Diabetes

Overview

- Background
- What is diabetes
- Non-modifiable risk factors
- Modifiable risk factors
- Common symptoms of diabetes
- Early diagnosis and management of diabetes
- Non-medical management of diabetes
- Conclusion

Background

- It is a disease that takes years to develop
- Not dependent on age or gender
- Globally, the total number of people with diabetes is projected to rise from 171 million in 2000 to 366 million in 2030
- In SA, although all groups are affected, Indians are at a greater risk than any other racial group of developing diabetes
- With the increase in urbanisation, the SA black population is also at a high risk due to the changes in lifestyle

Background (cont)

- According to the International Diabetes Federation (IDF), approximately 840 000 of the 47 million people who live in SA, have diabetes

- World Health Organisation (WHO) and IDF predict that this number will increase to more than 1,3 million in the next 25 years.

WHAT IS DIABETES?

- Diabetes is a disease in which blood glucose levels are above normal.
- Diabetes develops when the body cannot produce or use insulin, an essential hormone made in the pancreas. Insulin helps move glucose (a form of sugar) from the blood into the cells of your body.

WHAT IS DIABETES?

- Eat → body breaks down the food to release nutrients
- Carbohydrates found in starchy foods (bread, porridge, cereals, pasta, rice, vegetables, fruit, milk, yoghurt and sugar)
- Carbohydrates provide the body with energy
- Broken down into sugar and absorbed into the blood as blood glucose

WHAT IS DIABETES (cont)

- Every time a person eats foods rich in carbohydrates, the body makes insulin.
- Insulin, a hormone produced by the pancreas, is responsible for transporting this sugar from the blood into the cells where it is converted into energy for the body.

WHAT IS DIABETES (cont)

- Without insulin, glucose can't move into the cells of your body, to be converted to energy which your body requires to stay alive and active

- Diabetes is when the body is unable to make enough insulin or it is unable to correctly use the insulin it makes – resulting in the body being unable to control the glucose levels in the blood.

WHAT IS DIABETES (cont)

- Glucose then builds up in the bloodstream – hyperglycaemia

- This is the opposite of hypoglycaemia, which is low blood glucose caused by eating too few carbohydrates, skipping meals, taking too much insulin or oral medication, being ill or drinking alcohol on an empty stomach.

WHAT IS DIABETES (cont)

- NB. Blood glucose (sugar) is not just sugar from eating table sugar or sweet foods, but comes from the breakdown of all foods which contain carbohydrates.

- When blood glucose levels are high it can be detected when a blood or urine test is done.

TWO MAIN TYPES OF DIABETES

Type 1 diabetes

- Type 1 is the most common form of diabetes in people younger than 20 years old, but it can occur at any age.

- Type 1 diabetes occurs because the insulin-producing cells (called beta cells) of the pancreas are damaged.

Type 1 diabetes (cont)

- People with Type 1 diabetes produce little or no insulin, so sugar cannot get into the body's cells for use as energy.
- This causes blood sugar levels to rise.
- People with Type 1 diabetes MUST use insulin injections to control their blood sugar.

Type 2 diabetes

- People with Type 2 diabetes produce insulin. However, there is either not enough insulin or it doesn't work properly in the body.
- When there is not enough insulin or the insulin is not used as it should be, sugar cannot get into the body's cells for use as energy. This causes blood sugar to rise.

Type 2 diabetes

- Type 2 diabetes is most common in people over age 45 that are overweight. Some people with Type 2 diabetes can manage it by controlling their weight, watching their diet, and exercising regularly.
- Others might also need to take an oral medicine and/or insulin injections.

MODIFIABLE RISK FACTORS

- Obesity (BMI >30)
- Central obesity –
- male≥ 102 cm, female ≥ 88 cm
- Little or no physical activity
- High cholesterol count
- Tobacco use
- An unhealthy diet (lots of fats, sugar and salt)
- (fast foods / take away, processed foods polony, cold drinks / fizzy drinks)

NON-MODIFIABLE RISK FACTORS

- family history of diabetes
- people aged 40+ – however, children also develop diabetes
- people of Indian descent are at a higher risk of developing diabetes
- previous gestational diabetes (diabetes during pregnancy)
- high birth weight infants (>4kg)
- high blood pressure

COMMON SYMPTOMS

- Increased/frequent urination
- Increased/unusual thirst
- Tiredness, lack of energy
- Poor healing of wounds
- Loss of weight
- Itchiness of the vagina
- Blurred vision
- Tingling and numbness in the hands or feet

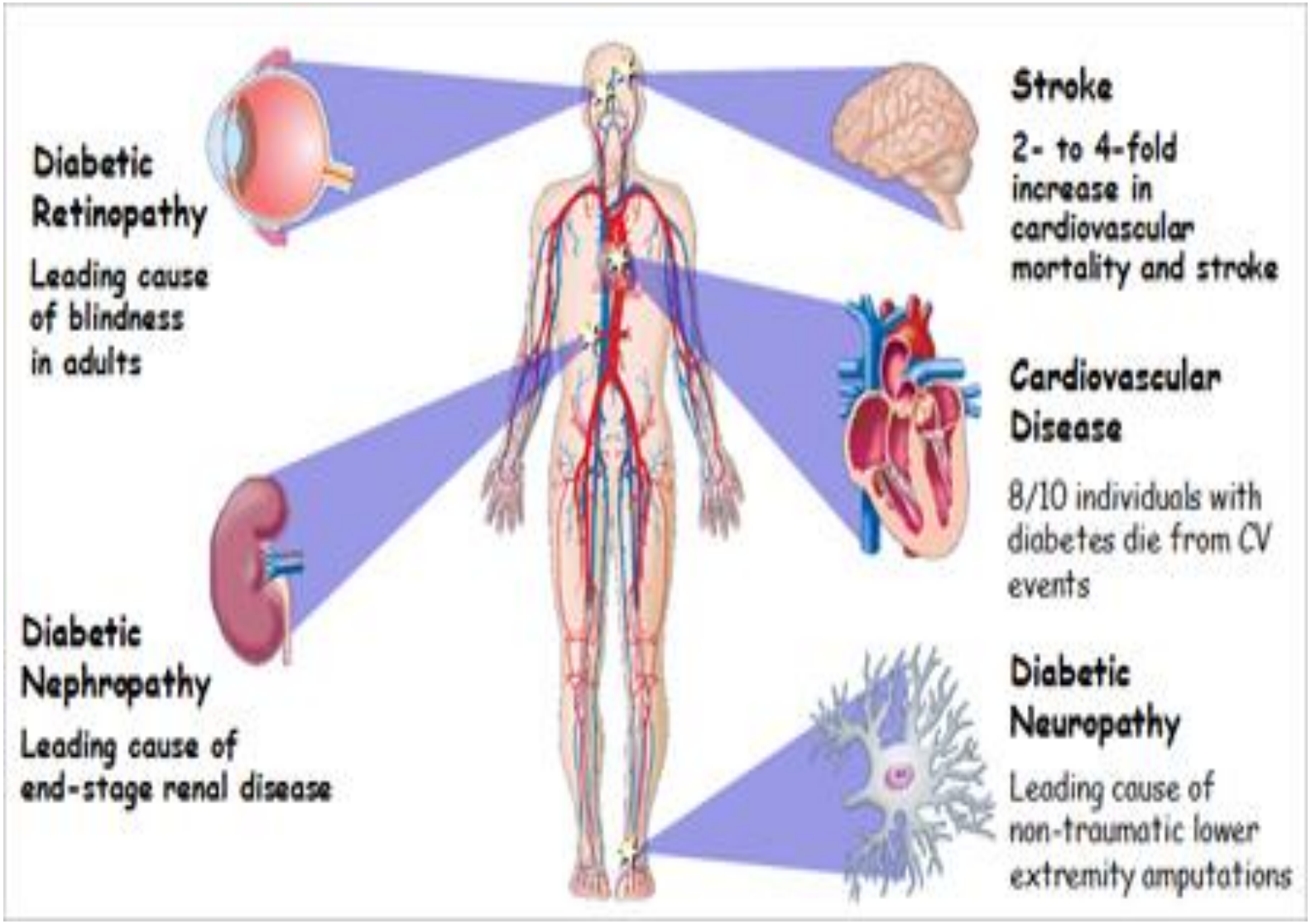
COMMON SYMPTOMS (cont)

- NB. Many people, especially older people, who have type 2 diabetes may show no symptoms. Diabetes may be discovered through routine blood tests.
- 90% of diabetic patients have type 2 diabetes (insulin resistant diabetes)

EARLY DIAGNOSIS & MANAGEMENT

- Diabetes is a serious illness and if not detected early can result in complications
- A person over the age of 40, with risk factors, should be tested on a regular basis.
- Any person experiencing any of the symptoms mentioned, needs to go to a local clinic to be tested for diabetes.
- not properly managed it could result in a variety of complications.
- These complications include heart disease, visual impairment and blindness, amputation, kidney disease, erectile dysfunction or impotence in men
- Therefore, early diagnosis and proper management is extremely important to ensure that complications are delayed or prevented

COMPLICATIONS




Reduce the risk of complications
(D.C.C.T. & U.K.P.D.S. Studies)
Follow the prescribed diet, exercise & treatment regimen
Monitor your sugar level regularly
Lead a healthy & vibrant life
Blindness
Heart Disease
Kidney Disease
Impotence
Amputation
Don't let diabetes take control

NON-MEDICAL MANAGEMENT OF DIABETES

Health Promoters and Community Health Workers must support persons with diabetes to follow a healthy eating plan:

- Eat breads and cereals (oats, maize, rye, wheat); legumes (dried beans, peas, lentils); vegetables and fruit.
- Steam vegetables, bake or grill instead of frying
- Limit sugar intake – avoid fizzy drinks, cakes, sweets
- Use little or no fat – remove extra fat from meat, remove chicken skin

NON-MEDICAL MANAGEMENT OF DIABETES

- Ideal is to eat 5 small meals at regular intervals. However, it is understandable that some people don't have much food. It is important to then divide the food they have into appropriate portion sizes over 2 to 3 meals
- Use salt sparingly – too much salt may cause high blood pressure
- Drink 6 – 8 glasses of fresh, clean water every day

DIABETES AND GUM DISEASE

- A person with poorly managed and/or uncontrolled diabetes has a greater chance of developing gum disease
- The higher the blood sugar levels, the greater the risk and seriousness of gum disease
- It is therefore important to identify gum disease early and refer for treatment
- With gum disease, bacteria (germs) infect the mouth causing swelling and redness of the gum. The infection reduces the effectiveness of insulin resulting in high blood sugar levels

FOOT CARE FOR DIABETIC PATIENTS

- Check feet daily - use mirror if needed
- Wash feet daily - dry carefully between toes
- Put cream on soles and heels daily
- Do not walk without shoes
- Check the inside of shoes and socks before putting them on
- Wear shoes that is comfortable and fit correct
- Do not use hot water bottles or put your feet to close to a fire
- Proper nail care
- Ask your doctor or nurse to check your feet every year

CONCLUSION

- Following a healthy diet, attaining and maintaining a healthy body weight, exercising regularly, reducing stress and not smoking are important in the prevention of diabetes
- However, should a person be diagnosed with diabetes, it is important for them to know that this diagnosis does not mean the end of a normal lifestyle.
- Knowing how to manage the condition will keep a person healthy and enable them to lead a normal lifestyle.