Fighting diabetes mellitus part two.

Last week we started with what DM is, the symptoms and the complications. Today we shall continue with the complications, the treatments, dietary advice and the preventive approach, if any.

Still on the acute complications, the next thing we shall be mentioning is diabetic ketoacidosis, or simply put, diabetes coma.
Diabetes coma occurs when the blood sugar becomes extremely high. However high blood glucose alone is not enough to put a patient into coma, there must be a trigger. One of the major trigger is infection, most times chest infection but infection in other part of the body system too could be a trigger. Therefore, a diabetes patient with blood glucose of say 25mmol/l for instance with respiratory tract infection or diahorrhea as simple as it sounds may suddenly become unconscious. This is obviously one of the reasons why I always advise people to go for a routine checkup to know their diabetes status. Some people may not be aware of their status, go about with such high blood glucose unknowingly. So what happens with a simple cough? Unconsciousness!!! A lot of witches and wizards have been blamed for this simple phenomenon. Patients in this condition usually present in unconscious state with shallow breathing and most times have ketone breath. Response depends on how fast the patient report to the hospital, the willingness of the relatives to carry out all investigations as at when due and the procurement of drugs. The competency of the health facility is also another factor in good prognosis.
Such patients are expected to have blood glucose test done like every three hours, have the electrolytes check regularly while on admission. The management includes rehydration with normal saline insulin therapy, antibiotics, and electrolytes replacements.

Chronic complications

These are broadly classified into two, viz
Vascular (involving blood vessels) and non vascular (does not involve blood vessels)
Vascular complications are further sub divided into
Macrovascular complications and
Microvascular complications.

Macrovascular

Simply put, these are complications that involved ‘big blood vessels’. These include complications like peripheral vascular disease, stroke and myocardial infarction. These are among the leading causes of mortality in uncontrolled diabetes. Myocardial infarction could be responsible for cases of sudden death or ‘heart attack’ in diabetic patients. There is blockage of the vessels of the heart as a result of arteriosclerosis which is accumulation of fat in the blood vessels thereby narrowing the lumen of the vessels preventing the affected organ (in this case the heart) from getting enough blood supply. When this happens, the affected organs start dying until it completely lost function.

Microvascular
These include, diabetes retinopathy (involving the eyes), diabetes nephropathy (involving the kidney) and diabetes neuropathy.
Diabetes retinopathy, if not detected early can lead to total visual loss in the patient. It affects the arteries of the retina.
Diabetes nephropathy affects the vessels of the kidneys and is most times responsible for the kidney failures that happen in diabetics. While the neuropathy affects the nerve and it's responsible for all the numbness, pareasthesia, and tingling sensations that patients experience.

Other non vascular complications include, recurrent boils, styes (boil on the eye lid), and loss of libido which is a major concern in men with DM.

Diabetic foot.
Diabetic foot ulcer is one important complication that must be given attention to while discussing diabetes. Like in our opening discussion last week, a lot of diabetics come down with this illness either because they are not aware of their status or they are not aware of the care of the feet in diabetic. It should be noted that because of the presence of high glucose in the blood, wound healing in uncontrolled diabetes mellitus is very poor. Therefore when these group of people come down with wound it takes a long time to heal. More so, because of the complication of neuropathy, many a diabetic will not be aware of when the wound was sustained. The neuropathy will not allow them to feel any pain and as such they assume all is well when in actual fact nothing is well with the leg. Most times, it is a neighbor or family member that call their attention to the wound or when the wound becomes so septic that it starts releasing foul smelling discharge. Typically, diabetes patients should be taught on the care of the feet when newly diagnosed.

Care of the feet
Avoid wearing of tight stockings
Avoid tightly fitted shoe
Clean and examine feet every night before sleep
Dry foot with napkin or towel before wearing shoe
Avoid cutting of nails with blades, preferably someone else should do the cutting of the nails for you
Report to your managing physician as soon as you notice any wound on the foot no matter how small

Simple and basic, proper care of the feet will go a long way in preventing the patient from becoming an amputee.

Diabetes in pregnancy.
A lot of people claim that diabetes patient cannot and should not attempt to get pregnant. I get that a lot in the course of my practice. In actual fact nothing stops a diabetic from getting pregnant or going into labour.
Sometimes the diabetes happens for the first time in pregnancy. In this group of people, the disease may disappear as soon as the patient delivers. Certain things are responsible for this which is beyond the scope of this article. In other people, they were a known diabetes patient

before they conceive. In this group of patients, the treatment will still continue even after they deliver.
Diabetes in pregnancy is a potentially serious case especially when the blood glucose is not controlled. For instance, uncontrolled diabetes in the first trimester can lead to congenital malformation. Macrosomic baby (big baby) is another problem that could be encountered when the patient does not have good control. Glucose crosses from mother to the foetus but insulin does not, as a result of this, the pancreas of the foetus developed 'strong' beta cells to deal with the situation of hyperglycemia. Therefore, problem occurs as soon as the umbilical cord is severed, the baby now finds itself in an environment where the glucose is not as much as before. If good care is not taking, within hours the baby may die of hypoglycemia because of the effect of insulin produced by the 'strong' beta cells that the foetus has developed in the womb.
This is why it is important for every pregnant woman to have their blood glucose check at booking and later in pregnancy. For those who are confirmed to be diabetic, they are to commence insulin therapy as most of the oral anti diabetic drugs could be teratogenic (cause congenital malformation in the baby).
For a diabetic patient with good glycemic control, there is no fear about pregnancy, labour and delivery. The baby as soon as it's delivered should be placed on intravenous glucose which will go slowly for a day or two until the baby body system get used to the normal glycemic environment.

Management of diabetes mellitus.

The management of diabetes mellitus involves both the dietary control and the drug treatment.

Drug therapy

For uncomplicated diabetes metformin is a drug of choice. Some physicians prefer to combine it with a sulphonyurea for a more potent effect. For complicated cases and type 1 diabetes, insulin is a drug of choice.

Dietary modification

Lifestyle and diets are very important part of the management. We have all heard a lot of noise about diabetic food. Really, there is nothing like diabetic food. Diabetic food is nothing but normal food for a healthy living.
Many a time people tend to mislead diabetes patients about the food they should eat or not. There are two types of carbohydrate diets. We have the simple carbohydrate and the complex carbohydrate.
The simple carbohydrates are the table sugar, the soft drinks, the cakes, biscuits, ice cream, etc. These are the group of carbohydrates that are strictly forbidden and should be discouraged completely because they are of high glycemic value. Others in this group are the table honey, the banana, the ripe plantains, energy drinks and the likes.
The other group of carbohydrates, the complex carbohydrates does not really give much problem and they are still expected to take 60% of the diet of a diabetic patient. These include the normal swallow food like fufu, garri, pupuru, rice, wheat, unripe plantain and the rest. Yam and pounded yam are frown against because yam is of high glycemic index. Some schools of thought believe that such carbohydrate food should be of little quantity and must be eaten with vegetables. I believe it should be of moderate quantity.

Protein food, especially plant proteins should be encouraged.
Diabetes patients should engage in a form of exercise to avoid sedentary lifestyle. Brisk walking has generally been accepted as the best form of exercise.
Alcohol should be reduced to the barest minimum and cigarette smoking is not to be negotiated. It must be stopped. This is because apart from other problems of smoking, it also increases the risk of arteriosclerosis which is a possible problem in diabetics.

Prevention

The truth about diabetes is that we are all at risk of the disease if we do not watch what we eat and monitor our lifestyle. The best way to keep a tag on diabetes is to do routine blood glucose check. If the result is at the borderline, one may send for oral glucose tolerant test.
Diabetes is a very dangerous disease when not properly controlled. However, when managed well, it is a very simple disease.
Till next week, always remember that in medicine, the earlier is always better

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