

UNRECOGNIZED OCULAR MORBIDITY IN LEPROSY

Editor,

Ocular complications in leprosy patients are well known. It is also equally well known that most of these are preventable. Furthermore they have the same risk of becoming blind due to nonleprosy associated factors as any other person. To be effective in reducing blindness and ocular morbidity in leprosy patients, preventive measures are necessary. In order to organize such preventive programmes it is essential to determine the degree to which patients are aware that their eyes can be affected in leprosy and whether they take steps to have their eyes examined. An ideal way to get this information is through a population-based longitudinal study of patients within a defined control area programme. There are several constraints in doing this which led us to study the eye complications encountered in patients who had not presented themselves for an ocular examination at an eye clinic, but who attended the outpatient clinics of a tertiary leprosy hospital.

Patients and methods

All consecutive leprosy patients who presented at the supervised multidrug therapy (MDT) clinics in the hospital in the months of July and August, 1995 but who had no intention of attending the eye clinic of the same facility, the Schieffelin Leprosy Research and Training Centre, Karigiri, a tertiary leprosy hospital situated in South India, were included in the study.

After patients were seen in the MDT clinics where there are no eye-care activities they were specifically asked a set of questions from a pre-formed questionnaire. The questionnaire included questions about the last visit to the hospital and to the eye department, their knowledge about eyes in leprosy, the intention of visiting the eye clinic and their present eye problems.

The general demographic characteristics of these patients and their leprosy data were collected from their records. Visual acuity was tested with the Snellens E-chart and if necessary with finger counting. Both eyes of all the patients were examined by direct oblique illumination and by slit lamp biomicroscopy.

Table 1. Demographic information of the study group

Age (years)	Never attended				Attended			
	M	F	Total	%	M	F	Total	%
>20	6	5	11	(21.1)	14	5	19	(10.1)
20–29	12	3	15	(28.9)	27	12	39	(20.6)
30–39	8	5	13	(25.0)	30	12	42	(22.2)
>40	7	6	13	(25.0)	57	32	89	(47.1)
Total	33	19	52		128	61	189	
	63.5	36.5	100.0		67.7	32.3	100.0	

The lids, eyebrows, conjunctiva, sclera and the lacrimal system were examined carefully with focal illumination. The cornea was checked for opacities and pannus, and the iris for signs of iridocyclitis. Pupil size, shape and reaction to light were noted. The corneal sensitivity was tested with a cotton wisp. All the findings in both eyes were recorded on a preformed-format.

Results

Of the 241 patients who attended the MDT clinic during the study period and were screened for ophthalmic complications, 52 (21.6%) had never visited the eye department formed the study group. The age and sex distribution of this group together with the rest of the patients who were seen earlier in the eye clinic are given in Table 1.

Among the leprosy patients who had never attended the eye clinic, 1 was of the indeterminate (IND) type, 1 a polar tuberculoid (TT) patient, 27 were borderline tuberculoid (BT), 2 were borderline borderline (BB), 18 were borderline lepromatous (BL) and 3 were polar lepromatous (LL). Out of the 52 patients 23 (44%) belonged to the multibacillary (MB) group of patients.

Only 4 (7.7%) patients knew about ocular leprosy; 3 knew that leprosy can cause blindness. Among patients ($n = 189$) whose eyes had been examined previously, 63 (33%) had some knowledge of ocular leprosy. Six patients from the study group had eye complications such as burning sensation, watering, pain and defective vision. The visual acuity of patients who had never been to the eye clinic and those who had been is given in Table 2. Eight patients (15.4%) had a vision of less than 6/18 in one or more eyes, 1 patient had a blind eye (less than 3/60) and an eye with poor vision (6/60). The eye complications present in the patients who had never visited an eye clinic is given in Table 3. Six (11.5%) of the 52 patients had at least one eye complication.

Table 2. Visual acuities of the study patients

Visual acuity	Never visited the eye clinic		Had visited the eye clinic	
	Unilateral	Bilateral	Unilateral	Bilateral
<3/60	1	0	8	2
3/60–5/60	0	0	6	2
6/60–6/18	2	5	14	30

Table 3. Description of patients with eye complications

Patient No.	Age	Sex	Type	Duration of MDT (months)	Eye complications
1	35	F	BT	11	Lagophthalmos (LE), Corneal opacity (LE) Pterygium (BE), Trichiasis (BE)
2	32	M	BL	12	Pterygium (LE)
3	62	F	BL	19	Cataract (secondary) (BE)
4	64	M	LL	18	Cataract (BE)
5	69	M	BL	15	Iridocyclitis (RE) Aphakia (BE)
6	36	M	BT	11	Pterygium (LE)
7	35	F	BL	8	Iridocyclitis (LE)
8	18	F	BT	5	Bitot spots (BE)
9	25	M	BL	7	Bitot spots (BE)

Among the patients who had attended the eye clinic (out of a total of 378 eyes) 12 eyes had a visual acuity of less than 3/60, 10 had visual acuity between 3/60 and 5/60, 74 had a visual acuity of more than 5/60 but less than 6/9 and the remaining 282 eyes had a visual acuity of better than 6/18. Lagophthalmos was present in 22 eyes, trichiasis in one eye, ectropion in one eye, pterygium in 26 eyes, corneal opacities in 24 eyes, chronic iridocyclitis in 10 eyes, complicated cataract in 4 eyes, age-related cataract in 48 eyes and aphakia in 5 eyes.

Discussion

Deformities and disabilities of hands and feet have always been accorded a place of high prominence in disability prevention programmes while ocular disabilities have not received similar attention.

Our finding that 21.6% of patients who attended the MDT review clinics during the time of the study have not had their eyes checked at any time is revealing. It highlights the need for patients to recognize the importance of eye care and gives priority to inculcating these patients with the knowledge required for it.

Six out of the 52 patients (11.5%), in spite of having eye problems, did not feel the need to attend the eye clinic. Furthermore, our finding that a relatively high proportion of patients (15%) had reduced vision (less than 6/18) emphasizes the need for patients to be aware of the need for seeking professional help immediately. Two of these patients had bilateral cataracts and although these may not need immediate attention they do contribute to preventable ocular morbidity among leprosy patients.

Lagophthalmos, which has been categorized as a potentially sight-threatening lesion, was present in 2 patients. Previous literature show the advantage of early recognition of lagophthalmos and its treatment compared to the less effective treatment available for advanced cases.¹ It is also well recognized that exposure problems are common and can occur at any time in lagophthalmos patients. It is imperative that such patients have adequate knowledge to seek help early. Iridocyclitis, which constitutes one of the pathways to blindness in leprosy was found in one eye of a patient.

Pterygium is very common in tropical countries like India. In our study 3 patients had pterygium. Pterygium which moves into the pupillary are will also contribute to the ocular morbidity even if surgical treatments is provided. Thus, it should be recognized earlier before it causes visual disability in spite of treatment.

We advocate that all medical and surgical departments of large leprosy centres should arrange for routine eye check-ups, especially if specialized eye departments and facilities are available. All leprosy personnel, in particular medical staff, must be trained to recognize eye complications and to educate leprosy patients on potential eye complications, their prevention and early identification.

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References

- ¹ Kiran KU, Hogeweg M, Suneetha S. Treatment of recent facial nerve damage with lagophthalmos, using a semi standardized regimen. *Lepr Rev*, 1981; 53: 150–154.