

A unique mobile eye care initiative for the diabetics

DR TAREQ SALAHUDDIN, back from Bangalore, India

Nayana (means eye) is the name of a unique mobile eye care initiative for diabetic patients supported by the World Diabetes Foundation — run by Dr Krishna R Murthy, Dr Praveen R Murthy, Dr K R Murthy and Subbakrishna Rao and a Joint Project of The Vittala International Institute of Ophthalmology, Prabha Eye Clinic and Research Center and The National Association for the Blind of Karnataka state of Bangalore in India. In fact, this is a great boon for the rural people living with diabetes retinopathy and its complications.

This unique mobile eye care initiative for diabetics is dedicated by the tireless efforts of 83 ophthalmologists, 225 physicians, 19 surgeons, 6 VR fellows and 9 mobile unit staffs who believe a difference can be made.

The diabetic retinopathy dilemma

The treatment of diabetic retinopathy and its complications are usually run in urban centric care models. High patient drop outs are prevalent due to the cost and various socio economic factors. Camp based detection rates are high, but dropouts are also high which makes almost no difference when people do not or cannot avail further treatment facilities.

Expensive equipment, lack of manpower to handle

them, inadequate number of trained physicians to provide skilled eye care are common reasons that promote the situation. Under this circumstance, the nature of the condition needs holistic and sustained care approach through a viable economic model. Moreover, when providing eye care for the poor, the main focus projects on cataract blindness. Diabetic retinopathy draws less attention of the ophthalmologists although a large number of populations have been suffering from the problem.

It is a matter of great concern that diabetes is a silent epidemic and the number of patients is escalating day by day. The increasing number of diabetes mellitus cases poses major health care challenges. Diabetes is also the leading cause of blindness worldwide.

Innovation in eye care for the diabetics in rural setup

To overcome these barriers, an innovative van was designed all aluminum with special suspension with the help of Vortex Engineering and IIT Chennai. It contains special carry cases for equipment from Germany and Korea with provision of tele medicine link with DICOM 2 compatibility.

The van is equipped with modern and up to date instruments to offer advanced eye care to the rural people. The range of treatment facilities include



from routine eye examination, funduscopy to angiogram of the ocular vessels, laser treatment and telemedicine.

The start of the project

Three years ago when the van was first introduced in this area, retinopathy treatment was only been available at certain urban hospitals. This means travelling 200-300 Km to access such care, resulting in huge barrier for people who live in rural areas and semi-urban areas. However, now Karnataka has achieved impressive results after introducing a unique to bring the treatment out to the patients.

Every month the van visits 23 locations across 13 districts catering to the needs of 18.31 million people. These locations consist of 8 eye hospitals/eye departments of larger

hospitals, 3 Government hospitals and 11 other clinics.

"We have completed 375 field days. We see an average of 33-34 patients per location. This is the only van in India which is providing these kinds of facilities for the prevention and treatment of diabetes retinopathy", said Dr. Shivaram, a senior ophthalmologist and coordinator of this mobile eye care van, based in Yalundar, Karnataka. He further said, "After the introduction of this van, 80 per cent of the people living with diabetes in rural areas have started getting treatment of diabetic retinopathy."

Nayana is thus rekindling the light in many eyes, which would otherwise have become sightless.

Other aspects

People living with diabetes in

this area have made a Diabetes Forum. This forum organises periodical meetings to address the problem of diabetes. Mr. Mahadev Appa, a patient of diabetes retinopathy and retired government employee, said, "I had been suffering from diabetes for the last 20 years. However, I had no idea about diabetes retinopathy till 2 years back when this van came to my village, B.R. Hills. Then I got myself checked and was diagnosed with diabetes retinopathy. I immediately started taking treatment and today my retinopathy problem is gone." His 24 years old daughter Gayatri feels that her father has got a new lease of life.

Main goals of the project

The main objective of the project include to leverage the trained manpower already available in many locations of

Karnataka, reducing the cost of diabetic retinopathy treatment, to increase compliance rates among patients for treatment, to provide diagnosis, treatment and management within a distance of 50 km of the patients' residence, to improve clinical practice levels to global and uniform standards, to make the project sustainable; earn enough money to run itself, research and analysis, patient education.

The motto is — no patient shall go blind from diabetes for want of treatment or money in the project areas. In fact, this serves as a holistic approach of training of ophthalmologists.

Could Nayana be replicated?

Nayana has brought the eye care services especially for the diabetics to the doorsteps of the people who need it the most reducing the chance of drop outs. Along with providing the treatment, it has made people aware that they need the service, educated the patients and helped to develop a new insight among them. This model is very much needful in the context of any third world country. The people who run the project believe that this could be replicated anywhere.

There are people to help, finance and support if we can develop a sustainable model in our area of service. It is time to roll up our sleeves and work for the diabetics to help them see this beautiful world.

MEDICAL UPDATE

Baby girl born from full ovary transplant

REUTERS, Boston

Doctors in St. Louis said they have successfully transplanted a full ovary from a volunteer, allowing her infertile twin sister to give birth to a healthy baby girl on November 11, 2008.

It is the first time an entire ovary has been transplanted and resulted in a live birth, the researchers said.

Writing in the New England Journal of Medicine, they said the method may offer a way to preserve fertility for cancer patients or for women who want to wait until they are older to start families.

One twin went into early menopause at age 15, but the transplanted ovary from her sister restored full fertility and she gave birth at the age of 38, Dr. Sherman Silber of the Infertility Center of St. Louis and his colleagues reported.

Previously they had transplanted the outer shell of the ovary and found that, even if the tissue is frozen, it can restore fertility.

Although six babies were born to eight women using those techniques, about two-thirds of the eggs die from lack of blood flowing through the tissue, and the women quickly slip into menopause after about three years.

Hoping to avoid those

problems, the Silber team used a full ovary and reconnected two veins and one artery to feed the graft, which is a challenge because the blood vessels are so tiny.

Silber said although the work has involved identical twins where one had become prematurely infertile, the technique could eventually benefit two groups of women if frozen ovaries turn out to be viable.

"One is the young cancer patient who is about to lose all her ovarian function as she's about to undergo chemotherapy. We just take that ovary out, freeze it and transplant it back. That's one big payoff," he said in a telephone interview.

The other, he acknowledged, is more controversial: extending the time a woman is fertile.

Women in their 20s could have one of their two ovaries removed so it can be frozen. "If she's 40 or 45 when she has it transplanted back, it's still a 25- or 30-year-old ovary, so she's preserving her fertility," he said. "We've actually done it for quite a few patients. I think there will be many more women who will want to do that."

The infertility rate at age 25 is only about 6 percent. It jumps to 70 percent by age 40 and is about 95 percent at age 43, said Silber.



DID YOU KNOW?

Alcoholism increases osteoporosis risk in young men

Brittle bones are a known consequence of alcoholism, and now new findings suggest that even young men are at risk of developing low bone mass. Surprisingly, a similar risk was not seen in their female counterparts.

In a study of 57 alcoholic adults between the ages of 27 and 50, researchers found that one quarter of the men had lower than normal bone mass. Just 1 of the 20 women the researchers examined had a deficit in bone mass.

The latter finding, the researchers speculate, might be explained by the women's relatively high estrogen levels that, for the time being, may have protected their bone mass.

In contrast, men had no such hormonal protection and, like their female counterparts, showed high deficiency rates of vitamin D, which is important in maintaining bone mass.

The findings suggest that even young alcoholic patients should have their bone mass and bone metabolism screened, the researchers report in the journal *Alcoholism: Clinical and Experimental Research*.

"The fact that even relatively healthy young male

alcoholics — without any kind of liver disease — show low bone mineral density is an important finding," lead researcher Dr. Peter Malik of the Medical University Innsbruck, told.

It is thought that alcoholism leads to bone thinning, in part, because of toxic effects on the body's bone-forming cells. However, indirect effects may be at work as well; alcoholics often have poor diets and little exercise, both of which can drain bone density.

Malik pointed out that in this study, bone density was not related to the duration of patients' alcohol dependency or to the amount of alcohol they had consumed before going into treatment.

This finding suggests that alcoholic patients' lifestyle habits may indeed contribute to waning bone density.

It is not clear whether bone density improves if the alcoholics are able to stop drinking, Malik said, as few studies have followed young recovering alcoholics' bone health over time. He and his colleagues now plan to study that question.

Source: *Alcoholism: Clinical and Experimental Research*



Secondhand smoke also causes fertility problems

REUTERS, Washington

Women who breathed in secondhand smoke as children or young adults were later more likely to have trouble getting pregnant and suffer more miscarriages than women not exposed to smoke, U.S. researchers reported.

They said toxins in the smoke could have permanently damaged the women's bodies, causing the later problems, and said their finding support restrictions on smoking.

Luke Peppone at the University of Rochester in New York, Dr. Kenneth Piazza of the Roswell Park Cancer Institute in Buffalo, New York, and colleagues studied 4,800 women treated at Roswell Park.

They were asked to give details of all pregnancies, attempts to get pregnant, and miscarriages, as well as their history of smoking and breathing secondhand smoke.

Overall, 11 percent of the women reported difficulty becoming pregnant, and about a third lost one or more babies, the researchers wrote in the journal *Tobacco Control*.

"Forty percent reported

any prenatal pregnancy difficulty (fetal loss and/or difficulty becoming pregnant)," they said.

Women who remembered their parents smoking around them were 26 percent more likely to have had difficulty becoming pregnant and women exposed to any secondhand smoke were 39 percent more likely to have had a miscarriage, Peppone's team reported.

Four out of five of the women reported exposure to secondhand smoke during their lifetimes and half grew up in a home with smoking parents.

Other studies have linked smoking with miscarriage, birth defects and sudden infant death syndrome, also known as cot death or crib death.

"The effects of tobacco usage and exposure on pregnancy outcomes remain a public health priority," they said.

It is possible that secondhand smoke interferes with normal hormone action involved in fertility and pregnancy, the researchers said. It can also affect the woman's cervix, the opening in the uterus through which sperm passes to fertilise the egg.

INTERVIEW

Latest palliative care options for gastrointestinal diseases

STAR HEALTH CORRESPONDENT

A leading specialist and senior consultant in gastroenterology, liver diseases from Mount Elizabeth Hospital, Singapore Dr Yap Chin Kong recently visited Bangladesh. During his visit he shared his views on recent advances in the diagnosis and treatment of different gastrointestinal diseases.

Dr Yap talked about the common problems like irritable bowel syndrome (IBS) and constipation where he highlighted the healthy eating for proper nutrition, balance diet. He also shed lights on how one can prevent gastrointestinal diseases like gastritis, ulcers and so on.

Irritable bowel syndrome (IBS) is one of the most common disorders that doctors see. Yet it is also one that many people are not comfortable talking about because the signs and symptoms may be embarrassing.

Doctors are not sure what causes IBS. The nerves and muscles in the bowel appear to be extra sensitive in people with IBS. Muscles may contract too much when you eat. These contractions can cause cramping and diarrhoea during or shortly after a meal. Or the nerves may react when the bowel stretches, causing cramping or pain.

Most people with IBS find signs and symptoms improve as they learn to control the condition. Most people can control their symptoms with diet, stress management, and prescribed medications. For some people, however, IBS can be disabling. They may be unable to work, attend social events, or even travel short distances.

It occurs more often in women than in men, and it begins before the age of 35 in about 50 percent of people. Abdominal pain, bloating and discomfort are the main symptoms of IBS. However, symptoms can vary from person to person. Some people have constipation, which means hard, difficult-to-pass, or infrequent bowel movements. Researchers have yet to discover any specific cause for IBS.

One theory is that people who suffer from IBS have a colon, or large intestine, that is particularly sensitive and reactive to certain foods and stress. The immune system, which fights infection, may also be involved.

Stress — feeling mentally or emotionally tense, troubled, angry, or overwhelmed — can stimulate colon spasms in people with IBS. The colon has many nerves that connect it to the brain. Like the heart and the lungs, the colon is partly controlled by the autonomic nervous system, which responds to stress. Stress makes the mind more aware of the sensations that arise in the colon, making the person perceive these sensations as unpleasant.

Some evidence suggests that IBS is affected by the immune system, which fights infection in the body. The immune system is affected by stress. For all these reasons, stress management is an important part of treatment for IBS.

Constipation is a common digestive system problem in which you have infrequent bowel movements, pass hard stools, or strain during bowel movements. Constipation is defined as having a bowel movement fewer than three times per week. With constipation stools are usually hard, dry, small in size, and difficult to eliminate. Some people who are constipated find it painful to have a bowel movement and often experience straining, bloating and the sensation of a full bowel.

Constipation is a symptom, not a disease. Almost everyone experiences constipation at some point in their life, and a poor diet typically is the cause.



Dr Yap Chin Kong

Most constipation is temporary and not serious. Understanding its causes, prevention, and treatment will help most people find relief. Fortunately, a few common-sense lifestyle changes, including getting more exercise, eating high-fiber foods and drinking plenty of water, can go a long way toward preventing or alleviating constipation.

A number of factors can cause an intestinal slowdown, including: Inadequate fluid intake, a low-fiber diet, inattention to bowel habits, age, lack of physical activity, some medications, changes in life or routine such as pregnancy, aging, and travel etc. Changes in your lifestyle may be the safest way to manage constipation.

To help ease symptoms, trying using a fiber supplement, such as oat bran, Metamucil, Konsyl or Citrucel. These natural supplements help make stools softer and are safe to use every day. Drinking plenty of water or other fluids

every day is another great way. Otherwise, fiber supplements can actually make your constipation worse. And add fiber to your diet slowly to avoid problems with gas. Most people who are mildly constipated do not need laxatives.

However, for those who have made diet and lifestyle changes and are still constipated, a doctor may recommend laxatives or enemas for a limited time.

Gastritis is not a single disease, but several different conditions that all have inflammation of the stomach lining. Gastritis can be caused by drinking too much alcohol, prolonged use of nonsteroidal anti-inflammatory drugs (NSAIDs) such as aspirin or ibuprofen or infection with bacteria such as *Helicobacter pylori* (H. Pylori).

Gastritis may occur suddenly (acute gastritis), or it can occur slowly over time (chronic gastritis). In spite of the many conditions associated with gastritis, the signs and symptoms of the disease are very similar: a burning pain in your upper abdomen and, occasionally, bloating, belching, nausea or vomiting.

In some cases, gastritis can lead to ulcers and an increased risk of stomach cancer. For most people, however, gastritis is not serious and improves quickly with treatment. Treatment usually involves taking drugs to reduce stomach acid and thereby help relieve symptoms and promote healing. (Stomach acid irritates the inflamed tissue in the stomach.)

Avoidance of certain foods, beverages, or medicines may also be recommended. If your gastritis is caused by an infection, that problem may be treated as well. For example, the doctor might prescribe antibiotics to clear up H. pylori infection. Once the underlying problem disappears, the gastritis usually does too.

Latest palliative care options for gastrointestinal diseases

Dr Yap showed the recent advancement in the high quality imaging facilities by endoscopic ultrasound by which cancer cells are more accurately detectable. Dr Yap revealed the esophageal stenting technique for the terminally ill patients suffering from the cancer of food tube.

Dr Yap told that the main purpose of stenting is to provide palliative care to the patients and improving their quality of life at the end stage of the disease. This can eventually increase the longevity of life and relief the severe discomforts. It mainly relieves from the cancer of esophagus which obstructs the passage of food.

The stent is also being used relieving other obstacles like biliary stricture, pancreatic duct obstruction.