

Press Release

Hon'ble Governor of Tamil Nadu Thiru. Banwarilal Purohit Inaugurated Robotic Cataract Surgery System of Rajan Eye Care Hosiptal

Hon'ble Governor of Tamil Nadu Thiru. Banwarilal Purohit inaugurate the state of the art Robotic Cataract Surgery System.

Man is endowed with the five senses of vision, smell, touch, hearing and taste. It is estimated that 80% of the inputs to the sensory system of a human being is through eyesight. This is increasing day by day particularly with the discovery of appliances such as Television, Computer, and Cell Phones.

For most people, it is a matter of course that when they open their eyes, they see the world. But we must understand that there is a complex process by which the eyes function.

When you see an object or read a magazine, the light rays reflecting off the object penetrate our eyes and first strike the Cornea. After the Cornea, the rays traverse the anterior eye chamber and pupil in the iris. The iris actually determines the colour of the eye. The anterior chamber is filled with the fluid which nourishes the Cornea and the lens of the eyes. A ventilation system drains out the excess fluid. The iris dilates or shrinks the pupil regulating the quantum of light rays penetrating the eye. The rays then go through the lens of the eye, which is enveloped by the ciliary muscles which regulate the curvature of the lens. After passing through the lens, the light rays strike the Retina which has photo receptors numbering more than 100 million. The information from the Retina is relayed to the vision centre of the brain, through the optic nerve. It is, thus that we see an object or a picture. As you can all see the process of vision is a complex one. Even if one of the components in the process is affected, vision is impaired.

The eye diseases that are well known to the common public are

- 1) Cataract, 2) Myopia and Hypermetropia,
- 3) Diabetic Retinopathy, 4) Glaucoma and
- 5) Corneal Blindness.

Of these cataract accounts for half of the blindness and 33% of the visual impairments worldwide.

Cataract is the clouding of the lens in the eye leading to poor vision. Cataracts are most commonly due to aging but may also occur due to trauma or radiation exposure. Risk factors include diabetes, smoking tobacco, prolonged exposure to sunlight and alcohol. Surgery to remove the cloudy lens and replace it with an artificial lens is the only effective treatment for treating cataract.

About 20 million people are blind due to cataract. It is the cause of approximately 5% of blindness in the United States and nearly 60% of blindness in parts of Africa and South America. Blindness from cataracts occurs in about 10 to 40 per 100,000 children in the developing world and 1 to 4 per 100,000 children in the developed world.

Projections in India show that among those aged 50+ years, the quantum of cataract surgery would double approximately to 7.63 million in 2020 and the cataract surgical rate would increase to 27817/million in 2020. Though the prevalence of cataract blindness would decrease, the absolute number of cataract blind would increase to 8.25 million in 2020 due to a substantial increase in the population above 50 years in India over this period. There is clearly a need to make Cataract surgery more affordable and more easily accessible.

The use of Robots to perform eye surgery was first successfully practiced in 2016 in the John Radcliffe Hospital of the University of Oxford. This advancement in technology is designed to eliminate tremors in the surgeons hand, so that manipulations can be safely carried out within a small organ such as eye. The Robot enables high

precision procedures to be carried out, which are beyond the capabilities of the human head.

Countries like India will always have a need to encourage such faster and precision based systems of medical treatment so that large populations can be covered within the shortest possible time. In India, Tamil Nadu has traditionally been considered as the leader in the use of the latest procedures for medical treatment. In that context, the Robotic Cataract Surgery system that will be available in the Rajan Eye Care Hospital will be one such revolutionary step. I am sure this that will enable the Hospital to attend to the needs of many more patients than would be possible with conventional methods.

Prevention is better than cure is a old saying. While it is important for us to enhance our capabilities in the system and cure of diseases it is even more important to ensure that the various organs of the human body gifted to us at the time of birth are properly maintained by adopting simple techniques. For example, for better eye care, it is well known that offering prayers to the morning sun helps in improving eye sight. This is so, because it provides the automatic exercise for the ciliary muscles which envelop the eye lens. Similarly another common technique that is practiced is to rub mustard oil on the soles of one's feet. I have also observed people adding a small quantity of pepper to clarified butter and drinking it in the morning, to improve their eye sight. I am sure that the distinguished audience assembled here is also aware of many other techniques such as exercising the eyes regularly to ensure that they are maintained in fine trim.

I am mentioning all this for you to appreciate that the ocean of knowledge is vast and limitless. While the system of medicine in which you have been trained has its own benefits, it is important that there is a continuous inter-action between different medical traditions, whether modern or ancient, whether of the west or east, so that they could blend harmoniously and rid each other of their defects. It is necessary to create a new model for health and healing, keeping the patient at the core of the treatment, without being fixated on a single system of medicine.

My best wishes are with the Rajan Eye Care Hospital who have ushered in a revolution in Eye Care through the use of Robotics. I wish to emphasize that medical

care should be effective so as to reduce pain and suffering and also be affordable to the common man. It should also be easily accessible available and within the reach of the common man. The medicines needed for treatment should also be made available at a reasonable price.

Tamil Nadu has always been well known for the special attention that it provides to the sick and suffering. Many innovative techniques whether it be Liver transplantation, or eye care or Cardiac treatment have been propagated widely in the State. Tamil Nadu is hence figuring as the main hub for medical tourism in the eastern part of the world. Already the State has more than 10% of the medical colleges in the Country. With this Rosy background and a open mind to accept the latest techniques in medical treatment, I am sure that the medical fraternity will be able to record significant path breaking advances in the coming years to combat disease to make medical care more affordable and reduce pain, suffering and mortality rates. By doing this, they will be fully realizing the use of their talents and skills for the benefit of man kind.

I wish them all success in their endeavors.

Raj Bhavan

Chennai