes damage of eye leading to blindness

Nephropathy: Leading to renal failure

Neuropathy : Nerve damage leading to Diabetic foot ulcer, blisters deep infection of feet, gangrene, and amputation

III. **Macro Vascular :** It include cardiovascular diseases such as Heart attack, stroke

Diabetic Foot

It is most significant and devastating complication of Diabetes on foot.

It is defined as a foot affected by ulceration that associated with Neuropathy and Peripheral arterial disease.

Diabetes neuropathy: loss of sensation in the feet due to nerve damage affect the motor ,sensory, and automatic fibers leads to muscle weakness, atrophy, and Persist loss of pain sensation, pressure and heat.

Causes of Foot Ulcer

- Inadequate blood supply in feet
- Loss of sensation on feet
- Minor injuries of foot
- Foot deformities
- Previous history of foot ulcer
- Visual impairment
- Poor glycaemic control
- Cigarette smoking

Risk factors of diabetic foot

- Heart diseases,
- Kidney diseases
- Obesity
- Use of tobacco
- Old age.

Sign and symptoms of diabetics foot ulcer

- Swelling/Loss of sensation
- Tiredness and warm in feet
- Callused and corns
- Thickened skin surrounding the nail
- Colour changes in foot
- Ulcer in foot, Fever & chill in advanced stages of foot ulcer

Prevention of Diabetic Foot

Examine feet daily for Redness, warmth, Blisters, scratches, cut and nail problems

- Always keep feet warm
- Keep feet away from heat
- Don't smoke
- Don't sit cross legged (it will decrease blood supply to feet)
- Never walk bare foot
- Never wear high heels
- Examine shoes for foreign objects protruding nails & rough spoils inside before putting them on.

Steps

1. Wash feet every day with Luke warm water & mild soap and check water temp putting elbow in water to check temperature if bath thermometer is not available.
2. Dry feet with towel especially between the toes.

3. Moisturise feet but avoid between the toes
4. Check feet for blister, cuts and sores. Access the foot corner and callus do cut it by own.
5. Everyday check feet with the help of mirror for any swelling, sore and ulcer in feet consult with doctor immediately.
6. Keep toes nails at a reasonable length.
7. Always cut nails straight with nail cutter.
8. Cut nail after bathing because it become soft.
9. Keep the feet warm and dry.
10. Wear shoes that fit comfortably.
11. Shoes should not be too tight or loose
12. Always wear sports and leather shoes
13. Wear wide mouth shoes, Purchase shoes at evening because feet become swell in the evening.
14. Always check shoes before wearing for pebble's, stone, etc.
15. Wear clean ,cotton and seamless socks
16. Wear white socks made up of cotton.
17. Don't soaked feet in hot water.
18. Don't used hot water bottle, Hot heater etc. on feet
19. Avoid smoking
20. Keep blood cholesterol at normal range
21. Avoid long time standing and sitting
22. Do daily feet check-up by own. Show foot to doctors at every visit

Conclusion:Foot problems in a person with diabetes can have disastrous consequences. The best management is prevention this can only follows with patient education about foot care and proactive role in treating the risk factors which leads to foot complication.

Reference

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