

HEALTH & Beauty

New Vision YOUR WELLNESS GUIDE

Monday, March 5, 2018

THE BATTLE AGAINST KIDNEY DISEASE

By Jacqueline Emodek

Thursday, March 8 is World Kidney Day, which is commemorated on the second Thursday in March. It is a global awareness campaign focusing on the importance of the kidneys and reducing the frequency of kidney disease. Because this year's World Kidney Day also falls on Women's Day, the theme for commemorating it is *Kidneys and Women's Health: Include, Value, Empower*.

The theme focuses on the importance of women's health and specifically their kidney health.

According to Dr Robert Kalyesubula, the president of the Uganda Kidney Foundation, there are two categories of kidney problems. These are chronic kidney injury or failure which happens

progressively over a long period of time or acute kidney injury or failure which happens within a few hours or days.

A study titled *Kidney disease in Uganda: a community based study* by R. Kalyesubula et al indicates a high prevalence of kidney disease at 15.2%; 2.5% for chronic kidney disease and 0.1% with kidney failure, which is the last stage of chronic kidney disease.

Kalyesubula says women's kidneys are mostly affected during pregnancy when they suffer from pre-eclampsia or eclampsia. Pre-eclampsia is a disorder of pregnancy in which one experiences high blood pressure, body swelling and large amounts of protein in the urine or other organ dysfunction. He adds that when an expectant mother with the above symptoms starts convulsing then that is referred to as eclampsia, which is fatal.

One sign of kidney damage is the presence of protein in one's urine. "Protein should not be in urine and when that happens, the kidney is damaged. As a result, one will experience an electrolyte

Akampulira seeks help

While expecting her first child, Loreen Akampulira was diagnosed with pre-eclampsia (a condition that presents with swelling of the body and high blood pressure among pregnant women). By the time she was six month pregnant, her condition had become so severe that doctors carried out an emergency C-section to deliver the baby to save her life. The baby died after the operation.

Akampulira was later told that the pre-eclampsia had damaged her kidneys. Doctors recommended a kidney transplant, which would cost sh125m. Akampulira and her husband cannot afford the procedure and in the meantime, she is undergoing regular dialysis at a cost of sh300,000 per week.

She appeals to well-wishers for financial help for her to pay for the dialysis and also undergo a kidney transplant.

Any assistance for her can be sent to 0700458000/0782384448 or deposited in Stanbic Bank account number 0121411670701 in the name of Obed Akampulira.



Loreen Akampulira

imbalance and swelling of the body. This can lead to liver injury as well as death of the mother, baby or both," Kalyesubula says.

When a patient suffers liver damage, it means toxins will not be eliminated from

the body and the patient will present with bleeding and low blood levels (anaemia).

Kalyesubula adds that a woman's kidneys can also be affected when she has an abortion and bleeds heavily or gets an infection like puerperal sepsis (bacterial infections of the female reproductive tract following childbirth or miscarriage).

An infection can cause the body's immune system to widen the blood vessels, which can subsequently cause low blood pressure, which will make the kidneys shut down. Other conditions that can cause this are severe pancreatitis, severe trauma and postpartum haemorrhage.

Dr David Martin Atuhe, a physician, also discloses that women's kidneys can be affected when they suffer from recurrent urinary tract infections (UTIs). When a UTI is not treated, it can ascend into the bladder, ureters and finally the kidneys.

However, Atuhe notes that although UTIs are common in women, the ascending infections are more common in men because they do not present with early symptoms of the condition. Thus they do not seek treatment early and by the time a man is diagnosed, the UTI it is usually severe.

Women with cervical cancer and/or ovarian are also prone to kidney disease. The cancer pushes the ureters (the ducts by which urine passes from the kidney to the bladder) and destroys them. In men cancer of the prostate blocks the outlet of the urinary bladder.

Kalyesubula adds that generally, one can also suffer from kidney stones which cause obstruction in the organ. These stones are a result of accumulation of calcium which is high in people living in a dry environment, those who consume a lot of meat and those who do not drink enough water.

Atuhe explains that typically stones in the kidneys but can be passed through urine. However, if one is not well hydrated or hardly passes urine, which happens in a dry environment, the stones pile up forming big blocks.

Chronic kidney disease

On the other hand, Kalyesubula explains that chronic kidney disease is common in people who are obese and have systemic disease such as diabetes, high blood pressure and HIV, in addition to people who take multiple drugs, especially painkillers and antibiotics.

"When someone takes painkillers (non-steroid anti-inflammatory drugs) for a long

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To avoid kidney disease, people should exercise regularly and drink plenty of water

HEALTH

VIEW POINT



Lillian Namusoke Magezi

Handling kidney disease

Of late, cases of non-communicable diseases have been on the rise in Uganda. One such condition is chronic kidney disease. Worldwide, every year, the second Thursday of March is dedicated to raising awareness about kidney disease. This year, since the day has fallen on March 8, which is also International Women's Day, the focus has been put on raising awareness about kidneys and women's health. Therefore, in our lead story today, we have highlighted why it is important for women (and everyone else) to maintain their kidneys in tiptop shape. In the story find factors that predispose women to kidney disease and how they can be managed. As we prepare to commemorate the day on Thursday, go for a checkup to find out how your kidneys are functioning.

Getting a transplant

Uganda does not conduct kidney transplants. Kalyesubula says patients are referred to India and spend over \$25,000. In the social arena, Sandra Luyima Mukasa, a sociologist with the Uganda Kidney Foundation, says sociologists complement the renal support systems by influencing the social environments of kidney failure patients. "We do this through building the resilience of kidney failure patients and primary caregivers, strengthening the capacity of families, traditional family ties and community caring responses," she says.

Undiagnosed kidney disease, a silent killer

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time, they are predisposed to chronic kidney disease because such drugs damage the kidney directly as they contain a compound that can either punch holes in the kidney or affect the hormones that regulate the kidney blood flow. As a result they make the vessels constrict so that the organ does not receive blood," he says.

In children, kidney disease can be congenital where one is born with abnormal kidneys or one kidney or the condition can be inherited.

Aduhe says losing large volumes of fluids through constant vomiting and diarrhoea can cause a person's kidneys to malfunction because the human body needs water to maintain enough blood and other fluids to function properly.

Complications

The challenge with kidney disease is that it hardly shows any manifestations. A person with chronic kidney disease can even have it for up to five years before there are signs.

"Chronic kidney disease progresses in five stages and most people start showing symptoms when they are in stage four or five, and usually someone has already suffered complications. However, one can also have acute kidney injury or failure in 24 hours, which can arise when one has been involved in an accident and has lost a lot of blood and then the kidney will be affected," Kalyesubula says.

Signs and symptoms

Although the onset of symptoms for chronic kidney disease can be delayed, there are common signs to look out for, which are brought on by the complications of kidney disease.

Dr Peace Bagasha, a nephrologist (kidney expert) at Mulago Hospital, explains

"When your kidney is not functioning well, all the water that should come out through urine is unable to do so because urine is not being formed. The water ends up in parts of the body it should not be, thus causing body

On any normal day, one has to take toilet breaks to urinate. You will also notice that the urge to urinate usually heightens on a cold day, when you have had a lot of fluids to drink or even on a night out when you have had too much alcohol.

Well this process of urine production and excretion is one of the important roles of the kidneys in our body. Dr Robert Kalyesubula says typically everyone has two kidneys; they are bean-shaped the size of one's fists and are located at the level of your elbow usually behind your abdomen and protected by the rib cage.

Their major role is to keep the environment of the body under control by regulating body fluids and urine. They decide how much fluid to put out (urine) and how much to retain.

"It will help you release some fluid if you have a lot or retain it if you have less, that is why on a hot day someone will urinate less than on a cold day," explains Dr David Martin Aduhe, a physician in the nephrology unit of St Francis Nsambya Hospital.

So the kidney sieves fluids and excretes them into urine. "Every minute a quarter of one's

swelling."

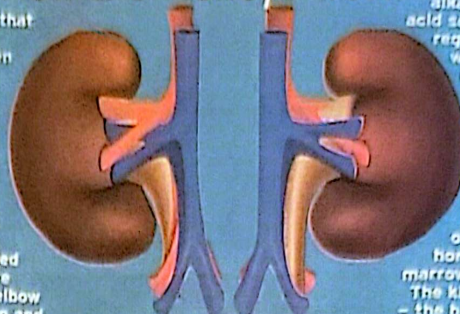
Consequently, patients will develop swelling of the face, feet, hands and abdomen. When this water goes into the lungs the patient will have difficulty in breathing.

One can also experience pain in the loins and when passing urine, especially if one has an infection or kidney stones.

Dr Bagasha adds that apart from water in the body other waste products which should be excreted in urine such as salts, like potassium, will be retained. Potassium will cause the heart to have an abnormal rhythm and sometimes even stop beating, causing sudden death.

"Other waste products like urea will be deposited in the skin and cause the patient to develop a lot of itching. It will also be breathed out during the respiratory process and the patient will develop 'uremic

How the kidneys work



Kidneys keep the environment of the body under control

blood passes through the kidneys and while there, it is sieved. About 15 litres of fluid are sieved daily, but one only urinates one-and-a-half litres. During the process some fluids are reabsorbed into the body and chemicals are secreted into urine," Aduhe explains.

Through these processes, toxins like urea and electrolytes are diluted and excreted in urine while the levels of acid and other chemicals like ammonia and potassium are regulated in the body.

"Everything in your blood works

at a certain pH which is a balance between acidic and alkalinity. If you have an acid some processes of the body will not work because the pH is not like acids so the body comes in as a buffer to regulate the acid," Aduhe says.

Through conserving the balance between acidic and alkaline, the kidneys also regulate blood pressure. It also fosters production of hormones which help the marrow to form the red blood cells.

The kidney also regulates the blood sugar level. When you eat food, your pancreas secretes a lot of insulin to break down it down. If all the food gets used up, insulin is still available and you will have low blood sugar.

"So the body will release a hormone called insulin which breaks down the insulin so you do not suffer from low blood sugar," Aduhe explains.

The kidneys also play a big role in bone metabolism (manufacture and breakdown of bones) because they release activated vitamin D which absorbs calcium from the food one eats.

breath', which is urine like smell in their breath," Bagasha says.

Since the kidney also plays a role in the manufacturing of red blood cells, its dysfunction can lead to low levels of blood (anaemia).

Other symptoms of kidney damage are lack of appetite, getting easily tired because you have less blood, you will be more aware of your heartbeat and even have convulsions and experience confusion when the toxins reach one's brain because the kidney is not excreting them.

Diagnosis

According to Dr Anthony Batte, a paediatric nephrologist at Mulago Hospital, a number of tests are carried out by a doctor to confirm that one has kidney disease and its cause.

A blood test is usually carried out to assess how good one's

kidneys are clearing waste products from the blood and doctors look out for one's creatinine levels.

"If your blood level of creatinine is found to be higher than normal then it is confirmed that your kidneys are not working well," he says.

After this, a number of tests are then done to see if your kidneys are managing to balance other blood components such as potassium, acid levels, phosphates and calcium, among others.

A urine test is also done and it assesses how well the kidney filter is working. It can indicate whether the kidneys are leaking proteins as they filter the blood, presence of an infection in the urinary system plus other indicators of kidney disease such as blood in urine.

Experts also conduct an ultrasound scan of the kidneys

to look at the appearance, structure, position, detect if the kidneys or any part of the urine drainage system.

"Occasionally, a doctor may perform a kidney biopsy where a small sample of the kidney tissue is taken using a thin needle and examined under a microscope to determine the type and cause of the kidney disease," Batte says.

Kalyesubula says urine test can cost sh10,000 while a blood test can cost sh20,000 and an abdominal ultrasound scan can cost sh80,000 to sh100,000.

Aside from these, a doctor may request for a number of other tests to identify if you have other conditions which could have resulted into kidney disease. Batte says some of these tests may be for high blood pressure, diabetes mellitus, sickle cell disease, liver disease and HIV.

Treatment and prevention

Prevention

Kalyesubula says prevention of kidney disease first comes with self-awareness and knowing the typical causes. Therefore, people at increased risk like those with diabetes and high blood pressure, those taking ARVs and chronic painkillers should always go for check-up for their kidneys at least once a year.

Research on your family's health history to find out if there's kidney disease and take preventive measures.

Experts advise that one should also avoid risk factors such as smoking, drinking alcohol and taking a lot of

salt in food (more than a tea spoon in a day).

■ One should also drink a lot of water, at least two litres a day, regularly.

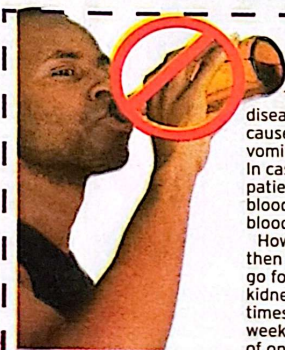
■ Check on blood pressure.

■ Keep fit and exercise regularly.

■ Eating healthily to keep one's weight in check and control blood sugar.

■ Avoid self-prescription and buying over-the-counter drugs.

■ Since the focus is on Women, you should effectively treat urinary tract infections, monitor your blood pressure during pregnancy and also go for regular cancer screening for cervical and ovarian cancers.



Avoid drinking alcohol

Treatment

The treatment of kidney disease depends on the cause. If it is caused by infections, diarrhoea and vomiting, these have to be treated. In case of chronic liver disease the patient requires drugs to control the blood pressure, treat diabetes and blood enrichment like iron.

However, if these do not work, then the patient is recommended to go for dialysis, which is an artificial kidney that cleans one's blood three times a week. It costs about sh1.5m weekly. This procedure is for the rest of one's life if one has chronic kidney disease.