

Present Status of Cataract Eradication in China

by Dr Yuan Jia-Qin, China

Introduction

The work for prevention and treatment of blindness in China was initiated in the early 1950s. The work at that time was largely focused on trachoma as it was the main cause of blindness then. In 1987 the program was revised after an epidemiologic survey conducted with adherence to WHO standards, showed that the rate of blindness in China was 0.43% and cataract was identified as the leading cause. Recently it was estimated that there are approximately 9 million blind in China, of which 4 million are due to cataract. Our government hence decided to concentrate its efforts in the restoration of vision secondary to cataract in the population.

The Establishment of Blind Prevention Network

In 1987 primary eye care was integrated into the primary health care schemes with the establishment of eye care networks. This connected eye care services in the rural areas with the larger health care centres in the provinces.

High priority was given to manpower development along with allocation of resources. Great efforts were taken in training eye surgeons together with primary health workers. Mass health education was instituted to increase public awareness and encourage strong community participation in blindness prevention.

Advanced County Campaign in China

With the establishment of ophthalmic teams in the provinces and counties, they were encouraged to further develop their roles with the following guidelines:

1. A strong commitment by the county health administration in promoting prevention of blindness.
2. The development of operational plans and action programs under close supervision by the county teams.
3. Each village to assign a doctor to practise primary eye care and institute initial treatment before referring to higher centres when necessary.
4. Each county to set up a blind register, so that the cataract blind could be identified and given early treatment. It was also recommended that at least 70% of the cataract blind should be operated.
5. Health education must be disseminated to facilitate earlier detection of poor vision.

To date, more than 58 counties in 15 provinces have been able to fulfill the above criteria and have been recognised by the Ministry of Health as centres of "advanced eye care centres". Further efforts have been undertaken to encourage the development of services in the remaining areas.

1.75 Millions of Cataract Operations were Performed In 1988-1996

Between 1988 and 1996, 1.75 million benefited from cataract surgery. The techniques performed were ICCE or ECCE with intraocular implant. Teams have been sent to the remote border provinces, minority nationality regions, farming and stockbreeding areas and the poor areas to provide visual rehabilitation from cataract. However, it was only from 1997 that cataract surgery with intraocular lens implant became the standard practice in the whole of China.

International Intraocular Implant Training Centre Tianjin China

Establishment

The International Intraocular Implant Training Centre Tianjin China (IIITC) was initiated by Professor Arthur Lim from Singapore.

Funds were raised from all over the world to establish the centre at the Tianjin Medical College. This was met with enthusiastic response and warm support from an international group of leading ophthalmologists that included Dr Kensaku Miyake, Prof Akira Momose, Professor Yoshinao Majima and Professor Akira Nakajima. With the approval of the State Council and the Municipal Government of Tianjin, the Training Centre was inaugurated in September, 1989.

Objectives

The objectives of establishing the International Intraocular Implant Training Centre in Tianjin are threefold:-

1. To work with and supervise ophthalmologists in villages, small towns and regional hospitals, in treating the thousands of cataract patients.
2. To train Chinese ophthalmologists in implant surgery with an emphasis on low cost techniques.
3. To eventually develop the implant center into a center for research and development.

This system of establishing a training center with rural satellite bases for implant surgery is the first in the world. If successful, it may be an example for other developing countries to adopt.

The Trainees Spreading All Over China

Training Course

Thirty-six training courses have been conducted since 1989, including 15 held in the rural bases (Fig. 1). A total of 1964 ophthalmologists have been trained. In addition, 181 ophthalmologists from all over the country have been attached to the Centre for three-month intensive training in cataract surgery.

Quality Assurance

To ensure high standards of teaching and quality assurance, operating microscopes and microsurgical instruments of high quality are used. The teachers are all experienced eye surgeons, provided with abundant teaching materials.

There are short and long-term programs. A short training program generally lasts 3 to 6 days, with emphasis on the fundamentals of microsurgery and implant surgery through lectures, live surgery demonstrations and hands-on wet-lab sessions on animals eyes. The 3-month programs allow the trainees to work as assistant residents and perform wet lab implant surgeries.

We have also begun training courses on phacoemulsification organised since 1992.

Low Cost

Although we have begun teaching phacoemulsification, the standard technique is still extracapsular cataract extraction with intraocular lens implant. This is not only a technique which is relatively simpler and faster to master, it also has the added advantage of lower costs. Keeping costs down is crucial in a developing country such as ours where the population is large and the financial resources limited.

Spreading Light Across China

With the success of cataract surgery performed at IIITC and affiliated centres, it became our aim to provide this service to the rest of China. I visited medical colleges and hospitals throughout China, running training courses and teaching local ophthalmologists implant surgery (Fig. 2).

In addition, all our experienced doctors have extended our work all over our country, especially in the rural areas. From 1988 to 1997, IIITC has sent teams to 73 hospitals in different parts of China to help them in the training of implant surgery. To date, we have 22 affiliated hospitals distributed in different parts of China. A total of 67,000 cases of implant surgery have been performed jointly by staff of IIITC and the ophthalmologists trained in IIITC.

The Influence of IIITC

1. IIITC has played an important role in introducing and establishing implant surgery as the standard practice in China.

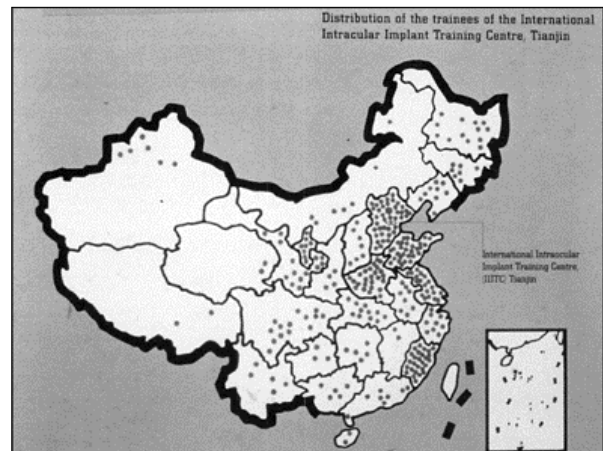


Fig. 1 Distribution of trainees all over China.

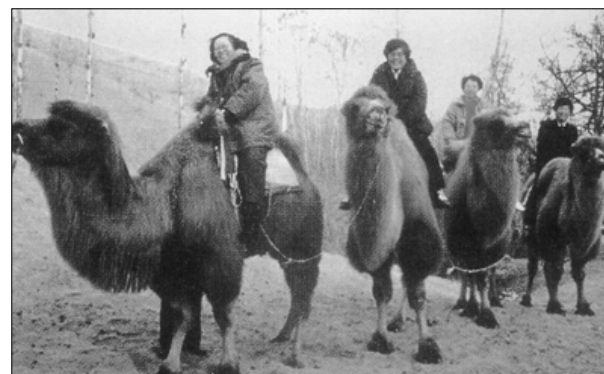


Fig. 2 Visits of surgical team to rural areas of China.

2. The development of implant surgery has allowed for the development of other ophthalmic microsurgery.
3. The success of implant surgery has promoted the development of related industries.
4. The development of implant surgery in China encourages other developing countries of the world to follow suit.
5. IITC may be the model for other developing countries to follow in developing implant surgery.

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