

**WORKSHOP 13: THE EYE***Chair:* Dr. Felix Brandt*Rapporteur:* Dr. Timothy ffytche*Participants*

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The meeting was opened by Dr. Margaret Brand, who reviewed the current situation of ocular leprosy, highlighting some of the problems facing workers in the field of the disease.

Following this there were six sessions on wide-ranging topics which included the prevention, cure and care of blindness in leprosy, ocular pathology in the disease, ocular surgery and ocular complications seen at presentation, during and after chemotherapy.

The final session was devoted to a discussion of setting up of various projects to be undertaken by members of the group in anticipation of the next meeting. Due to the lack of time, several important subjects could not be addressed. These included epidemiology and the training of medical staff.

**Summary of main points of discussion**

**Ocular surveys.** It was generally agreed that the value of horizontal surveys was limited, although important, in drawing attention to the current ocular problems in the areas surveyed. It was recommended that longitudinal surveys should be encouraged with the standardization of data wherever possible. Too often there are differing definitions of such important measurements as blindness and visual impairment, and the evaluation of clinical entities such as lagophthalmos, diminished corneal sensation and iris atrophy needs to be standardized.

**Ocular pathology.** The group recognized that there is still a great lack of pathological studies on tissues of the eyes of leprosy patients in all stages of ocular involvement

even when there is little or no evidence of this. It was recommended that specimens should be retained for histological examination and sent to ocular pathologists identified by the group. It was emphasized that wherever possible specimens should be accompanied by clinical data on the patient, and that the specimens should be fixed in 10% formalin or, in the case of small biopsy tissues, in 2.5% glutaraldehyde if available. At autopsy eyes and skin specimens taken from sites known to be affected should also be sent. This aspect of research was regarded as a high priority.

Immunological studies on ocular tissue should also be encouraged where the appropriate facilities for examination exist.

**Clinical examination.** The group recommended that registry cards used in any leprosy program should include a section dealing with the eyes, and that training manuals for leprosy workers and eye workers should give more attention to eye care and the prevention of ocular complications.

On more specific points, the group agreed on a definition of blindness to be used in future surveys: "Blindness" was defined as corrected vision of less than 3/60 in the better eye. Vision less than 6/60 in the better eye was termed "severe visual impairment."

There was a long discussion on facial nerve involvement including muscle weakness, lagophthalmos and exposure. It was admitted that the current classification of this condition was unsatisfactory, and the group spent a great deal of time on grading the clinical examination of the condition. It was

agreed that lagophthalmos should be graded as:

- 1 = Normal
- 2 = Orbicularis muscle weakness
- 3 = Lid gap with cornea covered in mild closure
- 4 = Lid gap with cornea exposed in mild closure

It was generally agreed that impairment of corneal sensation is one of the most important factors in the production of eye complications in leprosy. Quantitative measurements remain difficult, and the traditional method of testing with a cotton wool wisp is probably the best. Three levels of sensation can be recorded in this way: normal, diminished and absent, although grading diminished sensation can be a problem. It is recommended that corneal sensation be tested by touching the center of the cornea, and this should be carried out routinely by paramedical workers.

There were several presentations on iris atrophy and its early diagnosis. It was suggested that measurement of the pupil/cycle time (PCT) would be an interesting clinical examination in early cases.

It was generally agreed that treatment at the early stage of the disease reduces the incidence of ocular complications. But evidence was presented showing that problems can exist at the time of diagnosis and also arise during treatment. An important finding was that a significant proportion of patients released from treatment (RFT) had

sight-threatening lesions requiring continued follow up and management, and there is evidence that new ocular problems due to leprosy can occur in patients classified as "cured."

Although the results of intraocular surgery, particularly cataract removal, are not as bad as expected, there is room for improvement and the introduction of intraocular lenses will add a new dimension which will need to be carefully considered. This subject was discussed at length, and recommendations were made for future comparative studies of different types of cataract surgery.

**Projects set up.** It was agreed that the following projects should be set up in advance of the next ILA meeting: a) Pathology scheme, Supervisor—F. Brandt; b) Cataract study, Supervisor—M. Rajan; c) IOL study, Supervisor—M. Karacorlu; d) Chemotherapy, Supervisor—M. Rajan; e) Pupil/cycle time, Supervisor—M. Karacorlu.

#### **Final summary**

The group expressed their gratitude to the International Leprosy Association (ILA) for making this Workshop possible and for drawing attention to the ocular complications of leprosy. It was noted that many participants who planned to attend were unable to do so because of financial restrictions and difficulties in obtaining visas. It is to be hoped that the ILA will be able to overcome these problems when the next Workshop is organized.