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EDITORIALS

Editorials are written by members of the Editorial Board, and occasionally by guest editorial writers at the invitation of the Editor, and opinions expressed are those of the writers.

Mitsuda and the Astronauts

On their world tour in 1969 the astronauts Neil Armstrong, Edwin Aldrin and Michael Collins, who were on the Apollo 11 mission that landed the first men on the moon, were presented the Medal of Cultural Achievement by the Japanese Government. This is the highest honor outside of the military and political fields that is awarded in Japan and is colloquially often referred to as the "Japanese Nobel Prize." It is the first time that the award has been made to persons not Japanese. The award consisted of the medal only. Japanese recipients receive also an annual emolument for the rest of their lives. The presentation brings to mind the recollection that in 1951 Dr. K. Mitsuda received the same honor for his work in leprosy. Somehow this inadvertant equalization of honors may seem gratifying to those who have seen colleagues struggle for lifetimes with the vexing, tenacious and socially demoralizing problems of leprosy with only limited support for their efforts.— O. K. Skinsnes.

Leprosy of the Eye, Present Status and Future Challenge[1, 2]

Prophylactic and therapeutic measures on behalf of patients afflicted with ocular complications of leprosy comprise an intricate network of activities. They begin with getting the patient and his family to come to the hospital or clinic; performing routine thorough and repeated eye examinations; establishing the correct ophthalmologic diagnosis; enlisting the patient's cooperation to take systemic and ocular medications, prescribing eye glasses, goggles, moist chambers, low vision aids, performing operations to protect his eyes, restore his vision and improve his appearance.

Most of these measures sound rather simple. However, cultural, religious, geographic and socio-economic factors frequently present barriers to even the most carefully laid out programs. With the rapid growth in population, particularly in countries where leprosy is endemic, the number of leprosy victims is probably growing. In

1 Guest editorial.
2 Read at the 47th South African Medical Congress, Pretoria, Republic of South Africa, July 1969.

most of the newly developing countries of Asia, Africa and Latin America there exists a shortage and maldistribution of ophthalmologists. The ratio of ophthalmologists to population in one country is as low as one to one million. In some countries patients have been known to sell their sulfone tablets on the black market. Surgical technics for removal of cataracts have been vastly improved. Yet blind patients under my care refused cataract surgery, as by doing so their names would have been removed from the list of the legally blind with corresponding loss of pensions for blindness. In still other areas patients will not submit to eye surgery because fellow patients had not always regained maximal vision following such operations. Though the miracle of corneal transplantation has become commonplace, in certain parts of the world there remains a religious bias towards corneal grafting. The eye of a person of lower social status or of a different cast is unacceptable. In other areas there is a vehement opposition to mutilation of the dead, this amounting to sacrilege. In most areas donors eyes are scarce. In almost all areas where leprosy is endemic there is a relatively high proportion of unknown blind persons—"the hidden blind." It appears likely that they remain unknown because they are afflicted with multiple deformities and their relatives want to conceal them from all but the immediate family and close friends.

In lepromatous leprosy, the commonest eye lesions include partial or complete alopecia of the lids and lepromas of the lids, cornea, limbus, iris and ciliary body, punctuate keratitis, corneal anesthesia, episcleritis, scleritis and the sequelae of sercus or plastic uveitis with cataracta complicata. Scleritis may cause scleral thinning, sclerosing keratitis, staphyloma and even perfora tion. Military lepromas or "pearls" of the iris are considered pathognomonic features of the disease. They may occur months or years before there is clinical evidence of general or ocular involvement.

In tuberculoid leprosy, the majority of eye lesions are the aftermaths of facial palsy. They include entropian, ectropion, lagophthalmos, pannus, exposure keratitis, corneal ulcers and scars.

In my experience, wide or narrow angle glaucoma as well as involvement of the retina and choroid are uncommon.

Reports from various parts of the world indicate that 10-50 per cent of patients with leprosy sooner or later develop eye complications. If we accept the figure of approximately 10 million people having leprosy throughout the world, it appears that one to five million of them will need eye care. This estimate includes patients who developed eye lesions prior to the discovery of sulfone drugs.

The maintenance of useful vision, the treatment of eye diseases and the prevention of blindness among the majority of patients afflicted with ocular complications of leprosy involve primarily improved methods of communications, speedier application of new discoveries and tried and tested surgical technics. Even corrective eye glasses must take second place to maintaining adequate sulfone therapy, combating hunger, providing shelter and minimal sanitary facilities.

It is clear that the developed Western nations cannot supply their neighbors with sufficient professional personnel to meet the needs for the prevention, treatment and rehabilitation of ocular manifestations of leprosy. The bulk of the burden must be borne largely by a slim cadre of indigenous professional medical personnel. To meet these responsibilities a well-organized system of paramedical auxiliaries is essential. The paramedics should have sufficient education to grasp the technical essentials of their task and to work if necessary as independent, responsible persons with periodic contact with their fully trained colleagues.

A 1958 report from Shanghai, China, tells of training rural health teams that consisted of nurses, midwives and "junior" members. Members of these teams were taught to diagnose common eye diseases and perform six eye operations: correction of entropion, expression of trachoma follicles, removal of corneal foreign bodies, incision and curettage of chalazion, dilatation and irrigation of the tear passages and electrolysis of trichiases. During a five-year period these teams performed over 80,000 surgical eye procedures. Their acceptance and success

were largely due to the fact that they referred all cases that they could not handle.

A 1968 report from Kenya details the work of eye-trained Medical Assistants in rural areas. These assistants have been taught by qualified ophthalmologists to assess the visual acuity, examine the eyes and ocular adnexae, initiate and conduct trachoma surveys and assist during surgery. While on safari they operate on patients with entropion (850 cases during a one-month period), and "perform with great skill' intracapsular lens extraction." They have, of course, no recognized medical qualifications. Dr. W. R. Burkitt, writing in the *British Journal of Ophthalmology* adds that "unsatisfactory as this whole procedure may appear to the orthodox clinician, there is, in fact, no alternative in Kenya at present. There are about sixty government ophthalmic beds in the country of 9,000,000 people."

The prevention, treatment and rehabilitation of the ophthalmologic, plastic and orthopedic deformities associated with leprosy requires the establishment of adequate training courses for paramedical personnel. The Schieffelin Leprosy Research Sanitorium or the Gandhi Memorial Leprosy Foundation in India, and similar clinics and hospitals in Ethiopia, Korea, Burma, Central and South America already partially meet these needs.

The future holds fair promise for further strides in the prevention, diagnosis and treatment of leprous lesions of the eye. The use of long acting drugs, improved technics of plastic surgery, keratoplasty including keratoprosthesis, cryosurgery, the temporalis transfer operation for paralytic lagophthalmos, electroretinography, scleral contact lenses and shells and other technics are examples of continued progress.

The trend toward outpatient treatment of leprosy, the training of paramedical workers in various aspects of prevention and treatment, and the abolition of social ostracism along with concern for the plight of fellow human beings provide a hopeful outlook for future generations.

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