

## Kidney transplantation: When and where to perform

DR SHAHJADA SELIM

If patients have advanced and permanent kidney failure, kidney transplantation is the effective treatment option that allows them to live like the normal.

A successful transplant needs coordinated efforts from the whole healthcare team including nephrologists, transplant surgeon, transplant coordinator, pharmacist, dietitian and counsellor. But the most important members of the team are the patients and their families. As a patient, a family member, a relative, we should know the facts about kidney transplant to help the entire team to get the best possible outcome.

Kidney transplantation is a procedure that replaces the failed kidney with a healthy one from another person living or dead. However, transplantation is not for everyone. The nephrologists will select patients for renal transplantation and explained the possible outcome.

The pre-transplant evaluation may require several visits over the course of several weeks or even

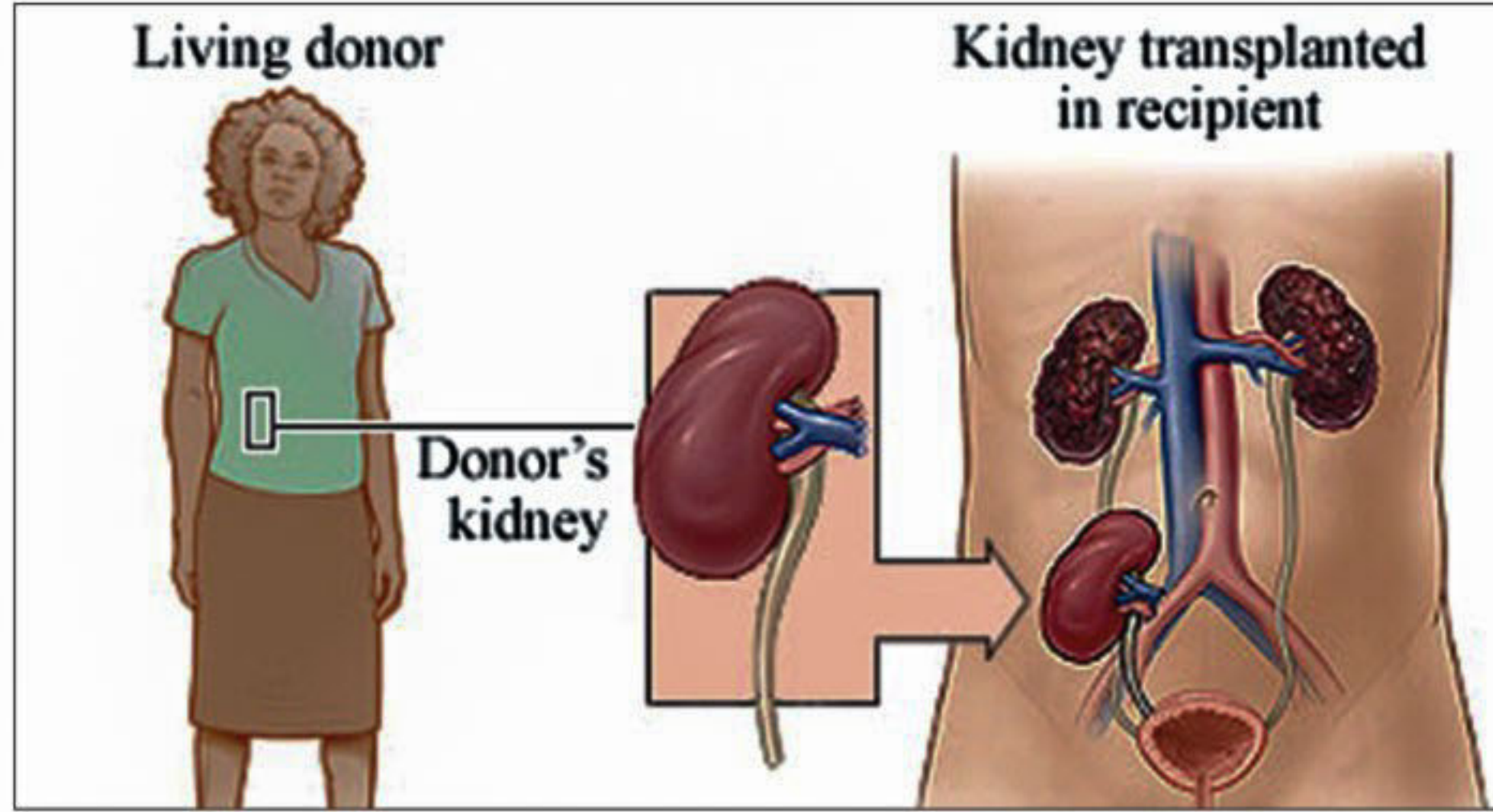
months. Patients will need to have blood drawn and x-rays take, will be tested for blood type and other matching factors that determine whether body will accept an available kidney. Cancer, a serious infection, or significant cardiovascular disease would make transplantation unlikely to succeed.

If a family member or friend wants to donate a kidney, s/he will need to be evaluated for general health and to see whether the kidney is a good match or not. Suitability of donated kidney recipient is initially based on two factors.

- Blood type: Recipient's blood type must be compatible with the donor's blood type.

- HLA factors. HLA stands for human leukocyte antigen, a genetic marker located on the surface of white blood cells.

After transplantation, there is a fear of rejection. Recipients can help prevent rejection by taking medicines (Immunosuppressant's) and following diet. Watching for signs of rejection — like fever or soreness in the area of the new kidney or a change in the amount of urine forma-



tion—is important. Reporting to the doctor concerned is necessary if any changes observed. Even if the recipients do everything they are supposed to do, body may still reject the new kidney and patients may need to go back on dialysis. So patient after receiving a donated kidney should be extremely cautious.

Treatment for kidney failure is expensive, but now a days, it is frequently performed in different hospitals in Bangladesh which lessen the expenditures. Some more new centres are coming forward to serve patients with renal failure.

There are certain Government and private hospitals which have the sophisticated set up for kidney transplantation. National Institute of Kidney Diseases and Urology (NIKDU), Bangabandhu Sheikh Mujib Medical University (BSMMU) are the centres for transplantation among Government set up whereas National Kidney Foundation Hospital, BIRDEM Hospital, Popular Specialised Hospital, Labaid Specialised Hospital, Apollo Hospitals

Dhaka, United Hospital have transplantation facilities among private settings.

There are two types of donation options: living donor and deceased donor (cadaveric) kidney transplant. In abroad, most transplanted kidneys come from people who have died. But in Bangladesh, cadaveric kidney transplantation has not been yet performed. Because, awareness regarding cadaveric kidney donation is extremely low. So, hardly any cadaveric kidney is found for transplantation.

Many suitable kidneys go unused because family members of potential donors do not know their loved one's wishes. People who wish to donate their organs should talk about this issue with their families and National Kidney Foundation which provides organ donor cards for people who wish to give the precious live-saving gift when they die.

A properly completed organ donor card notifies medical officials that the donor decided to donate his/her organs.

Most living people, however, can donate a kidney with little risk. In Bangladesh, according to the current law, only relatives can donate organ. This law has imposed a bar to many patients who need kidney transplant but cannot receive as they cannot manage a relative to donate kidney. They cannot receive kidney from anonymous donor. Again, the number of kidneys donated by relatives is extremely low. A cadaveric kidney donation can remove this disadvantage and also lessen the incidence of organ trading.

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## Antibiotics for malaria — a novel option for future medicine

If mice are administered an antibiotic for three days and are simultaneously infected with malaria, no parasites appear in the blood and life-threatening disease is averted. In addition, the animals treated in this manner also develop robust, long-term immunity against subsequent infections. This innovative discovery has opened a new window in the prevention of malaria and its fatal complications.

This breakthrough innovation was made by the team headed by Dr Steffen Borrmann from the Department of Infectious Diseases at Heidelberg University Hospital in cooperation with Dr Kai Matuschewski of the Max Planck Institute for Infection Biology in Berlin. The scientists think that safe and affordable prophylaxis with antibiotics in residents of areas with high malaria transmission has the potential to be used as a natural needle-free vaccination against malaria.

Malaria is still the most common and most dangerous vector-borne disease. Globally, over three billion people are at risk of being infected with malaria. There is still no medicine that reliably protects people from infection and simultaneously promotes building up long-term immunity.

The scientists developed the following immunisation model on mice. They showed that antibiotic slowed growth of dormant parasite in liver and prevented the blood from becoming infected. The typical disease symptoms such as fever and if left untreated, fatal malaria, which are caused solely by the blood stage forms of the parasite, did not occur. The parasites that accumulated in the liver gave the immune system sufficient stimulus to develop robust, long-term immunity. After adding antibiotic (Clindamycin or Azithromycin) all animals had complete protection against malaria.

This of course raises the question of whether these results can be transferred to humans. Under field conditions, mosquito bites confront the human body with frequent, but rather low concentrations of parasites. When mimicking this infection mode in the mouse model, 30 percent of the mice were still protected. For 85 percent of the mice that were still infected, the malaria did not affect the brain, indicating a favorable prognosis. The antibiotics used are reasonably priced medicines with few and self-limiting side effects. The periodic, prophylactic administration of antibiotics to people in malaria regions has the potential to be used as a "needle-free", natural vaccination. This would give us an additional powerful tool against malaria," says Dr Steffen Borrmann. Dr Kai Matuschewski adds, "A major motivation for our study was to test a simple concept that can also be realised in malaria regions. We are convinced that weakened parasites offer the best protection against a complex parasitic disease such as malaria."

Source: Science Translational Medicine

## How to deal with heavy menstrual bleeding

DR RITU PRASHANT AGRAWAL



Heavy menstrual bleeding, medically called menorrhagia is the excessive or prolonged bleeding during menstruation. This may be an alarming symptom which needs specialist check-up and evaluation and should never be neglected.

In my clinical practice, patients often ask me, how they would understand that they are suffering from

menorrhagia and when they need to consult a gynaecologist. A woman should seek a specialist's help when she is having excessive flow of blood in her every cycle needing one or more sanitary pads or tampons every hour for several consecutive hours or need to use double sanitary protection to control menstrual flow or menstrual flow contains large blood clots. Also there may be prolonged flow for longer than seven days.

Woman having menorrhagia may experience some symptoms like tiredness, fatigability, shortness of breath and signs like pallor in face, palm and body skin.

When it occurs in young girls, menorrhagia is mostly caused by inherited bleeding disorders like vitamin K deficiency, deficiency of blood clotting disorders. Common medical conditions like thyroid disorders,

hypertension can also lead to heavy menstrual bleeding. Moreover, use of medications like aspirin or anticoagulants like warfarin, pregnancy complications, use of intrauterine device like Copper T and misuse of oral contraceptive pills can cause it. Hormonal imbalance between oestrogen and progesterone, dysfunction of ovaries, benign tumours of uterus like fibroids and polyps and cancer of uterus and cervix can also contribute to heavy menstrual bleeding.

While you consult a doctor, the doctor may ask you about your medical history and menstrual cycles. So, it is better to have your menstrual record with you. Specific treatment of menorrhagia depends on age and fertility status of patient and also underlying causes of it. The modality of treatment is decided on personal preference of the

patient and also on the choice and skill of gynaecologists.

Menorrhagia can be treated by medical or surgical options. In younger patients where further fertility is required, medical treatment is preferred. Medical treatment includes hormone therapy commonly contraceptive pill, anti-inflammatory drugs. In surgical treatment, depending on severity of condition, there are four options available:

Dilatation and Curettage, Operative Hysteroscopy, Endometrial Ablation and Hysterectomy (removal of uterus). Among these options, the widely chosen one is Dilatation and Curettage commonly known as D&C. Hysterectomy is another preferred choice for menopausal women.

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## Know the facts about dental brace

Dental braces are small devices fitted onto the teeth that pull individual teeth or jaws in a desired direction. It is widely used to straighten teeth that have grown in crooked. For some people this may be a strictly cosmetic procedure. Unfortunately, there are myths and rumours about dental braces that can be off putting. If you are thinking of wearing dental braces but are unsure of the facts, then read on for answers to frequently asked questions about dental braces.

**Who can wear dental braces?**

Dental braces are available to both children and adults, though evidence suggests that they work better in younger people. There is no specific age at which a child can begin orthodontic treatment, but there must be enough adult teeth available to work with before dental braces can be fitted.

**What kind of dental braces are available?**

Most of the dental braces are



made of metal brackets. Plastic and ceramic brackets are also available, and many people prefer these because they are less visible.

**Do dental braces hurt?**

Immediately after dental braces are fitted there may be some discomfort. Shifting teeth and jaws as well as alien brackets can all cause discomfort, but there should be no real pain. Patients who experience any discomfort should report to their dentist or orthodontist immediately as adjustments may be able to be made.

**Will I be able to speak normally?**

Sometimes when a brace is fitted, it may affect your speech and cause problems

**How long do dental braces usually stay on?**

Most patients wear dental braces for one or two years. Some may only need to wear them for a few months, and others may need to wear them for longer than two years. Throughout this time, visits to the dentist or orthodontist will need to be carried out every four to six weeks for adjustments.

**Can I eat normally?**

Eating the wrong foods can damage or even break your brace. For the first few days, it may be better to keep to soft foods. Whether you have a removable or a fixed brace you should avoid sticky, chewy and sugary foods. Chewing-gum is not recommended as it can stick to your brace. Avoid hard foods such as whole apples, carrots, French bread and crusty rolls. These foods could break the orthodontic wires and brackets.

**How should I clean my mouth and brace?**

Clean your teeth and the brace thoroughly after each meal. Pay special attention to each individual tooth and the gum line around it.

in pronouncing certain words. Lipping may also be a problem at first, but most people soon adapt and quickly begin to speak clearly within a few days.

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The write up is compiled by Dr Kazi Niazur Rahman, a Dental Surgeon working at Dhaka Dental College & Hospital. E-mail: dr\_niaz24@yahoo.com

## Knowing for better living

In Bangladesh...

**50%** of pregnant women are anemic & **26%** women don't know that they have iron deficiency.

To cure anemia...

Eat plenty of iron & vitamin-rich foods like banana, green and leafy vegetables etc.

Take care of pregnant women and ensure their iron & vitamin-rich diet every day. Consult doctor in emergency.

Courtesy...