Star health

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Living with diabetes & discipline

STAR HEALTH DESK

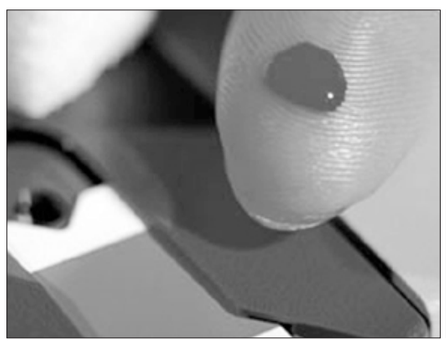
Diabetes mellitus is a chronic disease caused by inherited and/or acquired deficiency in production of insulin by the pancreas, or by the ineffectiveness of the insulin produced. Such a deficiency results in increased concentrations of glucose in the blood, which in turn damage many of the body's systems, in particular the blood vessels and nerves.

There are two principle forms of diabetes:

Type 1 diabetes (formerly known as insulin-dependent) in which the pancreas fails to produce the insulin which is essential for survival. This form develops most frequently in children and adolescents, but is being increasingly noted later in life.

Type 2 diabetes (formerly named non-insulin-dependent) which results from the body's inability to respond properly to the action of insulin produced by the pancreas. Type 2 diabetes is much more common and accounts for around 90 per cent of all diabetes cases. It occurs most frequently in adults, but is being noted increasingly in adolescents as well.

Certain genetic markers have been shown to increase the risk of developing Type 1 diabetes. Type 2 diabetes is strongly familial, but it is only recently that some genes have been consistently associated with increased risk for Type 2 diabetes in certain populations.



Diabetes in pregnancy may give rise to several adverse outcomes, including congenital malformations, increased birth weight and an elevated risk of perinatal mortality. Strict metabolic control may reduce these risks to the level of those of non-diabetic expectant mothers.

Symptoms

The symptoms of diabetes may be pronounced, subdued, or even absent.

λ In Type 1 diabetes, the classic symptoms are excessive secretion of urine (polyuria), thirst (polydipsia), weight loss and tiredness.

λ These symptoms may be less marked in Type 2 diabetes. In this form, it can also happen that no early symptoms appear and the disease is only diagnosed several years after its onset, when complications are already present.

Treatment

λ The mainstay of non-pharmacological diabetes treatment is diet and physical activity.

λ About 40 per cent of diabetes sufferers require oral agents for satisfactory blood glucose control, and some 40 per cent need insulin injections.

λ People with Type 1 diabetes are usually totally dependent on insulin injections for survival. Such people require daily administration of insulin. The majority of people suffering from diabetes have the Type 2 form. Although they do not depend on insulin for survival, about one third of sufferers needs insulin for reducing their blood glucose levels.

Complications associated with diabetes mellitus

λ Diabetic retinopathy (defect in vision linked to diabetes) is a leading cause of blindness and visual disability. Diabetes mellitus is associated with damage to the small blood vessels in the retina, resulting in loss of vision. Findings, consistent from study to study, make it possible to suggest that, after 15 years of diabetes, approximately 2 per cent of people become blind, while about 10 per cent develop severe visual handicap. Loss of vision due to certain types of glaucoma and cataract may also be more common in people with diabetes than in those without the disease.

λ Good metabolic control can delay the onset and progression of diabetic retinopathy. Loss of vision and blindness in persons with diabetes can be prevented by early detection and treatment of vision-threatening retinopathy: regular eye examinations and timely intervention with laser treatment, or through surgery in cases of advanced retinopathy.

λ Diabetes is among the leading causes of kidney failure, but its frequency varies between populations and is also related to the severity and duration of the disease. Several measures to slow down the progress of renal damage have been identified. They include control of high blood glucose, control of high blood pressure, intervention with medication in the early stage of kidney damage, and restriction of dietary protein. Screening and early detection of diabetic kidney disease are an important means of prevention.

λ Risk factors for heart disease in people with diabetes include smoking, high blood pressure, high serum cholesterol and obesity. Diabetes negates the protection from heart disease which pre-menopausal women without diabetes experience. Recognition and management of these conditions may delay or prevent heart disease in people with diabetes.

λ Diabetic neuropathy is probably the most common complication of diabetes. Studies suggest that up to 50 per cent of people with diabetes are affected to some degree. Major risk factors of this condition are the level and duration of elevated blood glucose. Neuropathy can lead to sensory loss and damage to the limbs. It is also a major cause of impotence and heart failure in diabetic men.

λ Diabetic foot disease, due to changes in blood vessels and nerves, often leads to ulceration and subsequent limb amputation. It is one of the most costly complications of diabetes, especially in communities with inadequate footwear. Diabetes is the most common cause of non-traumatic amputation of the lower limb, which may be prevented by regular inspection and good care of the foot.

Prevention

Large, population-based studies suggest that even moderate reduction in weight and only half an hour of walking each day reduced the incidence of diabetes by more than one half.

Diabetes is a serious and costly disease which is becoming increasingly common. However, there are ways of preventing it and/or controlling its progress.

Goals for people with Type I diabetes

Learning that you have Type I diabetes may be frightening, but you can help yourself by learning to control your condition. Keep the following goals in mind:

λ Becoming self-reliant and self-sufficient

λ Balancing diet, exercise, and insulin

λ Leading an active life that is as close to normal as possible

λ Protecting your heart, nerves, blood vessels, eyes, and kidneys by controlling your blood glucose level

λ Maintaining a good body weight

λ Growing and developing normally (especially for children)

Be aware of pelvic inflammatory disease

TAREQ SALAHUDDIN

Pelvic inflammatory disease (PID) is an infection that passes from the vagina through neck of the womb (cervix), the womb (uterus) and up to the fallopian tubes. The ovaries are sometimes also involved. Bacteria and other micro-organisms can find their way through the vagina and the cervix to the internal reproductive organs. A bacterial infection can cause inflammation in these organs and their surroundings. This most commonly occurs in the fallopian tubes.

What causes PID?

In some women, PID may result from a termination of pregnancy or following childbirth. Occasionally, it may be as a result of having sex with a new partner. But often no specific reason can be found.

Chlamydia trachomatis (in at least 50 per cent) is most commonly responsible for PID. Gonorrhoea (Neisseria gonorrhoea) is also a fairly common cause. Both may occur together. Various other germs are sometimes involved, but in at least 20 per cent of patients with PID no definite cause is found.

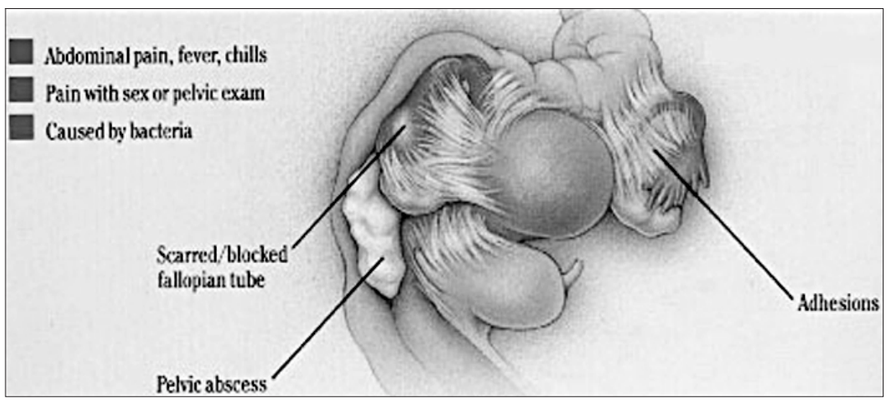
The disease is most likely to occur between the ages of 15 and 25, in sexually active women. Sometimes, however it comes as a result of spread of an infection, in the blood stream, from other parts of the body. Sometimes it is caused by spread of a germ from a nearby structure (as in appendicitis).

Symptoms

PID causes tenderness and pain in one or both sides of the lower abdomen. At the same time, it can cause fever and general discomfort. Finally, the infection can be accompanied by heavy, painful periods and sometimes a vaginal discharge.

Symptoms of pelvic inflammatory disease include:

! lower abdominal pain,
! fever up to 103 degrees,
! rapid pulse,
! chills,
! back pain,
! pain during sex,
! vaginal discharge.



The monthly periods may be altered. Some women will suffer from vaginal discharge, pain on passing urine and on making love and also from pain in the back passage (rectum).

A small percentage of sufferers develop scarred fallopian tubes, which can cause difficulties with falling pregnant (conceiving) in the future.

Diagnosis

If you suspect you have this, you should seek medical advice. A specimen of the mucus inside the vagina and also just inside the neck of the womb (cervix) may be taken for microbiological tests. Ultrasonography may be advised.

Treatment

Physicians normally prescribe antibiotics and advise the patient to keep warm and rest at home; hospitalisation is not usually necessary. In most cases, the inflammation subsides in a week or two. However, if the pain and soreness remain, this could be a sign that the infection has not gone away and might even have returned.

Fortunately, with proper treatment, this is uncommon. If Chlamydia is detected then the woman's sexual partner should also be tested. If he is infected, he will also require treatment.

You should avoid unprotected sex until both you and your partner have been checked by the doctor and treated if necessary.

Complications

Even though PID is a relatively harmless condition, if it is not treated quickly and effectively, it can result in permanent damage to the fallopian tubes.

This makes it more difficult for eggs and sperm to pass through and increases the risk of infertility or an ectopic pregnancy.

If the first or subsequent episodes of inflammation are not adequately treated then the condition can become chronic. If this happens, abscess (painful swollen area where pus forms, often accompanied by high temperature) may form in the pelvis and surgery is often required.

This may involve the loss of a fallopian tube, an ovary or, occasionally, the removal of the womb in a hysterectomy.

Prevention

Avoiding multiple sexual partners helps to prevent PID. Anyway, barrier methods of contraception help reduce the risk.

BREASTFEED YOUR BABY

WHO PHOTO

Every mother should breastfeed her child as because it has many advantages.

For the infant:

λ Breast milk safe, easier, available, cheap, sterile and hygienic

λ It is available in prepared form and at right temperature

λ No chance of contamination or adulteration

λ It contains all the ingredients in appropriate proportions for easy digestion

λ It fulfils nutritional requirements of all infants in the first 4-5 months of life

λ It contains antimicrobial factors and provides passive immunity to the baby.

λ It protects infants from diarrhoeal disease, gastroenteritis, allergy, respiratory infections, rickets, malnutrition and deficiency state

λ It protects baby from the tendency to become obese

λ It protects lack of calcium and magnesium

λ Sucking helps in development of jaw and teeth

λ It has laxative action

λ There is no danger of protein allergy

λ Protein in breast milk is better than the cow's milk

λ IQ of breastfed baby is better than the baby fed artificially

For mother:

λ Breastfeeding prevents ovarian and breast cancer

λ Breastfeeding prevents ovulation. Thus it acts as a natural contraceptive method

λ It helps in involution of uterus (return to the normal position after childbirth) and expulsion of placenta by releasing a hormone -- oxytocin

λ It establishes mother and child relationship

For nation and family:

λ It is cheap and effective

λ It decreases infant mortality ratio

λ Indirect way of family planning

Fatal relationships between teeth and heart

DR SHAH JAMAL MOLLA

There is a life threatening relationship between heart disease and dental surgery procedure. Everybody should keep in mind that every parts of human body are closely inter-related to each other. Careless treatment of one part of the body may causes serious damage to another part, even leading to death of human being.

Common heart diseases

λ Rheumatic valvular heart diseases

λ Infective endocarditis (peak incidence after age of 40 plus)

λ Atrial and ventricular septal defects (congenital)

λ Those who have prosthetic heart valve replacement

What happens?

There are about 80 types of micro-organisms like bacteria, fungi, rickettsia, spirochaete, chlamydia are present in the oral cavity. These are the normal inhabitants of oral cavity, take part in many types of physiological mechanism of the body and distributed all over the oral cavity specially in between teeth, above and below the gum margin. Among these organisms group A *b*-haemolytic streptococcus, streptococcus viridans, candida or aspergillus are very much opportunistic and precipitate into above types of heart diseases.

The oro-dental surgeons may develop this opportunity. If patient's oral hygiene is too poor, s/he may suffer from various types of dental diseases. These micro-organisms enter into the blood stream even on chewing, tooth brushing or at the time of dental treatment procedure like scaling, gum surgery, root canal treatment, tooth extraction, minor and major oral surgery etc. After entering into the blood stream these organisms react with the heart valves and other structures of the heart, progressively destroy them leading to heart failure.

What to do?

Every dental patient should remind to the oro-dental surgeon that s/he is suffering from these types of heart diseases or underwent heart surgery, as well as the oro-dental surgeon should take history from the patient about these diseases. If theses diseases exist the oro-dental surgeon should give first antibiotic prophylactic coverage to the patient before starting any kind of dental procedure. In case of special risk, the oro-dental surgeon should consult with a cardiologist before giving dental treatment.

Thus an oro-dental surgeon can help a heart diseased patient to live longer.

HEALTH AND SCIENCE BULLE

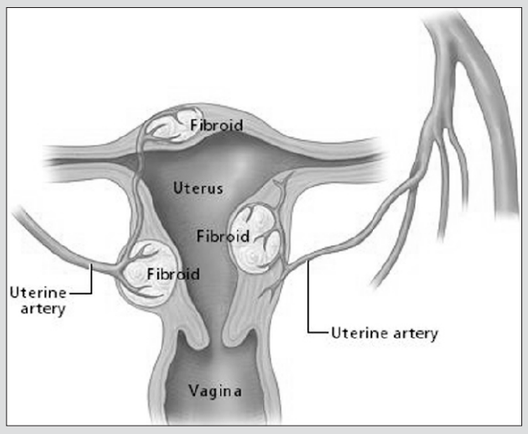
An effectiveness trial of influenza vaccine in Bangladesh

Many *Haemophilus influenzae* type B (Hib) infections can be prevented with vaccination, but the amount of Hib disease in Bangladesh, and so the benefit of introducing the vaccine, is unknown. Conjugate Hib vaccine combined with diphtheria, pertussis and tetanus (DPT) vaccine was administered to half of children in three zones in Dhaka. The other half of children received standard department vaccine. Children who received the Hib vaccine had 50 per cent protection against purulent meningitis and 34 per cent protection against pneumonia. This suggests that a substantial portion of meningitis and pneumonia in Bangladesh is from Hib, and could be prevented with vaccine.

Source: ICDDR,B

Did you know?

Pregnancy possible after fibroid treatment



One of the newest treatments for fibroids (benign tumour in the muscle fibres of the uterus), a procedure called uterine artery embolisation (UAE) that cuts off blood to the benign tumors, is usually considered only suitable for women who have finished having babies. However, women can conceive and carry a child to term following UAE, a Canadian team reported.

Nonetheless, women who become pregnant after UAE should be closely monitored for abnormal development of the placenta, the group advises.

"UAE is now recognised as a solid alternative to hysterectomy (surgical removal of the womb) for women with symptomatic fibroids," Dr. Gaylene Pron from the University of Toronto expressed, but little is known about the effect of UAE on fertility and pregnancy.

In the medical journal Obstetrics and Gynecology, Pron and Ontario-based colleagues report on pregnancies and deliveries among 555 women who underwent UAE as an alternative to hysterectomy as part of a clinical trial.

The average age of the participants was 43 years, but 31 percent were younger than 40.

The investigators reported that 21 of the women conceived after the procedure, and three of the women became pregnant twice.

This shows that "women can definitely get pregnant after UAE. So if they were told that they cannot, that would not be true and it could cause a lot of problems if they are not using any contraception," Pron pointed out.

Twenty-three of the 24 pregnancies were conceived spontaneously. There were four spontaneous abortions, a rate of about 17 percent, which is similar to that of the general population.

There were a total of 18 live births. Fourteen of these were term births and four were preterm births. There were nine vaginal births and nine cesarean deliveries.

Of note, there were three cases of abnormal placental development. This was "unexpected," the investigators said.

Therefore, women who become pregnant after UAE should be followed closely, Pron's group cautions.

Source: Obstetrics and Gynecology, January 2005.

Depression often afflicts heart failure sufferers

About 1 in 5 people suffering from heart failure become clinically depressed, and four factors seem to increase the risk, researchers reported.

"Depressive symptoms in patients with heart failure are strongly associated with a decline in health status and an increase in the risk of hospitalisation and death," Dr. Edward P. Havranek, of Denver Health Medical Center, in Colorado, and colleagues noted.

They examined social, demographic and clinical factors associated with the onset of depression in 245 heart failure patients who were not depressed to begin with.

Fifty-two (21 percent) of the study participants developed symptoms of depression after 1 year.

Compared with those without depressive symptoms, depressed patients were significantly more likely to live alone, to find medical care a severe economic burden, to have a history of alcohol abuse, and to have significantly worse heart failure scores.

Only 8 percent of patients with none of these four risk factors developed significant symptoms of depression. Among those with one risk factor, 15 percent became depressed. For those with two or three risk factors, the rate increased to 36 percent and 69 percent, respectively. None of the patients had all four risk factors.

Source: Journal of the American College of Cardiology