A COMPLETE HEALTH JOURNAL

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Wombs on Rent

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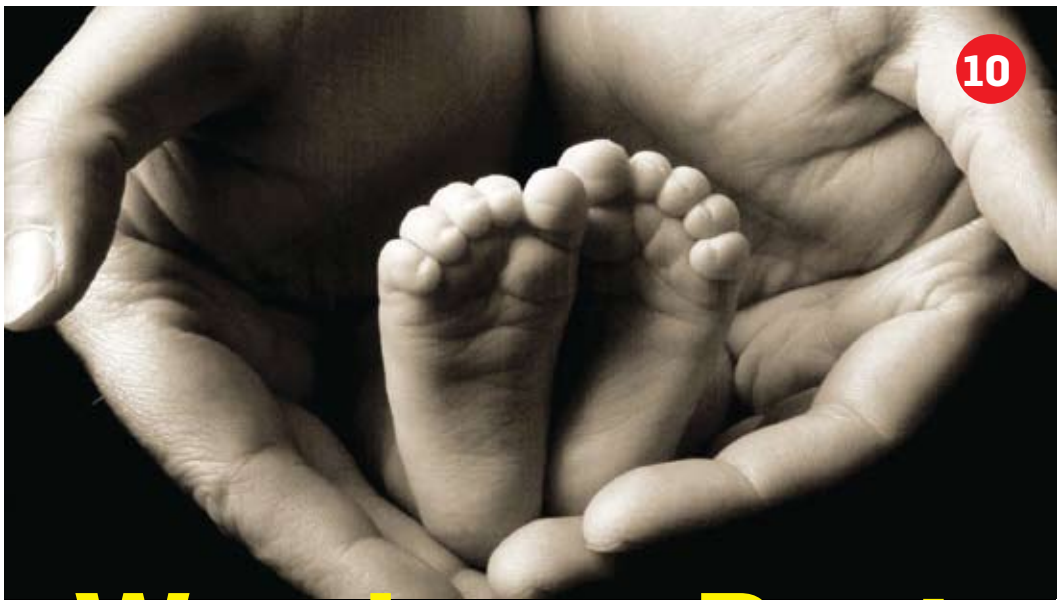
COVER STORY



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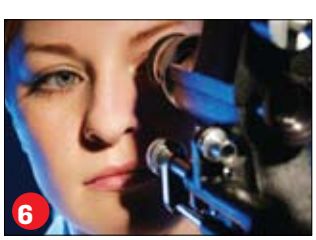
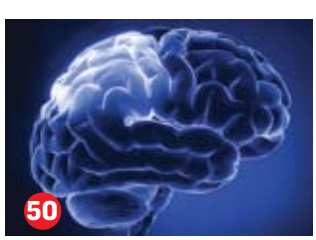


Keep an eye on Uveitis

Trends - Dental Tourism



Ensuring Healthy Brain

Cover Design: Kuldeep singh

Health Care in India
A Long Way to Go

The current state of the health sector in India is far from satisfactory as it is no where near matching global standards. Challenges to human well-beings such as AIDS, resurgence of old infectious diseases and diseases born out of changing life styles, stress and environmental factors have become very widespread these days. The consumption of tobacco, alcohol, drugs and other substance abuse is affecting thousands of lives in the country. The Union Health Ministry needs to embark upon a wide range of measures to tackle such issues. Only then the government may be somewhere near achieving its target of Health for all by 2022. The authorities at various rungs of governance need to ensure that the path-breaking initiatives of Prime Minister Narendra Modi help in bringing healthcare services to the doorsteps of the poor and underprivileged sections of society.

The idea of replicating AIIMS around the country is commendable. But will that solve the problem? The public health system in India is plagued by the shortage of staff, poor infrastructure, lack of equipment and rampant corruption.

Treatment at private hospital, built on highly confessional plots of land allotted by the government, is highly expensive and out of reach for a majority of people. The government needs to bring in and enforce laws so that poor people can get free of cost treatment at these hospitals.

The much-touted immunisation programmes is yet to achieve complete success in preventing the scourge of small pox, diphtheria, Hepatitis B, and many other vaccine preventable diseases. Also, the government needs to adopt a multi-pronged strategy to tackle the problem of malnutrition, ensure the availability of safe drinking water and maintain hygiene, cleanliness and sanitation in villages, towns and cities.

Efforts also need to be made to introduce quality health education in medical institutions. Also, the authorities will do well to take a call on the idea of integration of the best of all systems, including Ayurveda, Siddha, Yoga, Naturopathy, Homeopathy etc, in the medical curriculum. Moreover, medical profession in India is gradually becoming bereft of compassion. There is a crying need to prevent the crass commercialisation of this noble profession.

India's evolving social structure has throughout history allowed extremes of poverty and wealth. The country covers only a little over 2 per cent of the earth's land surface, yet, it accounts for 20 per cent of the world's total population. Because of its scale, strengths and vulnerabilities, the future of India and its ability to safeguard the health and well-being of its citizens raises issues of national importance.

About 40 per cent of deaths reported in India can be largely attributed to infections. Non-communicable conditions such as cardiovascular diseases (heart attacks and associated conditions, including strokes), chronic respiratory disorders and cancers, are also some of the factors responsible for rising mortality figure in India.

India currently spends only 1.2 per cent of its GDP on publicly funded health care. This is considerably less than most other countries. Total Indian health spending is conventionally estimated at a little over 4 per cent of GDP. The public health care system has been strengthened since the start of the 21st century by initiatives such as the National Rural Health Mission (NRHM). But it still suffers from significant limitations in areas such as the free provision of essential medicines to the poorest of the poor.

Last but not the least, the deadly virus Ebola has already claimed thousands of lives in Africa and now even European countries and the US are feeling threatened by it. We have to ensure that we are fully prepared to tackle the scourge called Ebola if it strikes the country.

AMRESH K TIWARY
EDITOR-IN-CHIEF

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Keep an eye on Uveitis

Patients suffering from Uveitis – an inflammatory eye disease – require proper and prompt treatment to rule out damage to eye tissues, and even permanent vision loss **BY DR SHISHIR NARAIN**

If you have symptoms like blurred vision, dark, floating spots in the vision (floaters), eye pain, redness of the eye, sensitivity to light (photophobia), you should immediately get examined by eye specialist. You might have Uveitis, a group of inflammatory diseases that produces swelling and destroys eye tissues. Such disease can slightly reduce vision or lead to severe vision loss.

Uveitis may be caused by problems or diseases occurring in the eye or it can be part of an inflammatory disease affecting other parts of the body, e.g., arthritis. It can happen at all ages but primarily affects people between 20 – 60 years old. Uveitis can last for a short (acute) or a long (chronic) time. Some severe forms of Uveitis re-occur many times and are called recurrent Uveitis.

The term "Uveitis" is used because the disease often affects a part of the eye called the Uvea. Nevertheless, Uveitis is not limited to the Uvea. The inflammation may sometimes also affect the lens, retina, optic nerve, and vitreous, producing reduced vision or blindness.

Although eye specialists do not always know specifically why Uveitis occurs, they do have some clues about some situations and circumstances that make its likelihood greater.

Uveitis is caused by inflammatory responses inside the eye. Inflammation is the body's natural response to tissue damage, germs, or toxins and produces swelling, redness, heat, and destroys tissues as certain white blood cells rush to the affected part of the body to contain or eliminate the threat.

Uveitis may be caused by an attack from the body's own immune system (autoimmunity). Infections like

toxoplasmosis and tuberculosis or rarely tumours occur within the eye or in other parts of the body. Trauma to the eye may also produce inflammation. Some form of sterile inflammation always accompanies any surgical procedure performed on the eye that requires medication to control and heal it quickly.

Uveitis can affect one or both eyes. It will cause symptoms like decreased vision, pain, light sensitivity, and increased floaters. Symptoms may develop rapidly and sometimes cause blurred vision & dark, floating spots in the vision (floaters). Anyone suffering eye pain, severe light sensitivity, and any change in vision should therefore, ideally be examined by eye specialist.

The signs and symptoms of Uveitis vary depending on the type of inflammation. Acute anterior Uveitis may occur in one or both eyes and in adults is characterised by eye pain, blurred vision, sensitivity to light, a small pupil, and redness. Intermediate Uveitis causes blurred vision and floaters. Usually it is not associated with pain. Posterior Uveitis can produce severe vision loss.

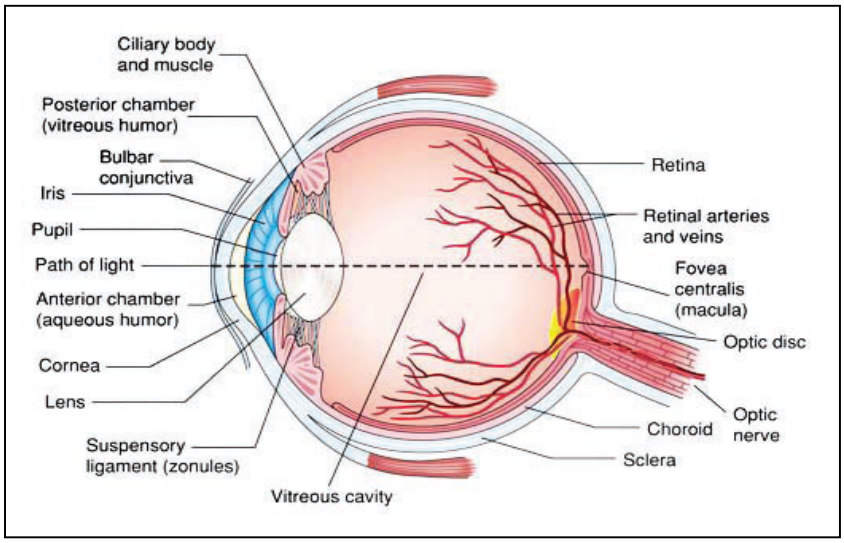
> The term "Uveitis" is used because the disease often affects a part of the eye called the Uvea. Nevertheless, the inflammation may sometimes also affect the lens, retina, optic nerve, and vitreous, producing reduced vision or blindness.

How is Uveitis detected and treated?

The diagnosis of Uveitis includes a thorough examination and the recording of the patient's complete medical history. Laboratory tests may be done to rule out an infection or an autoimmune disorder.

In India it is important to evaluate patients for various infections like TB and Toxoplasmosis. In contrast, in the western world, the same case on clinical suspicion may be subjected to a central nervous system evaluation to rarely determine whether they have multiple sclerosis.

Uveitis treatment primarily aims to eliminate inflammation, alleviate pain, prevent further tissue damage, and restore any loss of vision. Treatments



depend on the type of Uveitis a patient displays. Some, such as using corticosteroid eye drops and injections around the eye or inside the eye, may exclusively target the eye whereas other treatments like immunosuppressive agents taken by mouth, may be used when the disease is occurring in both eyes, particularly in the back of both eyes.

An eye care professional will usually prescribe steroidal anti-inflammatory medication that can be taken as eye drops, swallowed orally as tablets, injected around or into the eye, infused into the blood intravenously, or, released into the eye via a capsule that is surgically implanted inside the eye. Long-term steroid use may produce side effects such as stomach ulcers, osteoporosis (bone thinning), diabetes, cataracts, glaucoma, cardiovascular disease, weight gain, fluid retention, and Cushing's syndrome. Usually other agents are started if it appears that patients need moderate or high doses of oral steroids for more than three months. It is important to understand that one should take them under supervision and not try to self treat the inflammation.

Other immunosuppressive agents that are commonly used include medications such as methotrexate, mycophenolate, azathioprine, and cyclosporine. These treatments require regular blood tests to monitor for possible side effects.

> "Prognosis for a patient with Uveitis is usually good if they receive proper and prompt treatment. If not, there is a risk of cataracts, glaucoma, band keratopathy, retinal edema, and even permanent vision loss."

What research is being done?

New tests are being designed to detect infections. This is important in a country like India where the cause may be infectious. PCR is a novel technique to find the causative organism. Similarly advancement is being made in the field of treatment. Newer drugs and novel ways to treat are emerging, viz, biologic response modifiers (BRM), or biologics, such as, adalimumab, infliximab, daclizumab, abatacept, and rituximab . These drugs target specific elements of the immune system. Some of these drugs may increase the risk of having cancer. They knock off the immunity and simultaneously increase the risk of infections especially the occurrence of activation of latent TB.

What is the treatment for Uveitis?

Prognosis for a patient with Uveitis is usually good if they receive proper and prompt treatment. If not, there is a risk of cataracts, glaucoma, band keratopathy, retinal edema, and even permanent vision loss. If an infectious process is identified, the patient will be prescribed either an antibiotic (bacterial infection) or an antiviral (viral infection). Corticosteroids are usually given in combination as the disease is an allergic response to an infectious agent. This steroid medication may be given as eye drops (prednisolone acetate), tablets or by intraocularly (injection into the eye),

Steroids are effective in treating inflammation. Before giving local corticosteroid drops, it is important rule out corneal ulcers by Florescence Dye test. This is a common mistake, when the patient takes medication from a chemist over the counter without a prior eye examination and the consequences may be disastrous. Mydriatic eye drops like atropine or cyclopentolate dilate the pupil and help the eye to heal. This medication also helps with eye pain. It will also stop the pupil from sticking to the lens. The patient may experience blurred vision and become overly sensitive to light (photophobia).

Immunosuppressant type of medication might be recommended if symptoms are very severe and there is a risk of vision loss, or if the patient has not responded well to other therapies. Usually, they are a substitute for oral steroids when the disease is chronic and tends to recur on tapering the medication.

What are the complications of Uveitis?

With prompt and proper treatment, as well as close monitoring, the chances of complications are significantly reduced. If complications do occur, they may include glaucoma, cataracts, macular edema, scar tissue, retinal detachment (detached retina) and vision loss.

The author is senior eye specialist, Shroff Eye Centre, New Delhi

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Wombs on Rent

Though India is emerging as a major destination for surrogacy because of the availability of surrogate mothers at low cost, there are complex legal and ethical issues involved

AMRESH KUMAR TIWARY

Opting for a surrogate mother by childless couples is still not very common in India. But it is one more option people have for having a baby through new reproductive technologies. Surrogate mother can be defined as a woman who bears a child for another person, often for pay, either through artificial insemination or by carrying until birth another woman's surgically implanted fertilized egg. A surrogacy arrangement or surrogacy agreement is the carrying of a pregnancy for intended parents.

According to Dr Sowjanya Aggarwal, Director, Minimal Invasive Gynaecological Surgery & Reproductive Medicine, Pushpanjali Crosslay Hospital, Vaishali (Ghaziabad), "There are two main types of surrogacy, gestational surrogacy and traditional surrogacy. In gestational surrogacy, the pregnancy results from the transfer of an embryo created by in vitro fertilization (IVF), in a manner that the resulting child is genetically unrelated to the

Dr Sowjanya Aggarwal
Director, Minimal Invasive Gynaecological Surgery & Reproductive Medicine, Pushpanjali Crosslay Hospital, Vaishali

> India is emerging as a major destination for surrogacy. Indian surrogates have been increasingly popular with intended parents in industrialised nations because of the relatively low cost

surrogate. In traditional surrogacy, the surrogate is impregnated naturally or artificially, but the resulting child is genetically related to the surrogate. In the United States, gestational surrogacy is more common than traditional surrogacy and is considered less legally complex. That's because both intended parents have genetic ties to the baby."

As a result, gestational surrogacy has become more common than traditional surrogate. About 750 babies are born each year using gestational surrogacy. Significantly, India is emerging as a major destination for surrogacy. Indian surrogates have been increasingly popular with intended parents in industrialised nations because of the relatively low cost. Indian clinics are at the same time becoming more competitive, not just in the pricing, but in the hiring and retention of Indian females as surrogates. The private clinics charge patients for the complete package, including fertilisation, the surrogate's fee, and delivery of the baby at a hospital. Still even after including the costs of flight tickets, medical procedures and hotels, it comes to roughly a third of the price

Commercial surrogacy laws in Australia

In all states and territories in Australia commercial surrogacy is banned, except the NT (Northern Territory) where it is unregulated. In NSW, Queensland, and the ACT it is illegal to engage in an overseas surrogacy agreement. In NSW, a person who enters into an overseas commercial surrogacy arrangement may be imprisoned for two years under the Surrogacy Act 2010. In the Act, a person may be imprisoned for one year under the Parentage Act 2004. In Queensland a person may be imprisoned for three years under the Surrogacy Act 2010. Although some states have banned overseas surrogacy agreements, the Family Law Council report notes "the number of children conceived as a result of overseas commercial surrogacy arrangements has increaseddramatically in the past several years, despite the existence of laws prohibiting such arrangements, and that, to its knowledge, none of the intended parents in these cases has been prosecuted".

Nonetheless, the bans on overseas surrogacy agreements in some states raise a number of questions for a couple returning with a surrogate child from Thailand or India.

While the federal Immigration Department may grant the child citizenship, the department warns commissioning parents that overseas surrogacy arrangements may not fulfil the requirements for a transfer of legal parentage under state law.

The department says this "may be because the arrangement entered into is commercial in nature and/or the parties may not have received counselling or independent legal advice".

It would seem that a large number of young children are growing up in Australia without any secure legal relationship to the parents who are raising them.

There have been a number of cases in the federal Family Court in recent years which have involved surrogacy arrangements where applications for 'parentage' have failed to meet the requirements of state or territory law.

One case raised in the Family Law Council report involved a Queensland couple, Mr and Ms Dudley, and a Thai surrogate mother, Ms Chedi. In 2011, the Family Court heard an application by the intending father, who was the biological parent of twin children born to Ms Chedi. "The parents were not able to obtain a transfer of parentage order from the relevant state court as the commercial surrogacy arrangement used by the parties was not permitted by Queensland law," the report says.

However, given the children's need for a legal relationship of some kind with the intended parents, Justice Garry Watts made parenting orders giving the applicants parental responsibility for the children during their minority.

compared with going through the procedure in the UK.

"India is increasingly becoming an attractive destination for prospective parents looking at surrogacy. The cost of the entire surrogacy procedure is significantly lower in India. Technology and expertise is easily available and is up to world class standards, coupled with the availability of women offering their wombs as surrogates and lesser legal hassles," adds Dr Sowjanya Aggarwal.

A woman's body goes hormonal change as she is prepared for intrauterine insemination or intra-cervical insemination or, less commonly, intra-cytoplasmic sperm injection or in-vitro fertilisation. She is also put through many other risks. For instance, under the chaotic conditions that prevail in this trade, the testing of the donor for various diseases is mostly absent. Also, there is wide ignorance of the fact that the chances of conception through artificial insemination are at best 35 percent and that too for women under 30.

To rein in the unwieldy industry, the union health minister promises to soon introduce a bill in the Parliament that will regulate commercial surrogacy in India. A survey done in 2011 by SOS Children's village and National Family Health Survey revealed that there was 20 million children without parents and a home in India. Another said that there are just 5,000 adoptions every year in India.

Types of Surrogacy

According to Dr Sadhana Singhal, Senior Gynaecologist, Balaji Action Hospital, New Delhi, Intended parents may seek a surrogacy arrangement when medical issues make pregnancy either impossible or it is considered far too risky for the mother's health. Monetary compensation may or may not be involved in these arrangements. If the surrogate receives compensation beyond reimbursement of medical and other reasonable expenses, the arrangement is considered commercial surrogacy; otherwise, it is referred to as altruistic. The legality and costs of surrogacy vary widely between jurisdictions, sometimes resulting in interstate or international surrogacy arrangements

Dr Sadhna Singhal,
Senior Gynaecologist,
Balaji Action Hospital, New Delhi

In 2008, the Supreme Court of India in the Manji's case (Japanese Baby) has held that commercial surrogacy is permitted in India. That has again increased the international confidence in going in for surrogacy in India

Who uses Surrogates?

Says Dr Sadhana Singhal, "A woman might decide to use a surrogate for several reasons - she may have medical problems with her uterus. She may have had a hysterectomy that removed her uterus. There may be conditions that make pregnancy impossible or medically risky, such as severe disease. Other women choose surrogacy after trying unsuccessfully to get pregnant with a variety of assisted-reproduction techniques (ART), such as IVF,"

Surrogates have also made parenthood an option for people who might not be able to adopt a child. Reasons could include their age, marital status and sexual orientation. For an example when gay men use a traditional surrogate, one of them uses his sperm to fertilise the surrogate's egg through artificial insemination. The surrogate then carries the baby and gives birth. A gay couple might also choose an egg donor, fertilise that donated egg, and have the resulting embryo implanted in a gestational surrogate to carry until birth.

Finding a Surrogate

There are several ways to find a surrogate mother like friends or family. Some people ask a friend or relative to be a surrogate for them. Doing so is somewhat controversial. But given the high cost of surrogacy and the complex legal issues it raises about parental rights, a tried-and-tested family relationship can be simpler to manage. The American Society for Reproductive Medicine accepts certain family ties as acceptable for surrogates. It generally discourages surrogacy, though, if the child would carry the same genes as a child born of incest between first-degree relatives.

A surrogacy agency

Most people turn to a surrogate agency to arrange a gestational surrogate. There are an estimated 100 agencies now operating in the U.S. The agencies act as go-betweens. An agency helps would-be parents find a suitable surrogate, makes arrangements, and collects any fees passed between parents and the surrogate, such as reimbursement for her medical expenses.

Legal aspects of surrogacy

Surrogacy in India is of low cost and the laws are flexible. In 2008, the Supreme Court of India in the Manji's case (Japanese Baby) has held that commercial surrogacy is permitted in India. That has again increased the international confidence in going in for surrogacy in India. But now in 2014, surrogacy has been banned for gays and single parents.

There is an upcoming Assisted Reproductive Technology Bill, aiming to regulate the surrogacy business. However, it is expected to increase the confidence in clinics by sorting out dubious practitioners, and in this way stimulates the practice. As of now, locations where a woman could legally be paid to carry another's child through IVF and embryo transfer include India, Georgia, Russia, Thailand, Ukraine and a few U.S. States.

The legal aspects of surrogacy in any particular jurisdiction tend to hinge on a few central questions like - Are surrogacy agreements enforceable, void or prohibited? Does it make a difference whether the surrogate mother is paid (commercial) or simply reimbursed for expenses? What, if any, difference does it make whether the surrogacy is traditional or gestational? Is there an alternative to post-birth adoption for the recognition of the intended parents as the legal parents, either before or after the birth?

> A surrogacy arrangement should provide for financial support for surrogate child in the event of death of the commissioning couple or individual before delivery of the child, or divorce between the intended parents

Although laws differ widely from one jurisdiction to another, some generalisations are possible. The historical legal assumption has been that the woman giving birth to a child is that child's legal mother, and the only way for another woman to be recognised as the mother is through adoption (usually requiring the birth mother's formal abandonment of parental rights).

Even in jurisdictions that do not recognise surrogacy arrangements, if the genetic parents and the birth mother proceed without any intervention from the government and have no changes of heart along the way, they are likely be able to achieve the effects of surrogacy by having the surrogate mother give birth and then give the child up for private adoption to the intended parents.

If the jurisdiction specifically prohibits surrogacy, however, and finds out about the arrangement, there may be financial and legal consequences for the parties involved. One jurisdiction prevented the genetic mother's adoption of the child even though that left the child with no legal mother.

Some jurisdictions specifically prohibit only commercial and not altruistic surrogacy. Even jurisdictions that do not prohibit surrogacy may rule that surrogacy contracts (commercial, altruistic, or both) are void. If the contract is either prohibited or void, then there is no recourse if party to the agreement has a change of heart: If a surrogate changes her mind and decides to keep the child, the intended mother has no claim to the child even if it is her genetic offspring, and the couple cannot get back any money they may have paid or reimbursed to the surrogate; if the intended parents change their mind and do not want the child after all, the surrogate cannot get any reimbursement for expenses, or any promised payment, and she will be left with legal custody of the child.

Jurisdictions that permit surrogacy sometimes offer a way for the intended mother, especially if she is also the genetic mother, to be recognised as the legal mother without going through the process of abandonment and adoption.

Often this is via a birth order in which a court rules on the legal parentage of a child. These orders usually require the consent of all parties involved, sometimes including even the husband of a married gestational surrogate. Most jurisdictions provide for only a post-birth order, often out of an unwillingness to force the surrogate mother to give up parental rights if she changes her mind after the birth.

A few jurisdictions do provide for pre-birth orders, generally in only those cases when the surrogate mother is not genetically related to the expected child. Some jurisdictions impose other requirements in order to issue birth orders, for example, that the intended parents be heterosexual and married to one another. Jurisdictions that provide for pre-birth orders are also more likely to provide for some kind of enforcement of surrogacy contracts.

Ethical issues

Ethical issues that have been raised with regards to surrogacy include - to what extent should society be concerned about exploitation,

commodification, and/or coercion when women are paid to be pregnant and deliver babies, especially in cases where there are large wealth and power differentials between intended parents and surrogates? To what extent is it right for society to permit women to make contracts about the use of their bodies? To what extent is it a woman's human right to make contracts regarding the use of her body? Is contracting for surrogacy more like contracting for employment/ labour, or more like contracting for prostitution, or more like contracting for slavery? Which, if any, of these kinds of contracts should be enforceable? Should the state be able to force a woman to carry out "specific performance" of her contract if that requires her to give birth to an embryo she would like to abort, or to abort an embryo she would like to carry to term? What does motherhood mean? What is the relationship between genetic motherhood, gestational motherhood, and social motherhood? Is it possible to socially or legally conceive of multiple modes of motherhood and/or the recognition of multiple mothers? Should a child born via surrogacy have the right to know the identity of any/all of the people involved in that child's conception and delivery?

Indian Council for Medical Research guidelines

The Indian Council for Medical Research has given Guidelines in the year 2005 regulating Assisted Reproductive Technology procedures. The Law Commission of India submitted the 228th report on Assisted Reproductive Technology procedures discussing the importance and need for surrogacy, and also the steps taken to control surrogacy arrangements. The following observations had been made by the Law Commission:

Surrogacy arrangement will continue to be governed by contract amongst parties, which will contain all the terms requiring consent of surrogate mother to bear child, agreement of her husband and other family members for the same, medical procedures of artificial insemination, reimbursement of all reasonable expenses for carrying child to full term, willingness to hand over the child born to the commissioning parent(s), etc. But such an arrangement should not be for commercial purposes.

A surrogacy arrangement should provide for financial support for surrogate child in the event of death of the commissioning couple or individual before delivery of the child, or divorce between the intended parents and subsequent willingness of none to take delivery of the child.

A surrogacy contract should necessarily take care of life insurance cover for surrogate mother. One of the intended parents should be a donor as well, because the bond of love and affection with a child primarily emanates from biological relationship. Also, the chances of various kinds of child-abuse, which have been noticed in cases of adoptions, will be reduced. In case the intended parent is single, he or she should be a donor to be able to have a surrogate child. Otherwise, adoption is the way to have a child which is resorted to if biological (natural) parents and adoptive parents are different.

Legislation itself should recognise a surrogate child to be the legitimate child of the commissioning parent (s) without there being any need for adoption or even declaration of guardian. The birth certificate of the surrogate child should contain the name (s) of the commissioning parent (s) only. Right to privacy of donor as well as surrogate mother should be protected. Sex-selective surrogacy should be prohibited. Cases of abortions should be governed by the Medical Termination of Pregnancy Act 1971 only. Indian government regulations about Assisted Reproductive Technology (ART)/ surrogacy and U.S. government regulations about the citizenship of children born via ART/ surrogacy to U.S. citizen parent(s) continue to evolve.

Commercial surrogacy

Commercial surrogacy in India is legal. The availability of medical infrastructure and potential surrogates, combined with international demand, has fuelled the growth of the industry. Surrogate mothers receive medical, nutritional and overall health care through surrogacy agreements.

The economic scale of surrogacy in India is unknown, but a study backed by the United Nations in July 2012 estimated the business at more than $400 million a year, with over 3,000 fertility clinics across India.

Hypertension
Tackling a Silent Killer

If you don't take proper care, hypertension may lead to serious health issues like heart attack, brain stroke and damage to kidneys **BY DR RAJAT ARORA**

If you do not check your blood pressure periodically, it is difficult to figure out if your BP falls within the healthy range. High blood pressure or hypertension could be dangerous as it is rightly dubbed as a "silent killer" as it stalks you silently without your knowledge.

Though it may sound shocking, this slain stalker could conspire a silent plot and you would have no inkling about it until the situation goes out-of-hand. Hypertension results when the blood pumped by the heart exerts a lot of pressure on the arteries, thus leading to serious health issues. And what makes it worse is when the arteries are stiff or narrow due to age.

Excess pressure on any pipeline always poses the risk of bursting. So it is in the case of heart, there is a huge risk of the "pipes" bursting. Damage to the arteries that supply the heart muscle with blood can eventually contribute to heart attack. Similarly, damage to the arteries that supply the brain with blood can contribute to stroke and damage to the arteries that provide the kidneys with blood can lead to kidney diseases.

Medical studies have proven that high blood pressure can also give result in brain fog – trouble learning, remembering and understanding. And increasing evidence is showing a link between blood vessel disease and dementia or Alzheimer's disease. Most often the symptoms of hypertension are visible, hence it's synonymous to silent killer, but if the BP climbs to extreme heights, then one may experience severe headache, chest pain, shortness of breath, bleeding in the nose

and changes in the vision.

What's more, both men and women with high BP are likely to have sexual dysfunction due to compromised blood flow into the sexual organs. The patient is also at greater risk of bone loss and sleep apnea, a sleep disorder characterised by pauses in breathing or instances of shallow or infrequent breathing during sleep. These problems may not outright kill, but may affect day-to-day functions. . As it has now become imperative to keep such problems at bay, the Harvard Health Publications has observed that cutting salt by just 15 percent lowers deaths from heart attacks and stroke by 40 per cent or more.

> Both men and women with high BP are likely to have sexual dysfunction due to compromised blood flow into the sexual organs. The patient is also at greater risk of bone loss and sleep apnea, a sleep disorder

Besides monitoring of BP periodically, it is mandatory to bring about some lifestyle changes. Blood Pressure tends to fluctuate on conditions of stress or soon after you've just stubbed a cigarette, it is important to relax; ground the feet; support the arm fully and stay calm without clouding the mind with unwanted thoughts before checking BP. If the reading is 120/80 or below then there is nothing much to worry about but if it's 140/90 or higher, or 130/80 if you have diabetes, it's important to talk to doctor about treatment options.

Exercise, weight loss, salt reduction, quitting smoking, and stress reduction can help lower blood pressure. Your physician may prescribe medications that could work in various ways to reduce the pressure of blood against artery walls and thereby the workload of the heart. Obesity multiplies the risk of developing hypertension about fourfold in men and threefold in women. It is well documented that levels of overweight and obesity have increased manifolds over the last decade in India.

Hypertension has become the key priority for prevention, diagnosis and control. It has also emerged as one of the important challenges faced by public health today. Hence there is a dire need to create awareness on hypertension, observe 'silent killer awareness day' and encourage people to 'know their number' (blood pressure level). Relevant lifestyle advices could also be part of such awareness events.

(The author is Interventional Cardiologist at Yashoda Superspeciality Hospital, Ghaziabad)

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Handle With Care

Liver transplant in children is technically more difficult and requires much more expertise than in adults, as the blood vessels and bile duct in a child are very small. The anaesthetic care in children is also different, necessitating the services of an anaesthetist experienced in paediatric care

BY DR NEELAM MOHAN

The common conditions necessary for liver transplant in children and adolescents are acute liver failure, chronic liver failure and metabolic liver disease. It is important to ensure that specific hepatic complications are appropriately managed while the patient waits for transplant. These include portal hypertension, oesophageal varices, ascites, hypoproteinemia etc.

Liver is the largest organ of body. It weighs about 150gm in new born to 1.5kg in adults. It is located in upper abdomen on right side. It has 2 lobes (right and left) and produces bile which flows into small intestine (duodenum) via bile duct. The main functions of liver are to make and store fuel like glycogen and fat soluble vitamins, clear blood, make bile which travels from liver into intestine and is required for digestion and absorption of fat, metabolism, excretion of drugs and toxin and production of important proteins required for clotting of blood.

Usually, in a child left lobe or left lateral lobe is used, however, in older children and adolescents, right lobe of the donor may also be used. The minimum graft should be 0.8-1 percent of the body weight of the child. In a small baby even left lateral segment may be too large for the small size vessels that the patient has. Therefore, after removing a part of the liver (usually left lateral) a bench surgery, that's surgery on the table, is performed to reduce the weight and size and make it appropriate to the weight and needs of the child. This is called reduced graft. Besides the patient evaluation for liver transplantation as mentioned in the previous section, the pre transplant evaluation in a paediatric liver transplant includes the following issues:

It has been demonstrated in several studies that nutritional status at liver transplant is an important prognostic factor in survival i.e. better outcome is seen in patients with good nutritional status. The patient needs to be on a high calorie diet (150- 200 percent calories good protein intake) with two times the RDA of multi vitamins and in patients with cholestasis supplementation with fat soluble vitamins like vitamin A, D, E, K is done. In patients with cholestasis, MCT oil as in coconut oil is used for cooking. If a child is not able to feed well orally then tube feed supplementation is done, which could be for overnight feeds or during the day as per the need.

> Children who survive liver transplant will usually achieve a normal lifestyle despite the necessity for continuous monitoring of immunosuppressive drug levels

Efforts are made especially in small babies to improve their nutrition and weight, however, occasionally despite good calorie intake one is not able to achieve improvement in weight, in that scenario the doctor may decide to proceed for liver transplant even at a low weight. Thus, the decision of timing of liver transplantation will need to be indidualised to patient.

Liver transplant is children is technically more difficult and requires much more expertise as the blood vessels and bile duct in a child and especially whose weight is < 10 kg are very small. Also majority of paediatric patients being post Kasai (post biliary atresia surgery) , chances of adhesions are much more inside which make it all the more difficult to operate for surgeons.

The anaesthetic care in children is also different as the lung volumes are less and chances of intraop bleeds due to adhesions inside are much more which need to manage and at the same time volume overload has to be avoided. There is relatively a narrow margin as compared to adults. Anaesthetists experienced in paediatric care are ideal.

Following liver transplant, the patient requires immunosuppression usually for life long (according to the present consensus). There are 3 drugs, tacrolimus, mycophenolate mofetil and steroids. Steroids are discontinued first followed by mycophenolate mofetil. Thereafter, patient is on 1 immunosuppressive drug, usually tacrolimus, which needs to be taken twice a day.

The caretaker must ensure that regular blood tests are done to monitor the liver functions, kidney functions and immunosuppressive drug levels as advised by the doctor. After the initial couple of years the frequency of testing may be reduced to once in a quarter of a year.

> One of the growing conditions of liver disease in children is fatty liver disease which is mostly seen in overweight and obese children

Children who survive liver transplant will usually achieve a normal lifestyle despite the necessity for continuous monitoring of immunosuppressive drug levels. They take part in normal school and sports activities etc.

Most children are able to resume studies after three months of transplant and sports after 3-6 months of transplant. Most studies from large paediatric liver transplant centres show a patient survival of 90 percent at 1 year and 85 percent at or beyond 10 years. Usually, there are no significant issues related to mortality after this. Patients usually lead a normal life. There are patients who have been operated as children / adolescents and have also produced children. Patients take part in sports, normal activities and there are examples of children who've climbed mountain peaks.

How does liver fail in a child?

Most people wonder how liver gets damaged in childhood and why one needs liver transplantation. In children – mostly liver gets damaged due to defects either in its structure or function due to absence of an enzyme/chemical since birth. These conditions can damage the liver even of a newborn or child necessitating the need of a liver transplant. The common defect in structure is biliary atresia where the bile duct which supplies is bile into the intestine is not formed since birth. The other common conditions where the enzymes are defective are called metabolic liver diseases such as Wilson diseases where copper enzymes is defective, Tyrosinemia where digestion of protein is defective, glycogen storage disorder, galactosemia, here there are defects in the digestion of carbohydrates. Besides that liver can also be affected due to infection like viral hepatitis A, E, B, C, typhoid, dengue etc. The 1:1000 cases of viral hepatitis A and E can get serious and go into liver failure. Occasionally, autoimmune conditions where the body develops antibody against its own liver cells result in liver damage in a child. In addition, one of the growing conditions of liver disease in children is fatty liver disease which is mostly seen in overweight and obese children.

With the increasing incidence of unhealthy eating habits in children (such as fried food, fast food use of cokes, chips etc, associated with decreased activity resulting from over use of TV, mobiles, video games and hardly any outdoor activities, etc), children are getting overweight and fat. This results in the fatty liver disease.

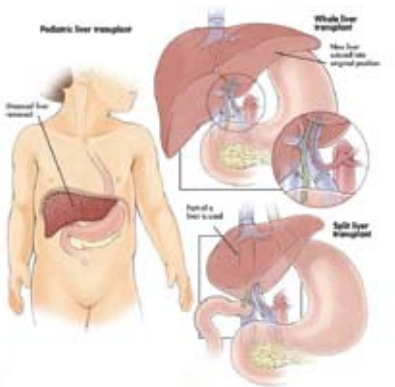
In addition, sometimes the medications can damage the liver such as anti tuberculosis , antiepileptic drugs etc. Rarely, liver in a child can also be affected by tumour. In adults, the common causes of liver damage are alcohol, infections like hepatitis B, C and tumours. These reasons are not seen in children.

Symptoms of acute liver failure are lethargy, irritability, abnormal behaviour, reversibility of sleep rhythm, excessive sleep, breathing, hyperventilation, altered sensorium (coma in advanced cases), jaundice, bluish spots, decreased urine output etc. The most important blood test depicting liver failure in children is prolonged prothrom-

bin time/INR. When acute liver failure is suspected, the patient should be managed in a tertiary care health centre. Aggressive management could salvage 50-60 percent with medical therapy and rest would need liver transplantation; if untreated, this has a very high death rate.

What is liver transplantation ?

Liver Transplantation is the replacement of diseased liver with a healthy liver from a deceased donor or a living donor. Liver transplantation nowadays is a well accepted treatment option for end-stage liver disease and acute liver failure with a 95 percent success rate. Liver transplantation is potentially applicable to any acute or chronic condition resulting in irreversible liver dysfunction, provided that the recipient does not have other conditions that will preclude a successful transplant. Be-



sides this, it's indicated for liver tumours and certain inborn errors of metabolism in children.

Is it safe to donate liver ?

A healthy adult has nearly 70 percent extra liver, it is the only organ which regenerates. There are two lobes of the liver, therefore once can donate a part of his/her liver and the liver would regenerate >50 percent in a month and >80 percent within 3 months of donation.

Prevention

- Clear water and food (can avoid infections such as typhoid, hepatitis A)
- Hepatitis B and A vaccine
- Healthy eating habits (avoid junk food such as chips, samosas, patties, burger, cokes, too much biscuit etc which can give rise to obesity)
- Regular use of vegetable and fruits
- Exercise /sports
- Avoid contaminated needles/ syringe & blood transfusion.

(The author is a leading Paediatric Liver Specialist, Gastroenterologist and Liver Transplant Physician, Medanta Hospital, Gurgaon)

Let Nothing Obstruct your Sleep!

Untreated sleep apnea may increase the risk of high blood pressure, heart attack and even heart failure

BY TEAM DOUBLE HELICAL

Do you wake up tired and not feeling fresh? Do you snore? Do you have high blood pressure? Do you have nocturia (passing urine during sleep)? If you have any of these symptoms, you may have Sleep Apnea.

Sleep Apnea is a common disorder in which you have one or more pauses in breathing or shallow breaths while you sleep. Breathing pauses can last from a few seconds to minutes. They may occur 30 times or more an hour. Typically, normal breathing then starts again, sometimes with a loud snort or choking sound.

Vipul Mishra, Senior Consultant Pulmonology and Intensive Care, Pushpanjali Crosslay Hospital, Vaishali (Ghaziabad), said, "Sleep apnea is often diagnosed with an overnight sleep test called a polysomnogram, or sleep study. There are three forms of sleep apnea like Central Sleep Aprea (CSA), Obstructive Sleep Apnea (OSA), and complex or mixed sleep apnea. In CSA,

breathing is interrupted by a lack of respiratory effort, in OSA, breathing is interrupted by a physical block to airflow despite respiratory effort, and snoring is common."

Sleep Apnea – A Serious Health Hazard

Regardless of type, an individual with sleep apnea is rarely aware of having difficulty breathing, even upon awakening. Sleep apnea is recognised as a problem by others witnessing the individual during episodes or is suspected because of its effects on the body.

According to Dr Vipul Mishra, "The most common type of sleep apnea is OSA. In this condition, the airway collapses or becomes blocked during sleep. This causes shallow breathing or breathing pauses. When you try to breathe, any air that squeezes past the blockage can cause loud snoring. OSA is more common in people who are overweight, but it can affect anyone. For example, small children who have enlarged tonsil tissues in their throats may have OSA."

OSA can increase the risk of high blood pressure, heart attack, heart failure, stroke, obesity,diabetes, or worsen the chances of having work-related stress or driving accidents. Sleep apnea is a chronic condition that requires long-term management. Lifestyle changes, surgery, and breathing devices can successfully treat sleep apnea in many people.

According to the National Institutes of Health, 12 million Americans have OSA. In metro cities like Delhi, Mumbai and other sub urban cities, the incidence of OSA is increasing. But people either do not report the condition or do not know that they have sleep apnea.

Sleep apnea usually is a chronic condition that disrupts your sleep. When your breathing pauses or becomes shallow, you'll often move out of deep sleep and into light sleep. As a result, the quality of your sleep becomes poor, which makes you tired during the day. These days this is a leading cause of excessive daytime sleepiness.

Says Dr Mukesh Aggarwal, senior physician Yashoda, Ghaziabad Superspeciality Hospital, "Sleep apnea is classified as a dyssomnia, meaning behaviour or psychological events occur during sleep. When breathing is paused, carbon dioxide builds up the bloodstream. The brain is signalled to wake the person sleeping and breathe in air. Breathing normally will restore oxygen levels and the person will fall asleep again."

Dr Vipul Mishra
Senior Consultant Pulmonology and Intensive Care, Pushpanjali Crosslay Hospital

> Sleep apnea is a chronic condition that requires long-term management. Lifestyle changes, surgery, and breathing devices can successfully treat sleep apnea in many people

The OSA may increase risk for driving accidents and work-related accidents. If this is not treated, one has an increased risk of other health problems such as diabetes. Even death could occur from untreated obstructive sleep apnea due to lack of oxygen to the body. Moreover, patients are examined using "standard test batteries" in order to further identify parts of the brain that are affected by sleep apnea. Tests have shown that certain parts of the brain cause different effects. The executive functioning part of the brain affects the way the patient plans and initiates tasks. Second, the part of the brain that deals with attention causes difficulty in paying attention, working effectively and processing information when in a waking state. Thirdly, the part of the brain that uses memory and learning is also affected.

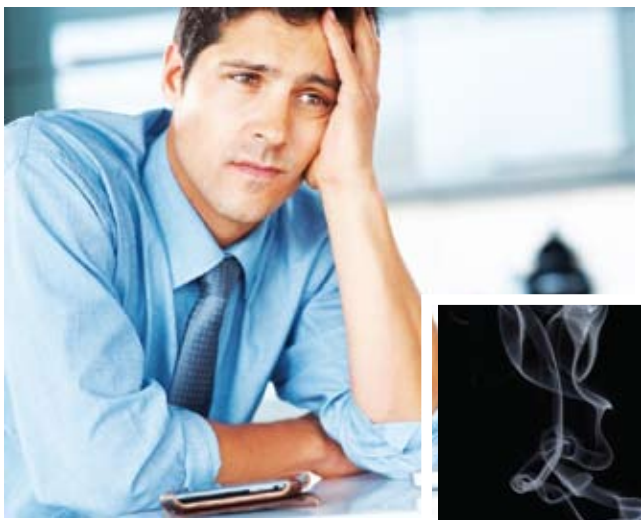
Due to the disruption in daytime cognitive state, behavioural effects are also present. This includes moodiness, belligerence, as well as a decrease in attentiveness and drive. Another symptom of sleep apnea is waking up in sleep paralysis. In severe cases, the fear of sleep due to sleep paralysis can lead to insomnia. These effects become very hard to deal with, thus the development of depression may transpire. There is also evidence that the risk of diabetes among those with moderate or severe sleep apnea is higher.

Observes Dr Mukesh Aggarwal, "Symptoms may be present for years (or even decades) without identification, during which time the sufferer may become conditioned to the daytime sleepiness and fatigue associated with significant levels of sleep disturbance. Sleep apnea affects not only adults but some children as well.Patients complain about excessive daytime sleepiness and impaired alertness. In other words, common effects of sleep apnea include daytime fatigue, a slower reaction time, and vision problems."

There is also increasing evidence that sleep apnea may also lead to liver function impairment, particularly fatty liver diseases. Finally, because there are many factors that could lead to some of the effects previously listed, some patients are not aware that they suffer from sleep apnea and are either misdiagnosed, or just ignore the symptoms altogether.

Sleep Apnea– Treatment

Sleep apnea is a serious sleep disorder that needs to be treated. A board certified sleep physician can help you select a treatment plan that is right for you. It can be treated by different ways like CPAP (Continuous Positive Airway Pressure)Oral Appliance Therapy, Oral



Appliance Therapy, Weight Management and Surgery. CPAP is a machine that uses a steady stream of air to gently keep your airway open throughout the night so you are able to breathe. You sleep with a mask with a hose that is attached to a machine kept at the bedside. Masks and machines may vary depending on your treatment and comfort needs.

CPAP is the frontline treatment for OSA and is recommended for all cases. An oral appliance is a device that fits in your mouth over your teeth while you sleep. It may resemble a sports mouth guard or an orthodontic retainer. The device prevents the airway from collapsing by holding the tongue in position or by sliding your jaw forward so that you can breathe when you are asleep.

Some patients prefer sleeping with an oral appliance to a CPAP machine. A dentist trained in dental sleep medicine can fit you with an oral appliance after you are diagnosed with sleep apnea. Oral appliance therapy is recommended for patients with mild to moderate apnea who cannot tolerate CPAP.

Surgical therapies are not as effective in treating sleep apnea as CPAP and oral appliances. There are a variety of surgical options you can elect to have if CPAP or oral appliance therapy does not work for you. The most common options reduce or eliminate the extra tissue in your throat that collapses and

> Sleep apnea usually is a chronic condition that disrupts your sleep. When your breathing pauses or becomes shallow, you'll often move out of deep sleep and into light sleep

blocks your airway during sleep. More complex procedures can adjust your bone structures including the jaw, nose and facial bones. Weight loss surgery may also be an option. Talk to your sleep medicine physician about what surgery is right for you.

In some cases weight loss can help improve or eliminate your sleep apnea symptoms if you are overweight or obese. Overweight people often have thick necks with extra tissue in the throat that may block the airway. There is no guarantee that losing weight will eliminate your sleep apnea, though it may help. This approach is unlikely to make a difference in patients with a narrow nasal passage or airway.

Positional therapy is a behavioural strategy to treat positional sleep apnea. Some people have sleep apnea primarily when sleeping on their back. This is called the "supine" position. Their breathing returns to normal when they sleep on their side. Positional therapy may involve wearing a special device around your waist or back. It keeps you sleeping in the side position. Another option is a small device that uses "vibro-tactile feedback" technology. Worn on the back of the neck, it gently vibrates when you start to sleep on your back. Without waking you up, the vibration alerts your body to change positions. Positional therapy can be used alone or together with another sleep apnea treatment.

There are a variety of lifestyle changes that you can make to help you reduce your snoring and improve your sleep apnea symptoms. Behavioural changes such as quitting smoking or not drinking alcohol may help in this regard. Alcohol relaxes your throat muscles which can cause you to snore or for your airway to collapse. If you have allergies, taking a decongestant before you go to bed may help improve airflow through your nose.

Cleanliness drive in hospital to keep your health fit

The Swachh Bharat Mission was launched by Prime Minister Narendra Modi and before Diwali, Pushpanjali Crosslay Hospital took the lead in NCR to launch the cleanliness drive in and around the hospital.

The cleanliness drive was organized by Pushpanjali Crosslay, Vaishali and supported by Sun Valley School, Vaishali Fire Station and Trade Associations. The aim of this program was not only to keep the area surrounding Hospital clean, but ensure that the message of cleanliness is spread amongst the society. The exercise began

> This mission was led by the Chairman and Managing Director of Pushpanjali Crosslay Hospital Dr. Vinay Aggarwal, Director Dr. Gaurav Aggarwal, along with the team of 80 Doctors

from Vaishali Sector-1 traffic red light and continued till Pushpanjali Crosslay Hospital, and including the back lane of the Hospital by cleaning and collecting the roadside garbage and dumping them onto the trucks which disposed them in the dumping area.

This mission was led by the Chairman and Managing Director of Pushpanjali Crosslay Hospital Dr. Vinay Aggarwal, Director Dr. Gaurav Aggarwal, along with the team of 80 doctors, hospital staff led by Dhiraj Sharma, Sanjeev Sharma, Dr. Aman Khera, Dr. Abhinav Verma, Dr. Ruby Bansal, Rama Chettri and Dr. Parmanand.

Apart from Pushpanjali Crosslay Hospital's Management and staff, total 100 students and teachers from Sun Valley School, 25 Fire Brigade Officials led by Assistant Fire Officer Shri Akshay Kumar Sharma actively participated in the cleaning drive.

Ensuring Clear Vision

Micro-incision Cataract Surgery has been demonstrated to be minimally invasive surgery, providing enhanced post-operative outcomes in the treatment of cataract. **BY AMRESH KUMAR TIWARY**

If you are experiencing cloudy, blurry, fuzzy, foggy or filmy vision, please don't delay to contact your eye specialist. Noticeable cloudiness in the pupil, increased glare from lights, e.g., from headlights when driving at night, a decrease in distance vision but an improvement in near vision, double vision (diplopia), frequent changes in eye prescriptions, impairment of colour vision and poor vision in sunlight are the symptoms of cataract.

The symptoms of early cataracts may be improved with new prescription glasses, better lighting or effective sunglasses. Once cataracts progresses, surgery is the only effective treatment.

According to Dr L D Sota, Senior Eye SpecialistandFormerDirector,Professor and Head, Guru Nanak Eye Centre, New Delhi, "A cataract is a clouding of the lens in the eye that affects vision. Most cataracts are related to ageing. These days, cataracts are very common; they may also occur at the age of 35 in either or both eyes. If they develop in both eyes, one will be more severely affected than the other. A normally clear lens allows light to pass through to the back of the eye, so that the patient can see well-defined images. If a part of the lens becomes opaque, light does not pass through easily and the patient's vision becomes blurred."

The researchers suspect that there are several causes of cataract, such as smoking and diabetes, while smoking and alcohol have also been linked to the development of cataracts and other factors currently being investigated include diets that are high in fat and the long-term use of vitamin supplements.

Thanks to technological advances during the last 50 years, cataract surgery is now a highly successful procedure with a remarkably low rate of complications. Although the primary goal of cataract extraction is to clear the visual axis of opacity and restore visual function, the correction of refractive errors has been an additional benefit to patients who wish to no longer depend on spectacles for distance and near vision.

Dr L D Sota, Senior Eye Specialist, says, "The cataract surgery has experienced a large transformation during the last decades. This transformation has been in response to increased refractive requirements of patients and ophthalmic surgeons. New technology has allowed for unlimited development of the surgery technique and surgery tools. Refractive results of the surgery and new intraocular lens (IOL) technology has gained popularity among patients wanting to remove opaque lens. The need to improve surgical outcomes has led to further development of the surgery technique".

The driving force of cataract surgery development was incision size reduction. The trend to diminish incision size contributed to the development of the phacoemulsification machine, laser and surgical tools. This evolution of eye surgery has led to development of bimanual cataract surgery with incision size lower than 1.8 mm, separated irrigation and aspiration approved-to-use fluidics as a powerful tool and in this way use of less phaco energy during each surgery. The reduction of the energy allows diminishing the aggressiveness of the cataract surgery and improved surgical outcomes.

Micro-incision Cataract Surgery (MICS) is an approach to cataract surgery through incision less than 1.8 mm with the purpose of reducing surgical invasiveness, improving at the same time surgical outcomes.

The main advantages of MICS are the control and avoidance of surgically induced corneal astigmatism and the decrease of postoperative corneal aberrations. MICS has been demonstrated to be minimally traumatic surgery, providing better postoperative outcomes than standard small incision phacoemulsification. High degree of surgical innovation, use of advanced surgical platforms with pressurized fluidic control and new surgical instrumentation, allow doing very sophisticated cataract surgery. MICS favours the use of fluidics. Bimanuality provides opportunity to do manipulation in anterior chamber area easily and much more comfortably than with standard coaxial technique".

Agrees Dr Rajesh Ranjan, senior eye surgeon, Vasan Eye Hospital, Preet Vihar, Delhi, "Micro incision cataract surgery (MICS) is an approach to cataract surgery through incision less than 1.8 mm with the purpose of reducing surgical invasiveness, improving at the

"The risk of cataract increases as you get older"

In an interview with Double Helical, **Dr Rajesh Ranjan**, senior eye surgeon, Vasan Eye Hospital, Preet Vihar, Delhi, shares his insight on formation and treatment of cataracts. Excerpts ...

How do cataracts affect vision?

Age-related cataracts can affect your vision in two ways like clumps of protein reduce the sharpness of the image reaching the retina. The lens consists mostly of water and protein. When the protein clumps up, it clouds the lens and reduces the light that reaches the retina. The clouding may become severe enough to cause blurred vision. Most age-related cataracts develop from protein clumpings.

When a cataract is small, the cloudiness affects only a small part of the lens. You may not notice any changes in your vision. Cataracts tend to "grow" slowly, so vision gets worse gradually. Over time, the cloudy area in the lens may get larger, and the cataract may increase in size. Seeing may become more difficult. Your vision may get duller or blurrier.

When is one most likely to have a cataract?

The term "age-related" is a little misleading. You don't have to be a senior citizen to get this type of cataract. In fact, people can have an age-related cataract in their 40s and 50s. But during middle age, most cataracts are small and do not affect vision. It is after age 60 that most cataracts steal vision.

Who is at risk for cataract?

The risk of cataract increases as you get older. Other risk factors for cataract include certain diseases such as diabetes, personal behavior such as smoking and alcohol use and the environment such as prolonged exposure to sunlight.

What can one do to protect one's vision?

Wearing sunglasses and a hat with a brim to block ultraviolet sunlight may help to delay cataract. You should also avoid smoking. Researchers also believe good nutrition can help reduce the risk of age-related cataract. They recommend eating green leafy vegetables, fruit, and other foods with antioxidants.

If you are age 60 or older, you should have a comprehensive dilated eye exam at least once every two years. In addition to cataract, your eye care professional can check for signs of age-related macular degeneration, glaucoma, and other vision disorders. Early treatment for many eye diseases may save your sight.

What are the symptoms of a

same time surgical outcomes."

MICS has been demonstrated to be minimally traumatic surgery, providing better postoperative outcomes than standard small incision phacoemulsification. High degree of surgical innovation, use of advanced phacoemulsification surgical platforms with pressurised fluidic control and new surgical instrumentation, allow doing very sophisticated cataract surgery.

Today, surgery is performed through 1 mm incision. The use of the modern MICS intraocular lens (IOL) requires incisions of 1.8 mm. The increased availability of MICS IOLs allows to select the best IOL as per the demand of the patient. Long-term stability of the MICS outcomes and wide range of surgical capacity makes MICS the most modern and adequate approach to

cataract?
The most common symptoms of a cataract are cloudy or blurred vision. Colours seem faded. Glare, headlights, lamps, or sunlight may appear too bright. A halo may appear around lights. Poor night vision, double vision or multiple images in one eye, frequent prescription changes in your eyeglasses or contact lenses, can be a sign of other eye problems. If you have any of these symptoms, please contact your eye care professional.

How is a cataract detected?
Cataract is detected through a comprehensive eye exam that includes visual acuity test. This eye chart test measures how well you see at various distances. Dilated eye exam and drops are placed in your eyes to widen, or dilate, the pupils. Your eye care professional uses a special magnifying lens to examine your retina and optic nerve for signs of damage and other eye problems. After the exam, your close-up vision may remain blurred for several hours. Tonometry, an instrument measures the pressure inside the eye. Numbing drops may be applied to your eye for this test.

How is a cataract treated?
The symptoms of early cataract may be improved with new eyeglasses, brighter lighting, anti-glare sunglasses, or magnifying lenses. If these measures do not help, surgery is the only effective treatment. Surgery involves removing the cloudy lens and replacing it with an artificial lens.

A cataract needs to be removed only when vision loss interferes with your everyday activities, such as driving, reading, or watching TV. You and your eye care professional can make this decision together. Once you understand the benefits and risks of surgery, you can make an informed decision about whether cataract surgery is right for you. In most cases, delaying cataract surgery will not cause long-term damage to your eye or make the surgery more difficult. You do not have to rush into surgery.

Sometimes a cataract should be removed even if it does not cause problems with your vision. For example, a cataract should be removed if it prevents examination or treatment of another eye problem, such as age-related macular degeneration or diabetic retinopathy. By having your vision tested regularly, you and your eye care professional can discuss if and when you might need treatment.

What are the risks of cataract surgery?
As with any surgery, cataract surgery poses risks, such as infection and bleeding. Before cataract surgery, your doctor may ask you to temporarily stop taking certain medications that increase the risk of bleeding during surgery. After surgery, you must keep your eye clean, wash your hands before touching your eye, and use the prescribed medications to help minimize the risk of infection. Serious infection can result in loss of vision.

Cataract surgery slightly increases your risk of retinal detachment. Other eye disorders, such as high myopia (nearsightedness), can further increase your risk of retinal detachment after cataract surgery. One sign of a retinal detachment is a sudden increase in flashes or floaters. Floaters are little "cobwebs" or specks that seem to float about in your field of vision. If you notice a sudden increase in floaters or flashes, see an eye care professional immediately. A retinal detachment is a medical emergency. If necessary, go to an emergency service or hospital. Your eye must be examined by an eye surgeon as soon as possible. Early treatment for retinal detachment often can prevent permanent loss of vision. The sooner you get treatment, the more likely you will regain good vision. But even if you are treated promptly, some vision may be lost.

Can problems develop after surgery?
Problems after surgery are rare, but they can occur. These problems can include infection, bleeding, inflammation (pain, redness, swelling), loss of vision, double vision, and high or low eye pressure. With prompt medical attention, these problems can usually be treated successfully.

minimally invasive cataract surgery.

Dr Rajesh Ranjan elaborates, "While the role of femtosecond lasers in cataract surgery is to assist or replace several aspects of the manual cataract surgery. These include the creation of the initial surgical incisions in the cornea, the creation of the capsulotomy, and the initial fragmenting (breaking up) of the lens. The femtosecond laser may also produce incisions within the peripheral cornea to aid the correction of pre-existing astigmatism. The preliminary results are promising. There are several benefits; Femtosecond lasers have been noted to be more precise than microkeratomes, with fewer likely collateral tissue effects. This has contributed to more precise, reproducible and safe LASIK outcomes".

"Knowing the stage helps the doctor plan the treatment for head and neck cancers"

At least 75 percent of head and neck cancers are caused by tobacco and alcohol use. People who use both tobacco and alcohol are at greater risk of developing these cancers than people who use either tobacco or alcohol alone.

According to ***Dr Arun Kumar Goel, Senior Consultant Surgical Oncology, Action Cancer Hospital New Delhi,*** *alcohol and tobacco use (including smokeless tobacco, sometimes called chewing tobacco or "snuff") are the two most important risk factors for head and neck cancers, especially cancers of the oral cavity, oropharynx, hypopharynx, and larynx. It is curable with regular follow-up care. This is very important after treatment for head and neck cancer to make sure that the cancer has not returned, or that a second primary (new) cancer has not developed. Depending on the type of cancer, medical checkups could include exams of the stoma, if one has been created, and of the mouth, neck, and throat. Regular dental exams may also be necessary. Excerpts of the interview...*

What are cancers of the head and neck?

Cancers that are known collectively as head and neck cancers usually begin in the squamous cells that line the moist, mucosal surfaces inside the head and neck (for example, inside the mouth, the nose, and the throat). These squamous cell cancers are often referred to as squamous cell carcinomas of the head and neck. Head and neck cancers can also begin in the salivary glands, but salivary gland cancers are relatively uncommon. Salivary glands contain many different types of cells that can become cancerous, so there are many different types of salivary gland cancers.

What are the symptoms of head and neck cancers?

The symptoms of head and neck cancers may include a lump or a sore that does not heal, a sore throat that does not go away, difficulty in swallowing, and a change or hoarseness in the voice. These symptoms may also be caused by other, less serious conditions. It is important to check with a doctor or dentist about any of these symptoms.

How common are head and neck cancers?

Head and neck cancers account for approximately 3 percent of all cancers in the United States. These cancers are nearly twice as common among men as they are among women. Head and neck cancers are also diagnosed more often among people over the age 50 than they are among younger people.

How can one reduce his risk of developing head and neck cancers?

People who are at the risk of developing head and neck cancers particularly those who use tobacco should consult their doctor about the ways to reduce the risk. They should also discuss with their doctor how often to have checkups. In addition, ongoing clinical trials are testing the effectiveness of various

medications in preventing head and neck cancers in people who have a high risk of developing these diseases.

How are head and neck cancers diagnosed?

To find the signs or symptoms of a problem in the head and neck area, a doctor evaluates a person's medical history, performs a physical examination, and prescribes diagnostic tests. The exams and tests may vary depending on the symptoms. Examination of a sample of tissue under a microscope is always necessary to confirm a diagnosis of cancer.

If the diagnosis is cancer, the doctor will want to learn the stage (or extent) of disease. Staging is a careful attempt to find out whether the cancer has spread and, if so, to which parts of the body. Staging may involve an examination under anaesthesia (in an operating room), x-rays and other imaging procedures, and laboratory tests. Knowing the stage of the disease helps the doctor plan treatment.

How are head and neck cancers treated?

The treatment plan for an individual patient depends on a number of factors, including the exact location of the tumour, the stage of the cancer, and the person's age and general health. Treatment for head and neck cancer can include surgery, radiation therapy, chemotherapy, targeted therapy, or a combination of treatments.

People who are diagnosed with HPV-positive oropharyngeal cancer may be treated differently than people with oropharyngeal cancers that are HPV-negative. Recent research has shown that patients with HPV-positive oropharyngeal tumours have a better prognosis and may do just as well on less intense treatment. An ongoing clinical trial is investigating this question.

Is there any side effect of treatment?

Surgery for head and neck cancers often changes the patient's ability to chew, swallow, or talk. The patient may look different after surgery, and the face and neck may be swollen. The swelling usually goes away within a few weeks. However, if lymph nodes are removed, the flow of lymph in the area where they were removed may be slower and lymph could collect in the tissues, causing additional swelling; this swelling may last for a long time.

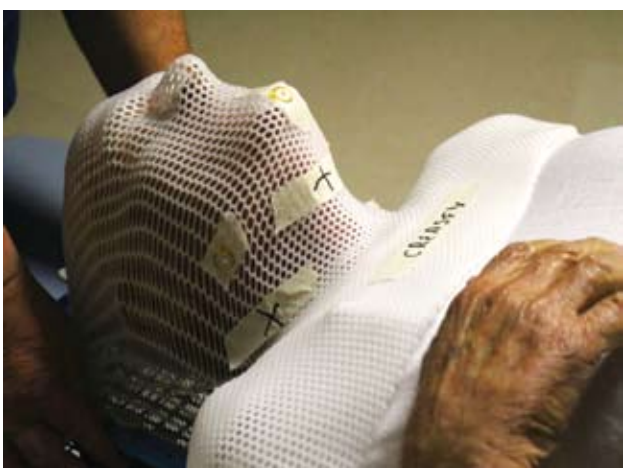
After a laryngectomy (surgery to remove the larynx) or other surgery in the neck, parts of the neck and throat may feel numb because nerves have been cut. If lymph nodes in the neck were removed, the shoulder and neck may become weak and stiff.

Patients who receive radiation to the head and neck may experience redness, irritation, and sores in the mouth; a dry mouth or thickened saliva; difficulty in swallowing; changes in taste; or nausea. Other problems that may occur during treatment are loss of taste, which may decrease appetite and affect nutrition, and ear-aches (caused by the hardening of ear wax). Patients may also notice some swelling or drooping of the skin under the chin and changes in the texture of the skin. The jaw may feel stiff, and patients may not be able to open their mouth as wide as before treatment.

What rehabilitation or support options are available for patients with head and neck cancers?

The goal of treatment for head and neck cancers is to control the disease, but doctors are also concerned about preserving the function of the affected areas as much as they can and helping the patient return to normal activities as soon as possible after treatment. Rehabilitation is a very important part of this process. The goals of rehabilitation depend on the extent of the disease and the treatment that a patient has received.

Depending on the location of the cancer and the type of treatment, rehabilitation may include physical therapy, dietary counselling, speech therapy, and/or learning how to care for a stoma. A stoma is an opening into the windpipe through which a patient breathes after a laryngectomy, which is surgery to remove the larynx.



Sometimes, especially with cancer of the oral cavity, a patient may need reconstructive and plastic surgery to rebuild bones or tissues. However, reconstructive surgery may not always be possible because of damage to the remaining tissue from the original surgery or from radiation therapy. If reconstructive surgery is not possible, a prosthodontist may be able to make aprosthesis (an artificial dental and/or facial part) to restore satisfactory swallowing, speech, and appearance. Patients will receive special training on how to use the device.

Patients who have trouble speaking after treatment may need speech therapy. Often, a speech-language pathologist will visit the patient in the hospital to plan therapy and teach speech exercises or alternative methods of speaking. Speech therapy usually continues after the patient returns home.

Eating may be difficult after treatment for head and neck cancer. Some patients receive nutrients directly into the veins after surgery or need a feeding tube until they can eat on their own. A feeding tube is a flexible plastic tube that is passed into the stomach through the nose or an incision in the abdomen. A nurse or speech-language pathologist can help patients learn how to swallow again after surgery.

Prevent Malignant Growth

People who use tobacco (including cigarettes, cigars, pipes, and smokeless tobacco) or drink alcohol excessively are at great risk for developing head and neck cancers

BY DR ACHAL GULATI

If you are experiencing any symptoms or signs like a lump or sore (for example, in the mouth) that does not heal, a sore throat that does not go away, difficulty in swallowing, and a change or hoarseness in the voice, you should immediately consult your doctor.

The people with head and neck cancer often experience the above-mentioned symptoms or signs. Yet, sometimes people afflicted with head and neck cancer may not show any of these symptoms. Or, these symptoms may be caused by a medical condition that is not cancer.

Because many of these symptoms can be caused by other, noncancerous health conditions as well, it is important to receive regular health and dental screenings. This is particularly important for people who routinely drink alcohol or currently use tobacco products or have used them in the past.

In fact, people who use alcohol or tobacco should receive a general screening examination at least once a year. This is a simple, quick procedure in which the doctor looks in the nose, mouth, and throat for abnormalities and feels for lumps in the neck. If anything unusual is found, the doctor usually recommends a more extensive examination.

If cancer is diagnosed, relieving symptoms remains an important part of cancer care and treatment. This may also be called symptom management, palliative care, or supportive care. Do talk with your health care expert about symptoms you experience, including any new symptoms or a change in symptoms.

> An estimated 85 percent of head and neck cancers are linked to tobacco use. A smoker's risk of developing cancer of the larynx (voice box) or hypopharynx (the top portion of the esophagus) is up to 35 times higher than that of a non-smoker

Most head and neck cancers begin in the squamous cells that line the moist surfaces inside the head and neck. Tobacco and alcohol use, and human papillomavirus infection are important risk factors for head and neck cancers.

Rehabilitation and regular follow-up care are important parts of treatment for patients with head and neck cancers. Cancers of the head and neck are further categorised by the area of the head or neck in which they begin. These areas are described below:

Oral cavity includes the lips, the front two-thirds of the tongue, the gums, the lining inside the cheeks and lips, the floor (bottom) of the mouth under the tongue, the hard palate (bony top of the mouth), and the small area of the gum behind the wisdom teeth. The pharynx (throat) is a hollow tube about 5 inches long that starts behind the nose and leads to the esophagus. It has three parts: the nasopharynx (the upper part of the pharynx, behind the nose); the oropharynx (the middle part of the pharynx, including the soft palate [the back of the mouth], the base of the tongue, and the tonsils) and the hypopharynx (the lower part of the pharynx).

The larynx, also called the voice box, is a short passageway formed by cartilage just below the pharynx in the neck. The larynx contains the vocal cords. It also has a small piece of tissue, called the epiglottis, which moves to cover the larynx to prevent food from entering the air passages.

The paranasal sinuses are small hollow spaces in the bones of the head surrounding the nose. The nasal cavity is the hollow space inside the nose. The major salivary glands are in the floor of the mouth and near the jawbone. The salivary glands produce saliva.

Cancers of the brain, the eye, the esophagus, and the thyroid gland, as well as those of the scalp, skin, muscles, and bones of the head and neck, are not usually classified as head and neck cancers. Sometimes, cancerous squamous cells can be found in the lymph nodes of the upper neck when there is no evidence of cancer in other parts of the head and neck. When this happens, cancer is called metastatic squamous neck cancer with unknown primary.

Many head and neck cancers arise after prolonged exposure to known risk factors such as tobacco, alcohol, and cancer-causing agents in the workplace. These cancers are generally considered preventable. Others, such as parathyroid cancer, are not associated with any preventable risk factor. Some people who develop head and neck cancers have no known risk factors.

People who use tobacco (including cigarettes, cigars, pipes, and smokeless tobacco) or drink alcohol excessively are at much greater risk for developing head and neck cancers. An estimated 85 percent of head and neck cancers are linked to tobacco use. A smoker's risk of developing cancer of the larynx (voice box) or hypopharynx (the top portion of the esophagus) is up to 35 times higher than that of a non-smoker. Heavy use of alcohol raises the risk of those cancers two to five times. Those who smoke and drink heavily may raise their risk to 100 times that of non-users.

Men are two to three times more likely than women to develop a head or neck cancer because of their greater use of tobacco and alcohol. However, women are catching up: the rates of head and neck cancers found in women have been rising for several years.

There are many risk factors for cancers of the head and neck. The people who use paan (betel quid) in the mouth should be aware that this habit has been strongly associated with an increased risk of oral cancer Poor oral hygiene

and missing teeth may be weak risk factors for cancers of the oral cavity.

Use of mouthwash that has high alcohol content is a possible, but not proven, risk factor for cancers of the oral cavity. Certain industrial exposures, including exposures to asbestos and synthetic fibers, have been associated with cancer of the larynx, but the increase in risk remains controversial.

Making certain lifestyle changes can significantly lower a person's risk of developing a head and neck cancer. Quitting smoking can substantially reduce the risk, even for those who smoked for many years. People who already have a head and neck cancer and quit using tobacco can reduce the risk of developing a second tumour by as much as 60 percent. People who are exposed to toxic fumes and dust in the work place or in other environments can reduce the risk of head and neck cancer by wearing protective face masks. Companies can also install air-filtering systems to minimise employees' exposure to harmful fumes and dust.

Making certain lifestyle changes can significantly lower a person's risk of developing a head and neck cancer. Quitting smoking can substantially reduce the risk, even for those who smoked for many years

The author is Director Professor, ENT, Maulana Azad Medical College, New Delhi

How to Prevent Cancer

Cancer is preventable if we can protect our environment and rule out cancer causing factors such as pollution

BY ABHIGYAN

Mukesh, a 34-year-old engineer, was suffering from an irritating cough for last one month. He has never smoked a cigarette or consumed alcohol but his cough was gradually increasing and getting worse. He started losing appetite and weight. He became very worried and went to his family doctor. He got a chest X-ray done but on hearing the result of the report, all hell broke loose on him. It seemed as if life has come to an end.

He was married eight years ago and had two small children and parents to look after. He had never thought that one day he will come across such a situation: suspected of having lung cancer. He got very worried about the fate of his wife, children and parents after he was gone. He went into severe depression. His wife tried to console him but in vein. Suddenly he remembered that his neighbour, Suresh also had cancer a few years ago and is now free of the disease, this thought gave him a lot of courage. He went to meet him and was happy to see that he was hale and hearty as if he was never afflicted with cancer.

He asked for guidance from Suresh who told him that he had throat cancer and taken treatment from Dr Dinesh Singh, a senior radiation oncologist, in Action Cancer Hospital, and recommended him to see him. Mukesh went to Action Cancer Hospital and met Dr Dinesh Singh. The doctor investigated him extensively to confirm the stage of cancer. Mukesh was found to be suffering from locally advanced lung cancer which was inoperable and required treatment with radiotherapy and concurrent chemotherapy.

Dr Dinesh told Mukesh that Action Cancer Hospital was equipped with the latest radiotherapy equipment along with an extremely qualified and competent medical team to manage chemotherapy. He started his treatment there but wondered how he got this disease, when he was neither a smoker, nor consumed alcohol or any other substance.

Dr Dinesh Singh told Mukesh that the environment pollution is a very major cause of cancer in our city. Delhi is one of the most polluted cities in the world. Mukesh was startled, he had never thought about it. He realised that at so many places people burn garden waste, or to keep themselves warm in winters they burn anything they can lay their hands on. No one stops them or educates them about cancer-causing smoke coming out of it. Our farmers burn remnants of harvest to clear fields, which produce so much smoke. We use so many vehicles emitting smoke and choking vast stretches of Delhi, Haryana, Punjab and neighbouring states.

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DR DINESH SINGH
Senior Radiation Oncologist, Action Cancer Hospital, New Delhi

Mukesh's treatment lasted few months and he got cured. Since then he has devoted his life fighting for clean environment and preventing cancer.

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CGHS on panel

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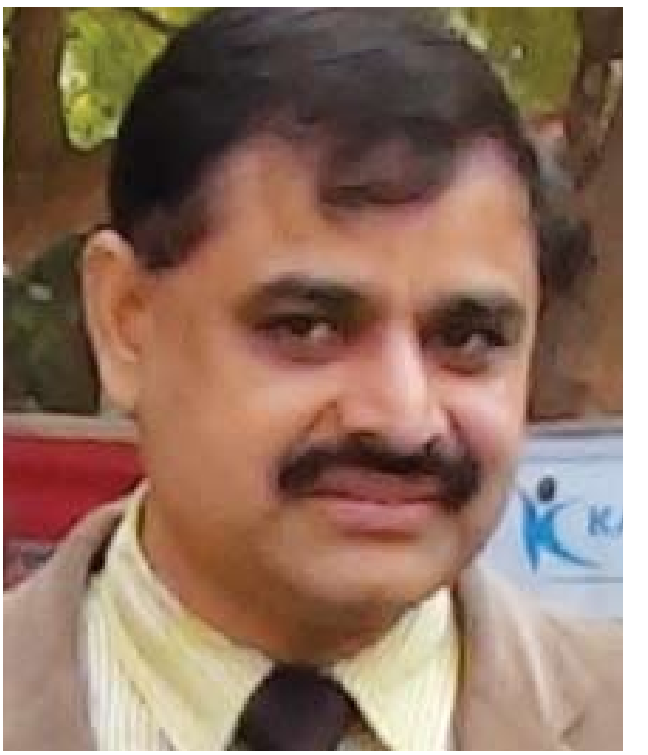
Destination India

India offers overseas patients quality dental treatments at comparatively low prices. Millions of people every year fly from USA and Europe to tourist places in India for a grand holiday and dental care

BY DR SURESH AHLAWAT



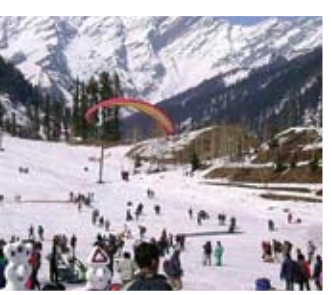
Dental Tourism has a huge potential in India, the reason being that aperson while undergoing dental treatment of world standards can get to enjoy the exotic locales that India has to offer. The dentists at their clinics strive to offer treatment that parallels the best in the world, while ensuring that the overall experience of the patient is a pleasurable one.

India is favoured as one of the best dental tourism destinations forits quality dental treatments at comparatively low price. People visiting the country for their dental needs also relish the benefits of India as a cheap tourist destination. The total cost of travel to India along with the cost of treatment and sight seeing for dental tourists is far less than what it would have cost them for a treatmentin their own country.

Dental tourism is a subset of the sector known as medical tourism. It involves individuals seeking dental care outside of their local health care systems and may be accompanied by a vacation. Dental tourism is growing world wide as the world becomes ever more interdependent and competitive, technique, material, and technological advances spread rapidly, enabling providers in developing countries to provide dental care at a low cost.

Additionally, in many countries, the dental insurance does not cover anything other thanbasic treatment procedures. So, if someone is facing such a situation then try being a medical traveller and plan for a dental tourism to India and say good-bye to your dental problems without worrying about your budgetary constraints.

Under the dental tourism package dental clinics provide complete dental care covering dental surgery and dental care. Millions of people every year fly from USA and Europe to tourist places in India for a grand holiday and dental care.



The costs of dental care in the western countries are approximately 10 times more than that in India.

In India, dental care can be clubbed with a grand holiday in India which comes for free as the cost of dental treatment in India is nearly a tenth compared to Western and European countries. In India, the dentists have their own clinics with state of the art equipment and well trained experienced doctors to match the best of international standards.

In today's world with a multitude of infections, one of the prime concerns of a person visiting a dental clinic is the level of sterilization. The dentists ensure that all times strict asepsis is maintained there by keeping the patients safety at top priority. They do not compromise on the quality of treatment even though it remains cost effective

While dental tourists may travel for a variety of reasons, their choices are usually driven by price considerations. Wide variations in the economics of countries with shared borders have been the historical mainstay of the sector. Examples include travel from Austria to Hungary, Slovakia, Slovenia and Romania, from the US and Canada to Mexico, Costa Rica and Peru, from the Republic of Ireland to Northern Ireland, Hungary, Poland, Turkey and Ukraine, and fromAustralia to Thailand and other countries of South-East Asia. While medical tourism is often generalized to travel from high-income countries to low-cost developing economies, other factors can influence a decision to travel, including differences between the funding of public healthcare or general access to healthcare.

For countries within the European Union, dental

Dental tourism is a subset of the sector known as medical tourism. It involves individuals seeking dental care outside of their local healthcare systems and may be accompanied by a vacation

qualifications are required to reach a minimum approved by each country's government. Thus a dentist qualified in one country can apply to any other EU country to practise in that country, allowing for greater mobility of labour for dentists. The Association for Dental Education in Europe(ADEE) has standardization efforts to harmonize European standards.

The proposals from the ADEE's Quality Assurance and Benchmarking task force cover the introduction of accreditation procedures for EU dentistry universities as well as programmes to facilitate dental students completing part of their education in foreign dentistryschools. Standardization of qualification in a region reciprocally removes one of the perceptual barriers for the development of patient mobility within that region.

Dental tourists travel chiefly to take advantage of lower prices. Reasons for lower prices are many: dentists outside the developed world are able to take advantage of much lower fixed costs, lowerlabour costs, less government intervention, lower education fees and expenses, and lower insurance costs. Much of the bureaucratic red-tape that engulfs businesses in the developed world is eliminated abroad, and dentists are free to focus on their trade, dentistry. The flip-side of this is less legal recourse for patients when some thing goes wrong, but the result is that procedures, such as dental implants and porcelain veneers, which are simply financially out of reach for many people in the developed world, are made affordable overseas.

Much of the debate about dental tourism and medical tourism in general centres on the question of whether or not price differentials imply quality differentials. Another concern is whether or not large scaledental procedures can be safely completed abroad in a relatively short, "holiday-sized" time period. An instructive case study provides ananalysis of patient outflows from the United Kingdom and Ireland, two large sources of dental tourists. Both countries were the subject of areport from the Irish Competition Authority to determine whether consumers were receiving value for money from their dentists. Both countries' professions were criticised for a lack of pricing transparency. A response to this is that dentistry is unsuitable for transparent pricing: each treatment will vary, an accurate quote is impossible until an examination has occurred. Thus price lists are noguarantee of final costs. Though they may encourage a level of competition between dentists, this will only happen in a competitive environment where supply and demand are closely matched.

The 2007 Competition Authority report in the Irish Republic criticised the profession on its approach to increasing numbers of dentists and the training of dental specialties – orthodontics was a particular area for concern with training being irregular and limited in numberof places. Supply is further limited as new dental specialties developand dentists react to consumer demand for new dental products, furtherdiluting the pool of dentists available for any given procedure.

Aside from the above issues, it is possible to compare the prices of treatment in different countries. With the international nature of some products and brands it is possible to make a valid comparison. Clearly, undergoing extensive dental procedures abroad, even when allowing for travel expenses, can be significantly cheaper than the same procedures at home. Pricing and qualifications of the dentists may be researched through websites or by contacting the dentists. Another important consideration is location: if one travels far for adental procedure and something goes wrong, it is a long way to returnto fix it as well.

Since procedures often require multiple steps, or subsequent check-ups, the patient may have to return to the same doctor for those reasons. Typically, a patient takes two trips to have implants. The first tripis to set the base and the provisional crown. The second trip is typically 4–6 months later after the implant has stabilized in the bone. One Day Implants are not recommended for dental tourists due to the higher failure rate of the system. When combined with a holiday, as the name implies, dental tourism canbe an opportunity to receive low-cost, quality dental care. Dental tourism in India is expected to continue growing, as consumers continue to seek out lower-cost options.

(The author is Senior Dental Surgeon, Muskan Dental Care Centre, DLF, Gurgaon)

CSR activities by realty player

As responsible city centre destinations, AlphaOne, Amritsar and AlphaOne, Ahmedabad are actively involved with several Corporate Social Responsibility (CSR) initiatives that qualitatively and quantitatively contribute to the societal welfare of Amritsar and Ahmedabad respectively. AlphaOne undertakes CSR for areas and villages surrounding their developments to ensure that the success and benefits of the projects proliferate to surrounding communities with increase in employment opportunities, healthcare assurance, encouragement of special talents and overall socio-economic development. Activities in this regard are ongoing and increasing all the time.

In 2011, on the 1st anniversary of Alpha One, Amritsar, as a gesture of gratitude to Amritsar and its people, Dr. Prodipta Sen announced the groundbreaking CSR activity, 'Let's Make Amritsar Sparkling' entailing the sustainable cleanliness drive of Amritsar via the monthly community initiative. Since then, AlphaOne along with the local civic authorities and like-minded partners has been diligently carrying out this monthly drive with constantly increasing participation. AlphaOne, Amritsar along with the Mayor and employees of the Municipal Corporation ensures a systematic approach for better sanitation on an ongoing basis. The monthly eco-initiative is a collaborative effort by AlphaOne and like-minded partners including the Mayor's office, Municipal Authorities, Airports Authority of India, Fortis Hospital, AIESEC, Voice of Amritsar, Sai Arts, Alfaaz Academy, Ibadaat School, Spring Dales School, as well as top Brands like Coke, My FM, Big FM, et al.

The AlphaOne team has successfully mobilized the people of Amritsar in the initiative as well as educated residents about the municipal facilities available to them to maintain clean and hygienic surroundings, thereby keeping the Holy city clean by doing their own bit as citizens, e.g., not dumping garbage on road sides, spitting, etc.

Dr. Prodipta Sen, Executive Director, Alpha G:Corp & Spokesperson, Alpha Management Services, elaborated on the objectives and success of the 'Let's Make Amritsar Sparkling' initiative. "Taking it to the next level, AlphaOne introduced 'Be The Change Club', a large step towards youth development and wellness in Amritsar. This initiative has mobilized Amritsaris and the city authorities regarding healthy and wholesome living without drug abuse. Amritsari youth are benefiting from various learning programs, self-governance, personal development, health education programs, sports activities as well as career orientation counselling and seminars." AlphaOne, Amritsar constantly organizes free health clinics and counselling for Amritsaris on the occasions of World Heart Day, World AIDS Day by tying-up with NGOs, Hospitals and Doctors. Besides, Blood donation camps, signature drives, school induction programs, no tobacco campaigns, in-house Medical Inspection room, in association with Fortis for all staff of AlphaOne and its retailers, as also AAI daily wages staff and challenged kids are constant features.

AlphaOne, Ahmedabad whole-heartedly supported the Motif Charity Walk on February 12th. The money collected was donated to four NGOs that work for women empowerment, rural empowerment, physically and mentally challenged girls and rehabilitation and education for disabled children. AlphaOne also partnered with the United Sisters Foundation Initiative for SBI Pinkathon 2014 in Ahmedabad on October 12th to support the cause of breast cancer awareness. World Disability Day, World No Tobacco Day, et al., are all observed at AlphaOne, Ahmedabad with large public participation, providing free consultation to visitors, besides educating them to manage emergencies. Also, workshops for arts, crafts and recreation of senior citizens and children, are regularly taken up.

Affordable Medicines: Still a Far Cry

BY DR A K AGARWAL

Improving perceptions of the adequacy, integrity and responsiveness of public services is an important goal. Presently, the Indian health care system is, especially in urban areas, largely private provider dominated. The provision of health care has not been a high profile political issue in India. Political and media attention has often focused on cutting the prices of medicines, even if in reality the latter can have little impact on overall care costs and/or outcomes in poorly structured markets and health service environments.

What is relatively certain is that no informed observer of the Indian situation would argue that the recent nationwide programme aimed at improving the provision of good quality, free to the consumer, generic medicines via the public health system is timely and appropriate. Free publicly funded medicines supply has fundamental advantages for poor and vulnerable service users.

It is understandable that the people are concerned about the cost of pharmaceutical products. On a day-to-day basis many people experience outlays on drugs as the dominant element in the out-of-pocket expenditures they believe are needed to protect their health. As per an estimate, a half of total health care outlays are spent on purchasing 'drugs'.

Spending on allopathic (western science based as opposed to other traditional) medicines expressed in manufacturer's prices is unlikely to account for more than about 20 per cent of total health spending in India. It is also worth stressing that tragedies such as families being driven into poverty because of health care costs can in large part be seen as resulting from a collective failure adequately to provide systems that protect patients from potentially catastrophic risks, including those of hospital care that is not available via public agencies.

People in India are concerned about the cost of pharmaceutical products. On a day-to-day basis, they experience outlays on drugs as the dominant element in the out-of-pocket expenditures they believe are needed to protect their health

There is an undue concentration on controversies in areas like pharmaceutical pricing as opposed to the importance of achieving equitable – risk sharing – financial arrangements for enabling universal health care access.

India today encounters the growing burden of long-term non-communicable conditions (NCDs). Key ways forward range from curbing tobacco use and promoting increased physical activity through to extending the use of medicines that can lower risk factors such as high blood pressure, hyper-glycaemia and/or hyper-cholesterolaemia.

In 2012 the agency IMS, with research based pharmaceutical industry funding, conducted nearly 15,000 household interviews across 12 Indian states. This work took place in rural and urban areas and examined experiences of both hospital and outpatient care. It found that over 90 per cent of respondents said they felt able to get medical help when they are ill, albeit that this was less often the case in rural areas than in urban localities. This research also confirmed that the cost of medicines is the health care concern most frequently expressed by modern Indians, and that affordable access to treatment for chronic illnesses is more of a problem than access to drugs for acute illness episodes.

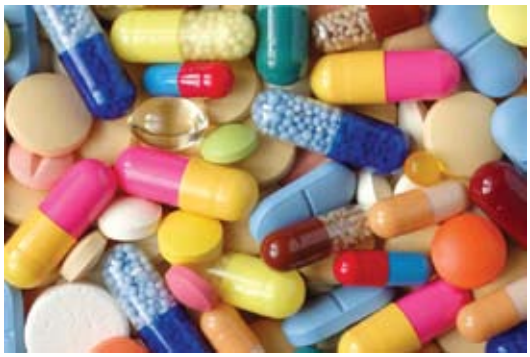
Although India has rapidly developed pharmaceutical manufacturing capabilities and achieved a relatively strong exporting record, it is yet ensure that free or low cost, good quality, medicines are consistently available to the poorer half to two thirds of the domestic population.

The country's future success in this area will in large part depend on reducing levels of corrupt and allied perverse behaviours amongst prescribers and publicly funded medicines suppliers and purchasers.

One possible way forward in this

context could be the development of enhanced mechanisms for consumer reporting of public health service failures to supply free medicines, through – for example – the anonymous use of SMS (short message service) texting to independently run national health service quality surveillance centres.

To date, local Indian pharmaceutical manufacturers have had little or no need for intellectual property protection other than the use of trade names. Their domestic earnings have been in large part derived from promoting the sale of branded mature medicines. But if the use of minimum cost high quality generic medicines is significantly extended progressive Indian companies may



become more motivated to invest in developing new, more effective, products. It is by no means certain this will prove possible. But if it can be achieved they will consequently become more dependent on provisions other than brand name protection, including patents or alternatives such as periods of 'regulatory exclusivity', for the successful continuation of their businesses. In the case of outpatient (i.e. primary and community care) services, private facilities are today typically more accessible – in the sense that most people find it easier to travel to them – than publicly provided services. This was not found to be so with hospital care. People in rural and poorer urban areas are, unsurprisingly, more likely to be public service users than the remainder of the population. This is mainly because of the opportunity to obtain free medication.

(The author is Professor of Excellence, Maulana Azad Institute of Medical Science, New Delhi)

Health Care in India: Challenges and Opportunities

BY DR VINAY AGGARWAL

Since independence in 1947, life expectancy in India at birth for men and women combined has doubled to 65 years. However, the country has experienced delayed demographic and epidemiological transitions. Despite the gradual progress of recent decades infant mortality is still over 40 per 1000, while maternal mortality is 2 per 1000 live births. Healthy life expectancy in India remains about 55 years, compared with close to 70 years reported in countries such as China, the US and Japan.

India currently spends only 1.2 per cent of its GDP on publicly funded health care. If the country invests adequately in improving universally accessible health care and preventing and treating infectious as well as non-communicable diseases, it can become one of the world's wealthiest and healthiest nations. The challenges facing India today relate to bridging the transition from fighting infections to reducing the burden of chronic disease and living healthily in later life.

About 40 per cent of all deaths in India are still due to infections. The majority of the remainder are mainly due to non-communicable conditions such as cardiovascular diseases (heart attacks and associated conditions, including strokes, are alone responsible for a quarter of all mortality), chronic respiratory disorders and cancers.

Presently, the burden of ill health imposed on Indian society is equivalent in lost potential welfare terms to 12.5 per cent of GDP for infectious and allied complaints and 12.5 per cent of GDP for non-communicable diseases (NCDs). However, the harm and loss caused by NCDs will in future rise in its relative significance, especially if tobacco consumption does not fall and the use of medicines along with other interventions to prevent and manage disorders such as hypertension, hyperlipidaemia and type 2 diabetes is not markedly increased. It is anticipated that 100 million people in India will be living with type 2 diabetes by 2040.

> The public as a whole will benefit much more from the introduction of universal health coverage and a wider use of medicines for preventing and treating early stage vascular diseases, diabetes and cancers

The public health care system has been strengthened since the start of the 21st century by initiatives such as the National Rural Health Mission (NRHM). But it still suffers from significant limitations in areas such as the (free) provision of essential medicines to the 400-600 million poorest Indians.

Most health care in India is presently provided via the private sector. Because of a lack of affordable insurance protection it is principally funded via out-of-pocket payments. A majority of Indians believe they have adequate access to services. But there is evidence that the current system often fails to meet medically defined needs and is ill-suited to meeting the requirements of communities characterised by increasing chronic/non-communicable disease burdens.

The Planning Commission for India, which complements the directly elected elements of Government, instituted a High Level Expert Group (HLEG) on Universal Healthcare Coverage (UHC). This was chaired by Dr Srinath Reddy of the Public Health Foundation of India and reported in 2011. Subsequently, the country's 12th Five Year Plan projected an increase in public health spending to 2.5 per cent of GDP by 2017.

Many commentators believe that a key way of achieving better public health is via reducing the prices of medicines for treating conditions such as advanced cancers. Yet this is not the case. Measures like issuing compulsory licenses on such products can at best benefit only small numbers of better-off people and some local pharmaceutical companies. The public as a whole will benefit much more from the introduction of universal health coverage and a wider use of medicines for preventing and treating early stage vascular diseases, diabetes and cancers.

India is now the world's 3rd largest medicines producer by volume. But it is not yet in the top 10 by value. The available sources indicate that the domestic Indian pharmaceutical market for allopathic drugs is today worth in the order of US $13-14 billion a year. India's pharmaceutical exports – which the Government is seeking to expand are of comparable value.

In financial terms, India's most important external pharmaceutical markets are the US and the EU. Low cost Indian made medicines have been important in extending access to treatments for conditions such as HIV in poorer parts of the world.

(The author is Chairman, Pushpanjali Crosslay Hospital, Ghaziabad and Member, Medical Council of India)

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Restoring Life: Kidney Transplant

BY DR S P YADAV

According to a recent study, India sees more kidney transplants than any other country in the world barring the US. Under the Transplantation of Human Organs Act, 1994 there is permission of organ retrieval from the brain-dead patients, kidney donations by live donors remain very much in vogue. The country , however, slips to the 40th rank in the study of 69 countries in terms of number of transplants per million population, with only three in a million getting the kidney in case of a renal failure.

A report reveals that about 27,000 related and unrelated living kidney donor (LKD) transplants occur worldwide every year, of which 6,435 take place in the US and 1,768 in Brazil with India figuring in between with about 3,200 transplants, a number which the authors said, doesn't represent "reliable national data".

Although there is no national registry so that one can know about how many kidney transplants occur in India. Multi Organ Harvesting Aid Network Foundation in Chennai estimates that the number of transplants per year to be in the range of 3,000-3,500, with barely 5% coming from the brain-dead. The annual requirement is about 150,000. The LKD rates in two-thirds of the 69 nations surveyed have been growing at 50% over the last decade, but India remains stuck at the same level due to lack of health insurance, and institutional and financial support.

A kidney transplant costs about

Rs3-4 lakh, with a lifetime monthly post-operative care costing at least Rs10,000. Tracking the rate of LKD is important as the worldwide prevalence of end-stage renal disease is increasing and a global trend can help countries evaluate their performance.

India is in an unenviable position when it comes to the disease burden, implementation of the organs Act and preventing kidney rackets that frequently rock the nation.At present, brain-dead transplant, also called disease donation, amounts to 0.7 per million population, but if this is increased to one, then there would be 1,100 donors and 2,200 kidneys for transplants, said Shroff. If pushed further, to two per million population, then 4,400 kidneys could be retrieved, dramatically reducing the burden on living donors.

The surgeons have a problem in LKD operating on healthy people, who in many cases die or develop complications. Unlike the West, which started with cadaver transplants and took to living donors to bridge the gap, India started with living donors and even 15 years after the Act, has failed to adopt cadaver transplants in earnest. Some of the ambiguities in the Act that led the kidney donor-broker hospital nexus to thrive have now been cleared.

Now a days Kidney diseases are being considered as silent killers. According to medical practitioners two persons every five minutes or roughly two lakh people die due to kidney-related diseases in the country every year.The need of the hour is to have more detection clinics and take steps to arrest the deaths due to kidney failure.

Most people are not aware of the fact that kidney diseases can be silent killers. They may not show any symptoms for a long time till the situation becomes critical. The first symptom of kidney disease is changes in the amount and frequency of your urination. There may be an increase or decrease in amount and/or its frequency, especially at night. It may also look more dark coloured. You may feel the urge to urinate but are unable to do so when you get to the restroom.

The most common causes of kidney disease include diabetes, high blood pressure, and hardening of the arteries (which damages the blood vessels in the kidney). Some kidney diseases are caused by an inflammation of the kidneys, called nephritis. This may be due to an infection or to an autoimmune

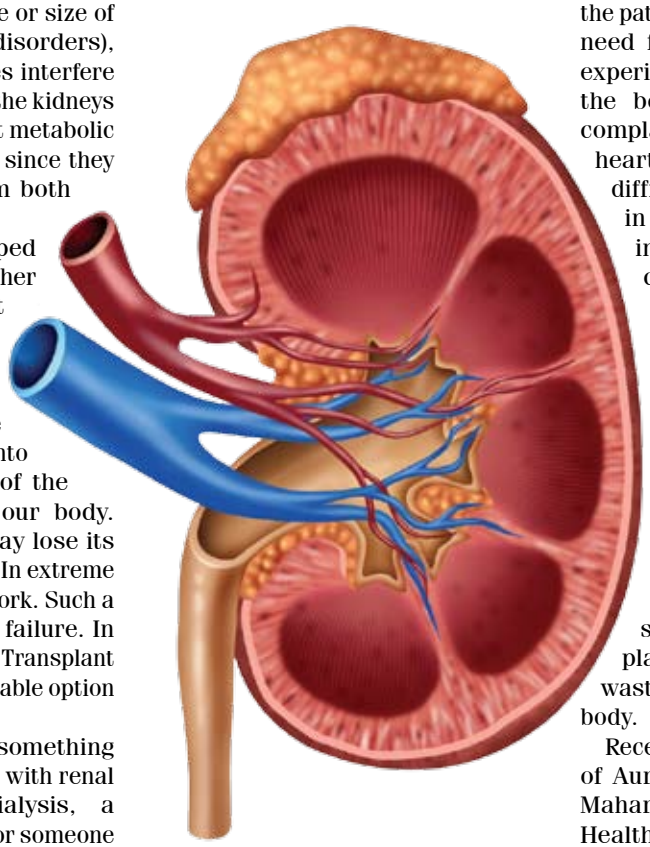
reaction where the body's immune or defence system attacks and damages the kidneys. Other kidney diseases like polycystic kidney disease are caused by problems with the shape or size of the kidneys (anatomic disorders), while other kidney diseases interfere with the inner workings of the kidneys (metabolic disorders). Most metabolic kidney disorders are rare, since they need to be inherited from both parents.

The two bean-shaped kidneys are located on either side of the body, just underneath the ribcage. The main role of the kidneys is to filter out waste products from the blood before converting it into urine. Kidneys play one of the most vital functions in our body. Sometimes, the kidney may lose its ability to function properly. In extreme cases, they may cease to work. Such a condition is called kidney failure. In such extreme cases, Kidney Transplant is believed to be the most viable option in the long run.

A kidney transplant is something that is needed for a patient with renal failure. Other than dialysis, a transplant is the only way for someone with advanced renal failure to survive. A transplant must come from a health donor who is a match, and even after a transplant, the patient has to take medication and be under a doctor's supervision for the rest of his life

A kidney transplant may be performed regardless of age of the recipient (patient who requires the kidney) provided they have a general health status that can withstand the major operation, there is a good chance of transplant success and the person is aware and willing to comply with taking immunosuppressant medications after the transplant to prevent rejection of the new organ by the body's immune system. The patients suffering from widespread cancer, an active infection, liver or heart disease and AIDS kidney transplant are advisable to go through kidney transplant.

The patients usually require dialysis when the waste products in their body become so high that they start to become sick from them. The level of



the waste products usually builds up slowly. Doctors measure several blood chemical levels to help decide when dialysis is necessary. The two major blood chemical levels that are measured are the "creatinine level" and the "blood urea nitrogen" (BUN) level. As these two levels rise, they are indicators of the decreasing ability of the kidneys to cleanse the body of waste products.

Generally doctors use a urine test, the creatinineclearance to measure the level of kidney function. The patient saves urine in a special container for one full day. The waste products in the urine and in the blood are estimated by measuring the creatinine. By comparing the blood and urine level of this substance, the doctor has an accurate idea of how well the kidneys are working. This result is called the creatinine clearance. Usually, when the creatinine clearance falls to 10-12 cc/minute, the patient needs dialysis.

The doctor uses other indicators of the patient's status to decide about the need for dialysis. If the patient is experiencing a major inability to rid the body of excess water, or is complaining of problems with the heart, lungs, or stomach, or difficulties with taste or sensation in their legs, dialysis may be indicated even though the creatinine clearance has not fallen to the 10-12 cc/minute level.

There are two main types of dialysis: "hemodialysis" and "peritoneal dialysis." Hemodialysis uses a special type of filter to remove excess waste products and water from the body. Peritoneal dialysis uses a fluid that is placed into the patient's stomach cavity through a special plastic tube to remove excess waste products and fluid from the body.

Recently a super specialty hospital of Aurangabad registered with the Maharashtra State Directorate of Health Services has registered the highest number of kidney transplants in the state for the third year running. The hospital has conducted around 1,000 kidney transplants since 1992 . About 67 hospitals registered under the Maharashtra State Directorate of Health Services are performing kidney transplants in the state.

Among the 1,000 people who underwent live transplants, 22 were below 12 years of age and the rest were adults. As many as 42 people underwent transplant for the second time and four cases were related to third-time transplant.With a view to create more awareness, the hospital in association with Indian Medical Association's Aurangabad chapter and Suman Kidney Foundation is used to organised a conference which focus on issues like role of Rajeev Gandhi JeevandaiYojana dialysis services and sensitization of cadaver kidney

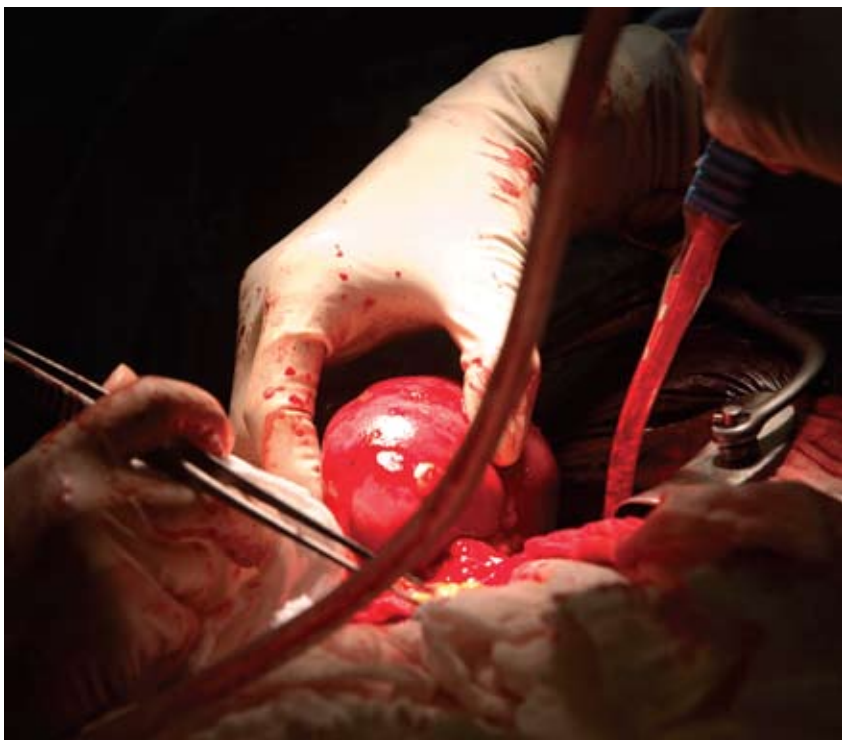
transplant which has still not picked up due to lack of public awareness and the people's unwillingness to become organ donors.

About 3200 kidney transplants are performed in the India every year and many more could be performed if more kidneys were available. The success rate for kidney transplants is excellent and higher than for other kinds of organ transplants at affordable cost through IMH.The transplant kidney provides enough kidney function. After a successful transplant, there is no need for dialysis, provided the transplant continues to work well. The patients who have a successful transplant should feel better and have more energy. There may still be a need to watch your diet to protect the kidney.

Chronic Kidney Disease (CKD) is one of the major causes of global morbidity and mortality even in developing countries. Burden of CKD in India cannot be assessed accurately but the approximate prevalence of CKD is 800 per million population and incidence of End Stage Renal Disease (ESRD) is 150 to 200 per million population in India.

The most common cause of CKD diabetic nephrology. While common cause of CKD are chronic glomerulonephritis, diabetic, nephropathy, chronic interstitial nephritis, hypertensive nephrology and polycystic disease. About 1.5 lakh new patients are added every yearto the existing pool of ESRD in India, out of which only about 2 percent or roughly 3500 ESRD patients are able to get kidney transplamt every year. About 10 percent of new ESRD cases in India get dialysis or kidney transplant every year. So 90 percent of new ESRD patients are not able to get renal transplant therapy.

Integrated with teams of eminent surgeons and competent staff who deliver effective, very attentive to take care and enrich the lives of the patients. With state-of-the art equipment and multi-disciplinary medical teams, Our department ensures to help and support the patients, both before and after the transplant. The department performs dialysis and manages treatment of kidney related disorders. Rigorous precautions are taken for patients suffering from Hepatitis B and C and dialysis for such patients is done on a separate machine.



A kidney transplant costs about Rs3-4 lakh, with a lifetime monthly post-operative care costing at least Rs10,000.

In most cases the barely functioning existing kidneys are not removed, as this has been shown to increase the rates of surgical morbidities. Therefore the kidney is usually placed in a location different from the original kidney, often in the iliac fossa, so it is often necessary to use a different blood supply. The renal artery of the kidney, previously branching from the abdominal aorta in the donor, is often connected to the external iliac artery in the recipient.The renal vein of the new kidney, previously draining to the inferior vena cava in the donor, is often connected to the external iliac vein in the recipient.

The transplant surgery lasts five hours on average. The donor kidney will be placed in the lower abdomen and its blood vessels connected to arteries and veins in the recipient's body. When this is complete, blood will be allowed to flow through the kidney again. The final step is connecting the ureter from the donor kidney to the bladder. In most cases, the kidney will soon start producing urine. Depending on its quality, the new kidney usually begins functioning immediately. Living donor kidneys normally require 3–5 days to reach normal functioning levels, while cadaveric donations stretch that interval to 7–15 days. Hospital stay is typically for 4–7 days. If complications arise, additional medications (diuretics) may be administered to help the kidney produce urine.

(The author is Senior Urologist, Puspanjali Hospital, Gurgaon and Member, Medical Council of India)

PCCON-2014 on Emerging Emergency Medicine

In association with IMA (East.Delhi & West Ghaziabad Branch) Pushpanjali Crosslay Hospital recently organized its 6th Annual Medical Conference "PCCON-2014".

The theme for this year's PCCON-2014 was "Emerging Emergency Medicine" under which the participating doctors, physicians, paramedical staff along with medical students did not only get an opportunity to know the latest in the medical field but also got a chance to interact with the eminent speakers of international repute.

PCCON-2014 was inaugurated by Maneka Gandhi, Minister for Women and Child Development, Govt. of India along with Dr. Mahesh Sharma, The Minister of State (Independent Charge) and Rtd. General V K Singh.

Apart from this, PCCON Oration was delivered by Dr. Ved Prakash Mishra, Chairman Academics, Medical Council of India on "Effective Medical Education for Efficient Trained Health Manpower". Over 1,000 from Delhi-NCR and UP. Delegates were witnessed the 2-day conference.

In line of regular conference on health issue Pushpanjali Crosslay Hospital is used to hold Special Training Sessions for a week prior to the conference. In this Special Training Sessions different people from the society will be given hands-on training on Certified BLS (Basic Life Support) Techniques. The aim of this certified BLS training is to let the common man learn the life saving methods and save one life in their life.

Speaking on the occasion Dr. Vinay Aggarwal, Chariman & Managing Director, Pushpanjali Crosslay Hospital, Dr. Vijay Agarwal, Executive Director; Dr. Gaurav Aggarwal, Director; Organizing Committee Chairman Dr. Arun Kakkar, Organizing Joint Secretary-Dr. Sandeep Jain and Dr. Ruby Bansal highlighted that each member in the society should have the Basic Life Support training which can act very important at the time of emergency.

Back Pain: Don't neglect it

BY DR MANISHA YADAV

Today back pain is a common complaint. Most people will experience low back pain at least once during their lives. The back pain is one of the most common reasons people go to the doctor or miss work.

Most back pain originates in the back and not the actual spine. Because most back pain is related to the muscles of the back, the specific cause of most back pain often cannot be determined by imaging studies.

To diagnose back pain-unless you are totally immobilized from a back injury the doctor probably will test your range of motion and nerve function and touch your body to locate the area of discomfort. Sometimes blood and urine tests are performed to make sure that the back pain is not caused by an infection or other more widespread medical problem.

If your symptoms persist more than four to six weeks, you have suffered trauma. Or, if your doctor suspects a serious cause behind the back pain, The X-rays may be ordered. X-rays are useful in pinpointing broken bones or other skeletal defects. They can sometimes help locate problems in connective tissue. To analyze soft-tissue damage, computed tomography (CT) or magnetic resonance imaging (MRI) scans may be needed. To determine possible nerve or muscle damage, an electromyogram (EMG) can be useful.

X-rays and MRI studies have limitations and must be interpreted with caution. Back pain may be incorrectly attributed to non-specific and unrelated abnormalities on the images. Ordinary and expected wear and tear in the spine and discs may be mistaken as the cause of a person's back pain.

Unless you are totally immobilized from a back injury, your doctor probably will examine your range of motion and nerve function and touch your body to locate the area of discomfort. Blood and urine tests may be done to determine if the pain is caused by an infection or other systemic problem. X-rays are useful in pinpointing broken bones or other skeletal defects.

The basic treatment for relieving acute back pain from strain or minor injury is a limited period of rest for 24 to 72 hours. An ice pack can be helpful, as can aspirin or another nonsteroidal anti-inflammatory drug (NSAID) to reduce pain and inflammation. Do not give aspirin to a child aged 18 years or younger because of the increased risk of Reye syndrome. After the inflammation subsides, applying heat can soothe cramped muscles and strained connective tissue.

Long-term bed rest is not only no longer considered necessary for most cases of back pain, it is actually potentially harmful, making recovery

slower and potentially causing new problems. In most cases, you will be expected to start normal, nonstrenuous activity (such as walking) within 24 to 72 hours.

After that ask your doctor about controlled exercise or physical therapy. Physical therapy treatments may employ massage, ultrasound, whirlpool baths, controlled application of heat, and individually tailored exercise programs to help you regain full use of the back. Strengthening both the abdominal and back muscles helps stabilize the spine. You can help prevent further back injury by learning - and doing - gentle stretching exercises and proper lifting techniques, and maintaining good posture.

On the bright side, patients can take measures to prevent or lessen most back pain episodes. If prevention fails, simple home treatment and proper body mechanics will often heal your back within a few weeks and keep it functional for the long haul. Surgery is rarely needed to treat back pain.

Before treatment can begin for back pain, a doctor or other specialist will need to diagnose what's causing the pain.As well as a physical examination, and listening to a description of symptoms and pain triggers, blood and urine tests may be arranged to check for infections or other medical problems.X-rays are useful in pinpointing broken bones or other skeletal defects. They can sometimes help locate problems in connective tissue. To analyse soft-tissue damage computed tomography (CT) or magnetic resonance imaging (MRI) scans may be needed, and your doctor will usually refer you to a back specialist to have these done. X-rays and imaging studies may be used for examining direct trauma to the back, back pain with fever or nerve problems such as extremity weakness or numbness. To determine possible nerve or muscle damage an electromyogram (EMG) can be useful.

Medication

If back pain keeps you from carrying out normal daily activities, your doctor can help by recommending or prescribing pain medications. Over-the-counter painkillers such as aspirin, paracetamol, ibuprofen or low-dose codeine phophate and paracetamol combinations can be helpful. Your doctor may prescribe prescription strength anti-inflammatories/pain medicines or may prefer to prescribe a combination of opioid and paracetamol based medications such as higher-dosecodeine phosphate and paracetamol combinations or tramadol (with or without paracetamol). Some doctors also prescribe muscle relaxants. However the main effect of these medications is on the brain, not the muscles, and they often cause drowsiness.

Physical Therapy

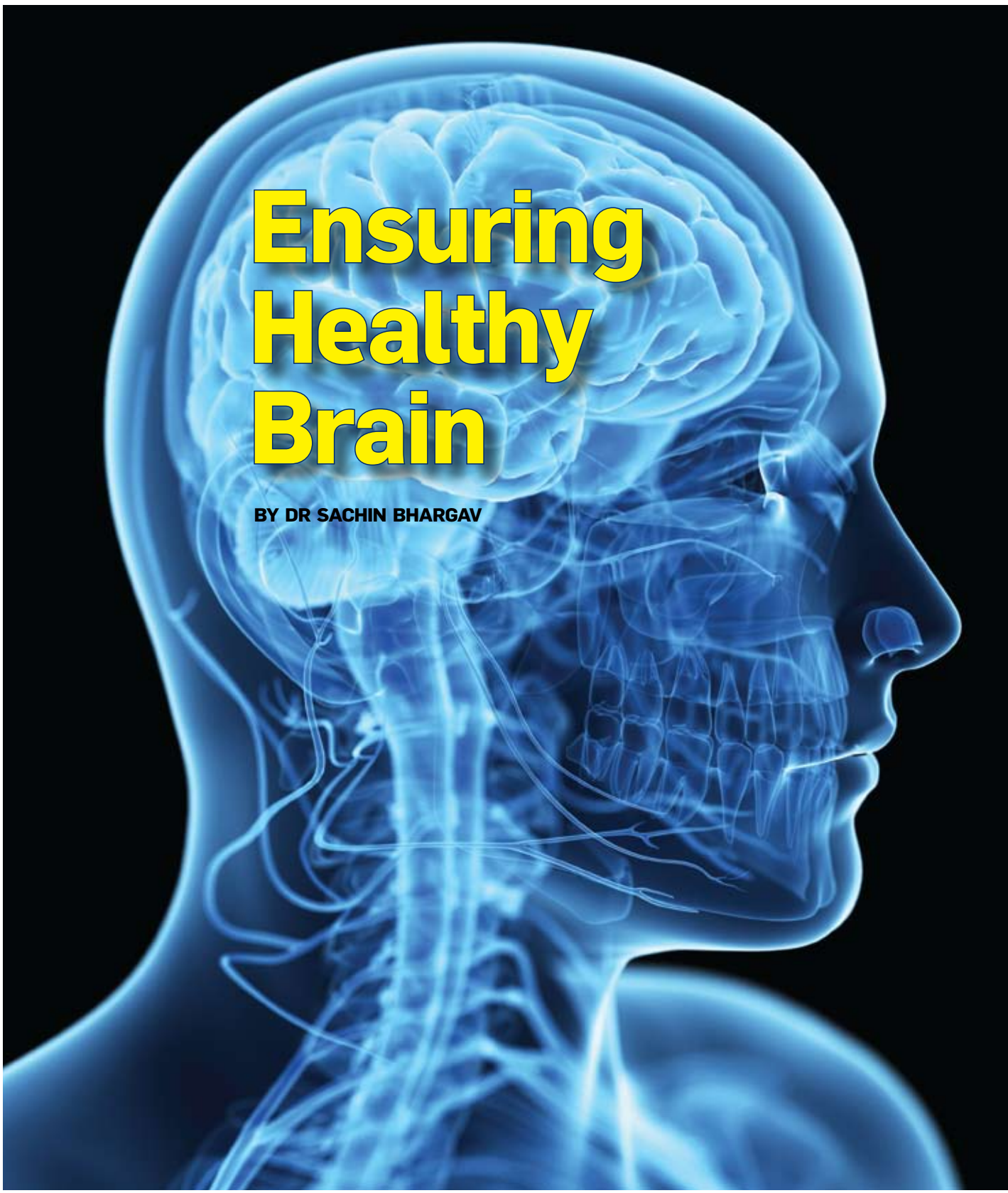
Most physical therapy programs that are designed to treat back pain and some radicular pain (pain radiating down the leg) will include a combination of the f exercise like stretching and dynamic stabilization exercises. The proper stretching of the muscles along with active exercise will help maintain normal range of motion and provide relief for muscles that are often suffering disuse atrophy (shrinking muscles from lack of use) or in spasm from inappropriate posture or nerve irritation. For many patients it is best to follow a stretching routine that has been individually designed for them by a physical therapist or a spine physician. As a general rule, low back pain patients should focus on stretching the lower back muscles, abdominal muscles, hips, and legs. The patient should never bounce during stretching, and all stretches should be slow and gradual.

Dynamic stabilization exercises involve the use of a variety of exercises and may include use of exercise balls, balancing machines or specific stabilizing exercises. The point of dynamic stabilization exercise is to strengthen the secondary muscles of the spine and help support the spine through various ranges of motion.

Low back exercises (hyperextensions), which can be performed on machines or by simply lying on the stomach and slowly raising the chest off the ground. This exercise utilizes the lower back muscles to 'hyperextend' the spine.

The Good-mornings are also an exercise to strengthen the lower back muscles. This exercise requires the patient to stand with legs straight and shoulder width apart, with a broom-stick or weighted bar across the shoulders. The patient then slowly bends forward until the face is parallel to the floor and then raises back up. Very similar to just bending to touch the toes except there is weight across the shoulders.

(The author is associated with Sir Ganga Ram Hospital, New Delhi)



Ensuring Healthy Brain

BY DR SACHIN BHARGAV

As with other NCDs, mental illnesses tend to be better recognised as societies develop and infectious disease burdens fall, so revealing other forms of distress. Communities typically become more able and willing to fund services for their most vulnerable members as they progress on from subsistence agriculture as their main means of production. With development, people become less likely to ascribe religious or other supernatural causes to psychiatric and psychological phenomena. Stigma gainst individuals living with mental illness – driven by combinations of ignorance, superstition, prejudice and excluding behaviours – also tends to decline as populations become better educated and physically and socially more secure.

Such trends increase rates of openly recognised anxiety, depression and psychotic distress, along with problems like learning disabilities. Due to factors associated with the transition processes presently in progress there are significant variances in the estimated incidence and prevalence rates for mental health problems in India. But a number of studies suggest that roughly six per cent of the current Indian population have significant mental illnesses. This implies that in the order of 70 million people could directly benefit from appropriate treatment and support. The global epidemiological evidence suggests that about twice that number are likely to be experiencing less serious emotional and allied problems like anxiety states at any one time, a burden which could also be relieved by more effective services.

One indicator of the scale of potential demand for mental health care is the fact that there are approaching 140,000 recorded suicides each year in India. Notwithstanding differences in population age structures, such data imply a rate at least equivalent to or above those recorded in post transitional societies like, for example, the UK and France. Some challenges, such as increases in the risk of suicide amongst poor Indian farmers, may on occasions have been exaggerated. But in international terms there is clear evidence that younger women are at particularly high risk of suicide and other forms of violent death in India.

Despite the fact that the country was in 1982 one of the first in the developing world to initiate a 'high level' National Mental Health Programme (NMHP - Sinha and Kaur, 2011), access to effective publicly funded mental health care remains very limited. In 1996 a District Mental Health Programme (DMHP) was launched under the umbrella of the NMHP. It was intended to focus on areas like early detection and treatment, rapid training for primary care doctors on the diagnosis and treatment of common mental illnesses, raising public awareness of mental health issues and monitoring trends in the occurrence of mental health problems. By the end of the ninth Five Year Plan the programme was established in 27 of India's 600 plus districts. Yet its overall impact has been judged disappointing (Patel et al., 2011).

In 2009 a revised NMHP was approved, partly in the face of a recognised national shortage of psychiatrists. With only one such medically qualified individual for every 500,000 people and one publicly funded psychiatric hospital bed for every 50,000 persons, India has amongst the lowest levels of medical psychiatric care provision in the world. Access to psychiatric nursing, clinical psychology and specialised psychiatric pharmaceutical care appears to be even more limited. The 2009 NMHP aimed to increase psychiatric 'manpower', upgrade mental health hospitals and de-stigmatise mental illness via interventions such as public advertising campaigns. Primary healthcare doctors working in villages were also to receive additional mental health training (Sinha, 2009; Sinha and Kaur, 2011).

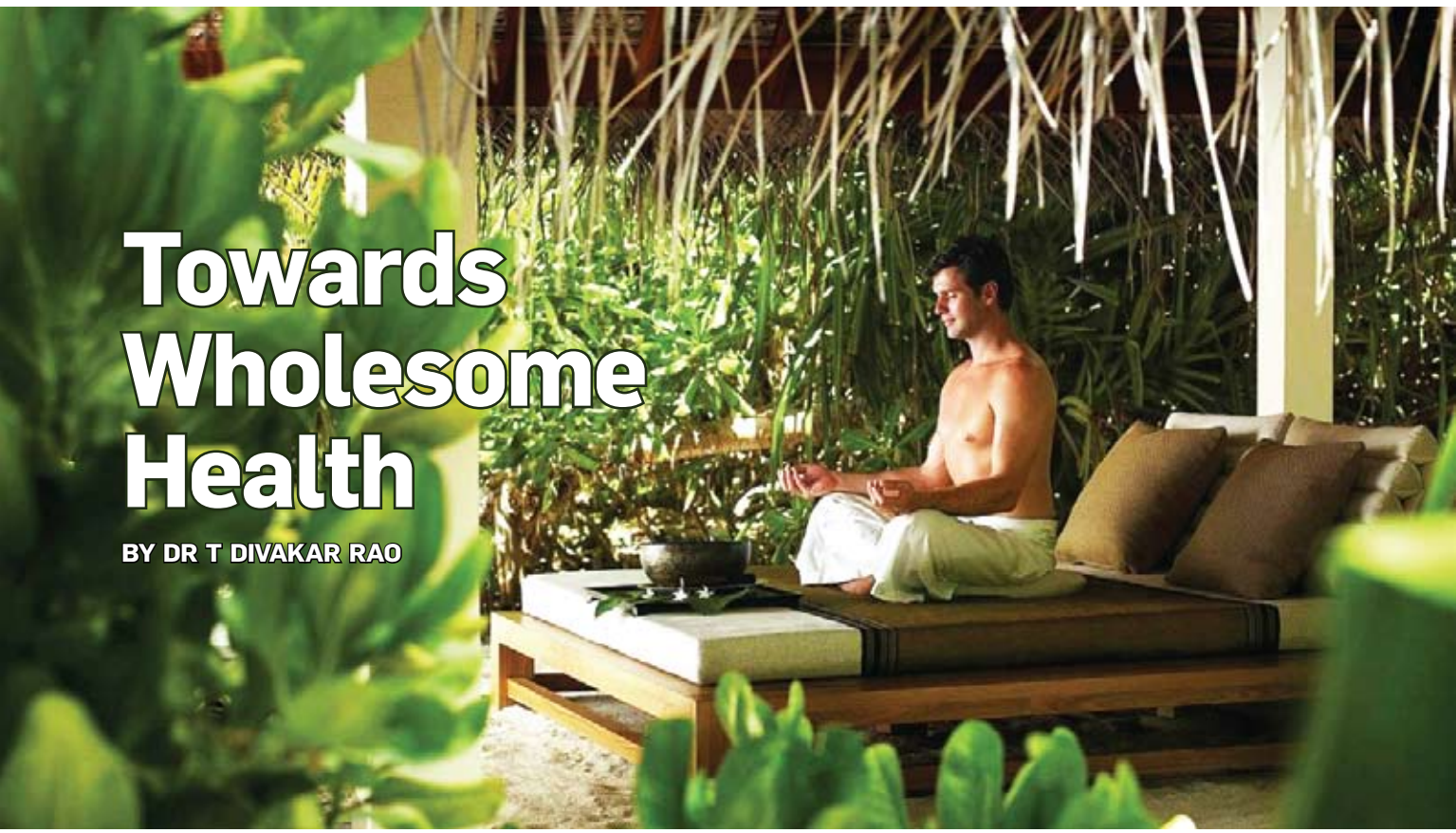
Such attempts to improve provision are to be welcomed, particularly when they can be backed by adequate financial investment. But there are clearly major challenges still to be overcome in this area of health and social care, and in developing appropriately sensitive local understandings of the cultural and allied social as well as the biomedical determinates of mental health in India (UCL Cultural Consultation Service, 2012). As suggested above, for example, the difficult situation for many women in India can exacerbate mental health problems (Basu, 2012). Members of marginalised populations such as Dalits (once termed 'untouchables') may also suffer particular forms of mental distress that might be relieved by appropriate forms of care and support, alongside wider social interventions.

Kerala, for example, spends three times as much on health per capita as Bihar, and has three times as many doctors relative to its population than less well off States like, for instance, Odisha and Chhattisgarh (De et al., 2012). The latter are disproportionately dependent on central Government finances for health care support, even though the per-person funding dispersed to the States is fairly constant, irrespective of their differing capabilities and needs (Balarajan et al., 2011).

Around 80 per cent of outpatient treatment is currently undertaken in the private sector, which can on occasions be both unreliable and expensive for vulnerable users. Because of the lack of health insurance some ten per cent of households devote ten per cent or more of their total expenditure to obtaining health care in any one year. About three per cent of the population are annually reduced to poverty because of health related expenses.

Relatively recent data indicate that rural India, with two thirds of the nation's total population, has only a little over ten percent of the hospital beds and a quarter of the human health resources available in the country as a whole.

(The author is Senior Child Specialist,
SPARSH Society)



Towards Wholesome Health

BY DR T DIVAKAR RAO

Everybody wants to have good health. It can only be obtained when your habits and preferences suit your bodily functions. The ancient system called Ayurveda has got an answer to it. Maintaining good health and treatment of disease are two sides of the same coin. The food, drugs and regimen that Ayurveda prescribe for both are similar. The components are the same; they are all found in nature. Equal importance is given to the kind of food to be taken as to the drugs prescribed. Each reinforces the other and both act in similar ways to maintain the equilibrium of the doshas (humors) in the body. Before going into the details, let's know little bit about the basics of Ayurveda

"Ayusho vedah ayurvedah" which describes the science of life better known as Ayurveda is one of the oldest surviving systems of medicine known to mankind which is based on two basic fundamentals of treating an individual.

1. "Swastasya swastya rakshanam" which means to restore healthy individuals health so that he cannot be ill due to climate change , change of place and change of circumstances
2. "Aturasya vikara prasamanam" and to treat or cure the diseases of patients

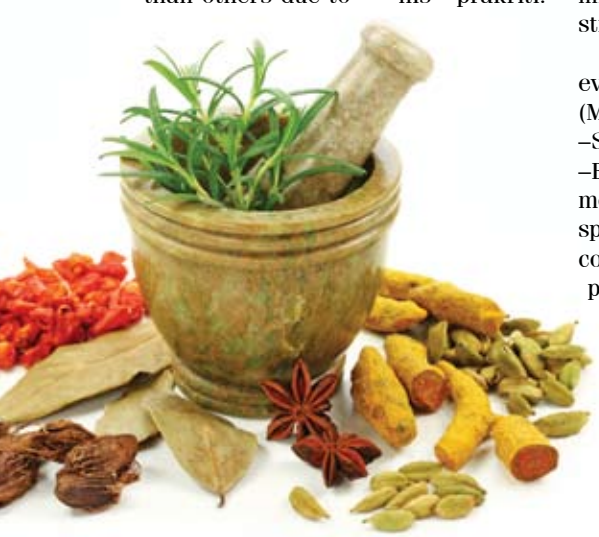
To achieve this, Ayurveda has emphasized in classics like Charak Samhita Susruta samhita and Ashtang Hriday that one can only stay healthy throughout the life if he could follow specific food habits, proper exercise and proper sleep. It looks very easy to follow but everybody is busy in this world due to fast paced life and one gives least importance to healthy and timely food, a bit of exercise and proper sleep.

A dosha according to Ayurveda, is one of three bodily humors that make up one's constitution known as vaata pitta and kapha dominated constitution. Each individual in this whole world is more or less is a mix of these humors. Ayurvedic philosophy maintains that people are born with a specific constitution, which is called the prakriti.

The prakriti, established at conception, is viewed as a unique combination of physical and psychological characteristics that affect the way each person functions. Throughout life, an individual's underlying prakriti remains the same. However, one's prakriti is constantly influenced by various internal, external and environmental factors like day and night, seasonal changes, diet, lifestyle choices, and more.

Ayurveda places great emphasis on prevention of illness, and recommends maintaining health through following daily and seasonal regimens which create balance. Ayurveda teaches that three qualities, called doshas, form

important characteristics of the prakriti, or constitution. As mentioned earlier these doshas are called vata, pitta, and kapha, and they all have a specific impact on bodily functions. Adherents of Ayurvedic medicine believe that each person has an individual, "tailored" balance of the three doshas. Individual doshas are constantly "in flux," and are influenced by eating, exercising, and relating to others. Ayurvedic adherents believe that dosha imbalance produces symptoms that are related to that dosha and are different from symptoms of another dosha imbalance. (For example, if the aggressive and "hot" pitta-prominent person aggravates pitta, he/she may develop prickly rash or an acidic stomach.) Many factors can cause imbalance, including a poor diet, too much or too little physical or mental exertion, chemicals, or germs. Generally and predominantly one of the above mentioned humors reflects its physiological characters on human body and mind like physical appearance habits and preferences sleep pattern intellectual levels and thinking ability. So it is very much important for the treating physician to know the body composition of a person in respect of dosha (humor) to advise him what do follow and what not, the same applies to the individual too. One must know his prakriti/dosha to know more about his body. For example if a vaata predominant person consumes cold drinks and foods which are cool in nature.. He is bound to get cough and cold quickly than others. If a Pitta predominant person, scolds somebody, his anger will be accentuated in less time than others due to his prakriti. Like that if a kapha predominant person eats more food, he is bound to gain weight faster than other prakriti persons.



Ayurveda mainly emphasizes on certain principles which are to be followed to attain good health. First and foremost is to get up early in the morning which rejuvenates senses and prepares your body to get acclimatize to the tasks ahead for the whole day it's like getting right momentum. Everyone feels lethargy if they go to bed l¬¬ate and also wakes up late. The reason behind this phenomenon is, our body has a biological clock if we tend to disrupt it more often, and we may face more problems in future. The body a chance to harmonize with the rhythms of the sun. Sunrise varies according to the seasons, rising earlier in the summer and later in winter, but on average vata people should get up around 6 AM, pitta people around 5:30 AM, and kapha around 4:30 AM. Drink a glass of warm water. This will clean the digestive tract and encourage the regular morning bowel movement. Evacuate the bowels and bladder, if you can (without forcing!) Brush your teeth at least in the morning and before going to bed (after meals is also beneficial if possible).Scrape your tongue daily (only AM), back to front 5-10 times to stimulate the digestive system and aide the removal of toxins (ama). Massage the body with oil that is balanced for your constitution (in general sesame is good for vata, coconut for pitta, and corn for kapha; kaphas don't need much oil and can skip this step). Leave the oil on for at least 20 minutes. Meditate and practice the constitutionally correct Yoga Poses

The food we consume should contain every rasa a bit. six types of tastes (Madhura-Sweet, Amla-Sour Lavana –Salty, Katu -Pungent or Spicy, Tikta –Bitter and Kashaya-Astringent) are mentioned in Ayurevda. Foods contain specific tastes should be consumed according to dosha. Vaata predominant person should eat foods contain Madhura , Amla and Lavana Rasa, Pitta predominant person should eat tikta madhura kashaya and kapha predominant person should eat katu tikta kashaya food.

For example, for Vata, warm soup is a better choice than an ice cold salad (Vata gets balanced with warm quality and aggravated with cold). When eating out, stay away from raw, cold foods and focus on well cooked, warm dishes. On the other hand, if you have a predominant Pitta dosha, you will do much better with raw food and often salad bars, as well as vegetarian dishes, are great option for you. Stay away from deep fried, garlicky and tomato dishes (anything hot/spicy aggravates Pitta). If Kapha is your dominant dosha, you will do best with light choices, lightly steamed/cooked veggies, as well as light vegetarian dishes, are a great choice for you. Stay away from dishes that are heavy/oily, with lots of cheese, sour cream and that are fried.

If possible, practice meditation and yoga for a half an hour each in the morning before eating breakfast. Shower or bathe. Eat your breakfast (never skip breakfast; even the name suggests that it's the 'the break of the fast' and therefore very important). Take a short (½ hr) walk after breakfast, if possible. Walking after meals stimulates digestion. Eat your lunch, which should be the biggest meal of the day, between 12-1PM. Take a short walk afterward (can be only about 1,000 steps). Eat dinner before the sun goes down, which is later in the summer and earlier in winter. In general by 7PM is a good habit. Another short walk after your meal is beneficial (1,000 steps or more). Floss once per day (best at night) to prevent gum disease. Ayurvedic gum powders can be massaged into the gums as well. Go to bed between 9:30-10:30 PM to insure adequate rest. Do not eat, read or watch TV in bed. Once a week, clean out your nasal passages with slightly salted water using a cup or a neti pot (should be as salty as your tears; general guideline is ½ tsp salt per ½ cup water). Then place a drop of oil (can be the same as your body oil) in each nostril with the tip of the little finger. This maximizes the absorption of Prana, the life force.

(The author is CMO, CGHS, Hospital, New Delhi)

Safeguarding **Your child**

BY DR H P SINGH

A will is a document that specifies who will inherit your bank accounts, real estate, jewelry, cars, and other property after you die. You can leave everything to one person or divvy it up in small, specific portions, such as your CD collection to your brother or your sweaters to your best friend. But a will is much more than a means of distributing your property when you're gone especially if you have kids.

For parents, making a will is the

single most important thing you can do to make sure your child is cared for by the people you would choose if anything should happen to you. In your will you candesignate a person (guardian) to care for your children if you die before they become legal adults. And you can designate a property guardian or trustee to manage your money for your children until they reach adulthood. You can appoint one person to act as both personal and property guardian, or choose two people to carry out the separate roles.

If you'd like to help streamline the wrap-up of your affairs after you're gone, you can name an executor. An executor pays your debts and taxes and then makes sure the rest of your estate goes to the people you've chosen. There are many other things you can use a will for, including these: To make charitable contributions; to donate organs; to specify funeral arrangements; and to state your preferences about life support by creating a living will, healthcare directive, or directive to physicians as a separate document.

The certain assets such as life insurance policies, 401(k)s, and IRA accounts have beneficiary forms that trump wills. That means the funds in these accounts are distributed to whomever you named as beneficiaries, no matter what you specify in your will. Be sure to check the beneficiaries on these accounts and make any changes to align with your will.

Without a will, there's no guarantee that when you die your money will go to the people you want or that your children will be cared for by the person you believe will do the best job. This may come as a shock, but if you die without a valid will, state laws require that your property be divided according to a fairly inflexible formula. In most states your spouse, if you have one, would receive only about one-third to one-half of your estate. The rest would be earmarked for your children.

Sounds fine, but without a will, in some states a state-appointed administrator (who charges fees for the service) would control your children's money until each child turned 18. That means your spouse wouldn't be able to access the money to help raise your children without going through a very complicated legal procedure. And even if the courts decided that your spouse could hold the funds earmarked for your children in trust, he or she would have to supply the court with an accounting of how the money is used each year.

Moreover, if you and your partner both died without a will, the state courts and social services department would appoint someone to raise your children. And that person might have very different ideas about parenting than you do. Even if you think you have almost no property to leave your children, it's worth making a will to make sure you get to choose their guardian.

Nurturing your toddler

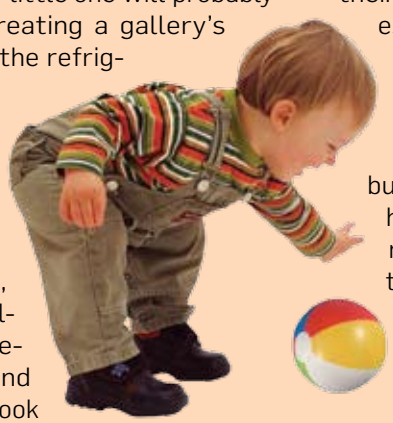
Your child's early attempts at writing certainly won't look much like words and sentences, but the way he scribbles lines, and drawings all help him get ready to learn his ABCs and perhaps someday produce the next great American novel.

Your toddler's scribbles will start taking discernible shape now, though he doesn't yet form letters and numbers he can't hold a writing implement steadily enough yet for that. But he's become enthralled by anything he can draw with crayons, pens, and colored pencils. Beware; this is prime time for crayon scribbles on the wall. And he's probably starting to spend longer on each individual drawing now, covering more of the paper rather than making a single swirl. Draw a single line and he can easily imitate it, though it may not be very straight.

Many children are able to grasp a crayon and shove it around on a piece of paper when they're about 12 or 13 months old. Their writing and drawing skills improve in tiny incremental steps throughout the toddler years until they're able to draw recognizable pictures and, eventually, put a few letters down on paper.

Over the last several months of his first year, your child's fine motor skills improved steadily. Now he's physically ready to grab hold of a crayon and start experimenting. At 12 or 13 months, some toddlers are already able to scribble vigorously, while others start tentatively (they'll drag a crayon around on paper, scrawling inadvertently). If yours takes longer, that's fine, too. children develop at different rates, some faster than others. By around 16 months, your little one will probably be a scribbling pro, creating a gallery's worth of drawings for the refrigerator.

At about 29 or 30 months, your child moves from mere scribbles to true art; he's more interested in coloring and painting, and he starts adding colors and trying to represent real objects and things. A drawing may look to you like a solid mass of green ink, but ask him and he'll tell you it's a snake in the jungle. He may also start attempting to incorporate language into his drawings; look closely at a painting and you may see that the larger scribbles are figures, while the chicken scratches are attempts at letters or words. He may also start signing his pictures, though the letters won't look like any alphabet you recognize.



By the time he's 2 and a half, your child will be able to hold a thick pencil or crayon solidly in a writing position. This age is usually able to master the up-and-down movement required to make a "V," which is a little trickier and requires more dexterity than making a straight line. Between now and his third birthday your toddler will also start making circular strokes, and some will be able to write a few letters — or squiggles that look an awful lot like letters.

A few will start writing their first name or a few letters of it around or just past their third birthday. Many don't, though, and that's okay. Don't feel pressured to push your child to learn to write; wait until he's really interested and excited about it. Writing is a developmental skill that does not have a formal timetable; your toddler can take his time and still be developmentally on track. Slow and steady may well win this race: A child who is just learning to write his letters in kindergarten may well have lovely penmanship by second grade.

As preschoolers get more adept at using crayons and pencils, they'll start making more elaborate and accurate drawings. Most will be able to write their first name before they enter kindergarten, especially if they've been learning the alphabet in daycare or preschool. Sometime before his fifth birthday, your child will learn to make horizontal lines, to copy a circle and a square, and to draw people.All children are different, but if yours hasn't started scribbling by the time he's about 15 or 16 months old, bring it up the next time you see his pediatrician. Keep in mind, though, that premature babies may reach this and other milestones later than their peers.

(The author is senior child specialist, Mother Child Care, Vaishali,Ghaziabad)

National Round-up

Preference for the boy child dominates the mind space

According to a report preference for the boy child dominates the mind space of men and women in states like Haryana, Punjab and Uttar Pradesh, marked already by sex ratios severely skewed against the baby girl.

Key results from the study show that a majority of the men (67%) and women (47%) professed an equal desire for a male or female child. It is, however, pointed out that this included the desire to have at least one son--they just wanted to have an equal number of sons and daughters.

Of those who expressed a preference for one sex over another, almost four times as many parents desired more sons than daughters. "Men and women who wanted more sons were typically older, less literate, poorer and more likely to live in rural settings," it was stated. It is pointed out that at older ages preferences may be more entrenched as they get further layered by social expectations.

Nearly a third of men and women surveyed across these and four other states have come forward to share their belief that sex selection should be permissible for couples without a son. Worse still was that nearly half of those surveyed had no clue about the existence of the Pre-Conception and Pre Natal Diagnostic Techniques Act (PCPNDT) 2003.

The findings form part of a study titled Masculinity , Intimate Partner Violence & Son Preference In India. The United Nations Population Fund (UNFPA-India) and International Centre for Research on Women (ICRW) study was released as part of the second Men Engage Global Symposium that started in Delhi.. Setting the pitch for the four-day symposium, PhumzileMiamboNgcuka, executive director, UN Women, stressed that "engaging men and boys is a must" for "advancing women's rights and equality".

The UNFPA-ICRW study is based on a survey of 9,205 men and 3,158 women, aged 18-49 years in seven states--Uttar Pradesh, Rajasthan, Punjab and Haryana, Odisha, Madhya Pradesh and Maharashtra.These states were chosen because of their large population sizes, diverse demographic compositions and varying sex ratio trends, an indicator of son preference.

A report says that an overwhelming majority of men and women considered it very important to have at least one son in their family. In fact, more women (81%) than men (76%) felt so. Finally, almost half the men and women were unaware of PCPNDT law which prohibits sex determination for non-medical reasons.

Regional Round-up

An attempt to health awareness among schoot students

An attempt to health awareness among schoot students SPARSH (Society for Promoting Awareness Regarding School & Health) in association with Indian Medical Association West Ghaziabad branch recently organised 2nd Sparsh Inter-school Health Quiz at Sun Valley International School ,Vaishali.

Over 14000 students from 34 schools were participated to promote healthy practices in school students and to sensitize them to health related information and current issues.

St. Teresa School, Indirapuram students won the Trophy and Seth Anand Ram Jaipuria School Vasundhara was runner up. The students also organized an exhibition on different topics covering prevention of common diseases and life style related problems. A drawing and painting competition was also arranged to make little kids understand the importance of good health.

A health programme on active lifestyle

SPARSH society, Mission Healthy self and Inderdhanush Social welfare association recently organized GOAL on active lifestyle program at Vaishali (Ghaziabad).

This program encourages general public to adopt active lifestyle to remain fit. There were multiple activities for all age groups to choose as per their choice like Yoga, Zumba , Aerobics, Cycling, Skating, Skipping, Bad minton, foot-ball, basket ball, running etc.

Dr. Sachin Bhargava, SPARSH Society, informed, "Now a day's most of us find it difficult to spare time for regular exercise due to fast running life but this practice is going to affect our health adversely."

The GOAL is an attempt to motivate general public to devote some time for fun and sports which will improve their health as well. The GOAL organizes on every 2nd and 4th Sunday of month from 7 to 9 am. Next Goal will be held on Sunday December, 14th, 2014. The program was attended by a large no. of local residents, school children and senior citizens. Dr. Gaurav Mittal , Dr. Namit Varshney, Dr. Sonam Gupta, Dr. Vipul Tyagi, Mrs. Archana, Mahendra, Pradeep Uniyal, Tarun Jain were some of prominent persons present today

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