Indian J Lepr 2025, 97 : 163-173

http://www.ijl.org.in

Original Article

Revisiting the Eye-Hand-Foot Score as a Simple Tool in Assessing the Disability Progression in Leprosy Patients in India

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Received: 03.10.2024 Revised:09.12.2024 Accepted:20.01.2025

The Global leprosy strategy 2021-2030 emphasizes managing leprosy and its complications and preventing new disabilities as one of its strategic pillars. This study assessed the impairment status of newly diagnosed leprosy patients, at the beginning and end of the multi-drug therapy by using the Eye, Hand, and Foot (EHF) score. The study also analyzed the socio-demographic and clinical factors associated with the worsening of the EHF score. This retrospective study was based on case-records of patients who were diagnosed with leprosy, registered for treatment and completed treatment in 6-9 months for paucibacillary cases and 12-18 months for multibacillary (MB) cases in a secondary level leprosy care center India, from April 2010 to March 2020 were analyzed. Out of 531 records of newly diagnosed leprosy cases, 232 met the inclusion criteria. At diagnosis, the mean EHF score was 1.49, and at the end of treatment, it was 2.13, which was 0.63 higher than at diagnosis ($p < 0.001$). While the worsening of EHF scores was observed in 38.3% of 232 patients, only 5.6% deteriorated by WHO grading. Worsening of the EHF Score after treatment occurred with increasing age (OR: 1.03, 95% CI, 1.01-1.06), being illiterate (OR: 2.86, 95% CI, 1.50-5.46) and having MB type (OR: 4.43, 95% CI, 1.30-15.1) and lepromatous type (OR: 1.80, 95% CI, 0.90-3.60) leprosy. To conclude, our findings underscore the need for utilizing the EHF score in monitoring leprosy-related disabilities in addition to WHO disability grading system. Continued surveillance during MDT and regular nerve function assessments and treatment of neuritis when detected, are critical to mitigate disability progression among high-risk patients like being illiterate, multibacillary and lepromatous type of leprosy, ultimately reducing the risk of developing grade 2 disability.

Keywords: Hansen's Disease, Leprosy, Disabilities, Nerve Function Assessment, Leprosy Reactions, Eye Hand and Foot (EHF) score

Introduction

Leprosy is a chronic disease caused by *Mycobacterium leprae* or *Mycobacterium lepromatosis* that affects skin and peripheral nerves. Peripheral nerve involvement affects the sensory, motor, and autonomic nerve functions leading to patients developing disabilities. It is estimated that 3-4 million people are living

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with visible impairments globally due to leprosy associated with limitation of physical activities, loss of manpower, and negative impact on the affected person's family in addition to the stigma faced by them (WHO 2021). The World Health Organization (WHO) disability grading system classifies leprosy related disabilities as Grade 0 meaning no impairment, Grade 1 meaning loss of sensation in the hand, eyes or foot, and Grade 2 as a visible impairment (WHO 1988). Basing on WHO grading system proportion of Grade 2 physical disability (G2D) among newly diagnosed leprosy cases is currently being used as epidemiological indicator to assess the efficacy of leprosy public health programme in early detection of leprosy cases. As reported in 2023, globally 1.2 per million population (5.5 % of new cases) were diagnosed with G2D at diagnosis (WHO 2023). Prevention of disability through early detection and treatment of leprosy is one of the strategic pillars of the Global Leprosy Strategy (WHO 2021). While G2D in new leprosy is one of the key programme indicators, it is important to monitor the occurrence or progression of disability during and after MDT as the disability progression poses long term consequences to the affected persons that negatively impact their quality of life (Araujo et al 2024). However, to our knowledge there is limited availability of reports that compares the disabilities during and after the MDT treatment (Reed et al 1997, Meima et al 2001, Heidinger et al 2018). Addressing this gap, the current study focused on substantiating the evidence on the same.

In addition to the WHO disability grading system, the study also focused on Eye, Hand, Feet (EHF) score, an alternate and detailed reliable scoring system that helps in quantifying the impairments in patients with leprosy related disabilities. Though previous studies have suggested that the disability grading system be renamed as "the WHO impairment grading system" instead of the WHO disability grading system, the latter is still commonly used (Nienhuis et al 2004). The WHO disability grading system assesses a person's overall impairment status by taking the highest grade from any of the six sites. In contrast, the EHF score assesses impairment at each of the six individual sites using the same grading criteria (0, 1, and 2). This assessment is undertaken for both the right and left eyes, hands, and feet. The EHF scoring method is more objective and can be performed by field health workers, making it a potentially more sensitive tool for either identifying the hidden disabilities or monitoring the outcomes (van Brakel et al 1999, Cunha De Souza et al 2016, Broekhuis et al 2000, Brandsma et al 2004). Current disability grading by WHO system relies on recording the highest grade of impairment from any one of the six sites and has the disadvantage of ignoring the impairments on the other sites and being less monitored. EHF scoring system on the other hand provides a more comprehensive understanding of overall impairment status by virtue of its inclusion of all the six sites which will help in monitoring. Hence the proposed study aimed at assessing the impairment status by both the WHO grading and the EHF score at the time of diagnosis and determining the factors associated with its progression or betterment at the time of treatment completion.

Methodology

A retrospective record-based study was conducted at LEPRA Society-Blue Peter Public Health and Research Center (LEPRA-BPHRC), Telangana, India. Being a secondary level leprosy center, BPHRC provides outpatient services to people affected by leprosy who either self-refer or are referred by a public or private health provider for either leprosy diagnosis or management of complications. Case records of all newly diagnosed leprosy patients who were treated at this center between April 2010 and March 2020

were analyzed. Patients who were presumed to be leprosy were subjected to a thorough clinical examination, including motor and sensory nerve function testing, and slit skin smear examination (SSS). They were also examined for the presence of leprosy reactions and neuritis. Clinical classification of patients was done as per both the WHO classification and Indian Association of Leprologists (IAL) - Five group classification (IAL 1982). Confirmed patients were classified and treated accordingly as per the standard NLEP guidelines. Routine disability grading was done as per the standard WHO disability grading system; additionally, impairment status using Eye, Hand, and Foot (EHF) Score was undertaken as per the standard EHF scoring as described previously (van Brakel et al 1999). Briefly, the impairment status was recorded for each of the six testing sites- the eyes, hands, and feet; then the EHF score is arrived at by adding up the scores (ranging from 0 to 2 points) which results in a total score anywhere between 0 and 12 points.

The complete course of MDT addresses the infection and arrests the progression of the disease and possibly the impending physical disabilities that could occur. Therefore, the study cohort included leprosy patients who completed MDT treatment within 6-9 months respectively for the paucibacillary (PB) and 12-18 months for multibacillary cases (MB). Disability grade and EHF score at the time of diagnosis and at the end of treatment (referred to as (RFT) Released from Treatment) were recorded. Criteria for RFT was completion of 12 Monthly MDT pulses for MB leprosy and 6 monthly pulses for PB leprosy as defined by NLEP (2019). Case records that had both EHF score and WHO disability grades recorded at the time of initiation and completion (RFT) of the MDT only were included. Apart from EHF score and disability grade, the data on demography-age, gender, education level, marital status, employment status; clinical examination- number of skin lesions and number of nerves involved, Bacterial Index status, IAL Classification, treatment details and presence of neuritis, leprosy reactions, which were considered as potential risk factors for adverse outcome (worsening of EHF Score) was also extracted.

Statistical Analysis

Worsening was defined as an increase/ deterioration in the EHF score from diagnosis to RFT, while no worsening was defined as decrease/improvement or having the same/ stable EHF score at diagnosis and RFT. Frequency was used to describe sample characteristics, and Chi-square ($\chi 2$) and/or Fischer's test, to assess statistical significance at $p < 0.05$ level. The results of a univariate logistic regression analysis are reported, followed by a backward stepwise regression which identified the most parsimonious model with selected variables. The analysis was conducted in SPSS version-23.

The study protocol was approved by the Institutional Ethics Committee-LEPRA Society (Reference no: 01/LEPRA/IEC/2022)

Case Definitions as defined by NLEP (2019):

Case of Leprosy: Having one of the following cardinal signs was used to diagnose leprosy,

- Hypo-pigmented or reddish skin lesion(s) with definite sensory deficit;
- Involvement of the peripheral nerves, as demonstrated by definite thickening with loss of sensation and weakness /paralysis of the corresponding muscles of the hands, feet or eyes;
- Demonstration of *M leprae* in the lesions.

Paucibacillary Case: one to five skin lesions, with no nerve (or) only one nerve peripheral nerve involvement, and negative skin smear at all sites.

Multibacillary Case: six or more skin lesions with more than one nerve peripheral nerve

involvement, and positive skin smear at any site.

Nerve Palpation: Radial, Ulnar, Median, Lateral popliteal, Posterior tibial nerves were palpated bilaterally to record the enlargement and tenderness and were graded as normal or enlarged.

Type-1 or reversal reaction(T1R): A patient was diagnosed with type-1 reaction if presented with signs of inflammation in the existing hypopigmented patches i.e. red, swollen, shiny and warm skin lesions. Accompanied by neuritis and oedema of the hands, feet and/or face.

Type-2 or Erythema nodosum leprosum (ENL): A patient was diagnosed with ENL if presented with crops of red, firm, painful, tender, subcutaneous nodules, accompanied may be or may not be with neuritis, iritis, arthritis, orchitis, dactylitis, lymphadenopathy, oedema and fever.

Nerve Function Assessments:

a) **Motor nerve function**: Voluntary muscle testing (VMT) was done by checking whether movement was normal, reduced or absent due to paralysis. If the movement was normal, a test for resistance was performed. The grading was done as Strong (able to perform the movement against full resistance); Weak (able to perform the movement but not against full resistance); Paralyzed (unable to perform the movement at all) (NLEP 2012).
    - Tight eye closure – facial nerve
    - Thumb abduction – median nerve
    - Little finger abduction – ulnar nerve
    - Wrist extension – radial nerve
    - Foot dorsiflexion – lateral popliteal nerve

b) **Sensory nerve function**: Sensations of the hands and feet were assessed using ball point pen and/or with 10 gm Semmes-Weinstein monofilaments (MF) wherever available. Testing sites are as below
    - For palm: distal of little finger, hypothenar, distal pulp of thumb and index finger, and thenar eminence.
    - For feet: big toe, 1st and 5th metatarsal heads, mid-lateral border and heel.

Results

A total of 531 newly diagnosed leprosy patients were registered during the study period; out of which 232 (43.6%) records met the inclusion criteria. Of the excluded cases, required data was unavailable for 211 (40.4%) cases, 76 (14.58%) of them left the control area and 2 (0.38%) of them died by the end of treatment (Fig.1).

Of the 232 cases, 82 (35.3%) of the study participants were young individuals belonging to the age-group of 15-29 years, 152 (65.5%) were males, and 98 (42.4%) were illiterate, 174 (75%) married, and 94 (40.5%) unemployed or inactive at the time of diagnosis. 187 (81%) patients were diagnosed with multibacillary leprosy, and a significant number of them i.e., 80 (34.4%) of them presented with more than five lesions and 81 (34.9%) showed positive slit smear results. 123 patients (53%) had more than three nerves affected, and ulnar nerve (89.8%) was most affected followed by posterior tibial (44.53%) and lateral popliteal (42.61%) nerves. One-fourth (64) of the patients presented with leprosy reactions at the time of diagnosis, including neuritis (8.62%), Type-1 (9.05%), and Type-2 (9.05%) reactions. Using the WHO disability grading system, 106 patients had disability at the time of diagnosis, with grade 2 (58, 25.4%) disabilities being more prevalent than grade 1 disabilities (48, 20.68%) (Table 1).

The mean EHF score at the diagnosis was 1.49 (95% CI: 1.22-1.76) whereas, the mean EHF score at the end of treatment, was 2.05 (95% CI: 1.71-2.39), which was 0.56 (95% CI: 0.39-0.72) higher than at diagnosis and statistically significant ($p < 0.001$). Deterioration in impairment status, as

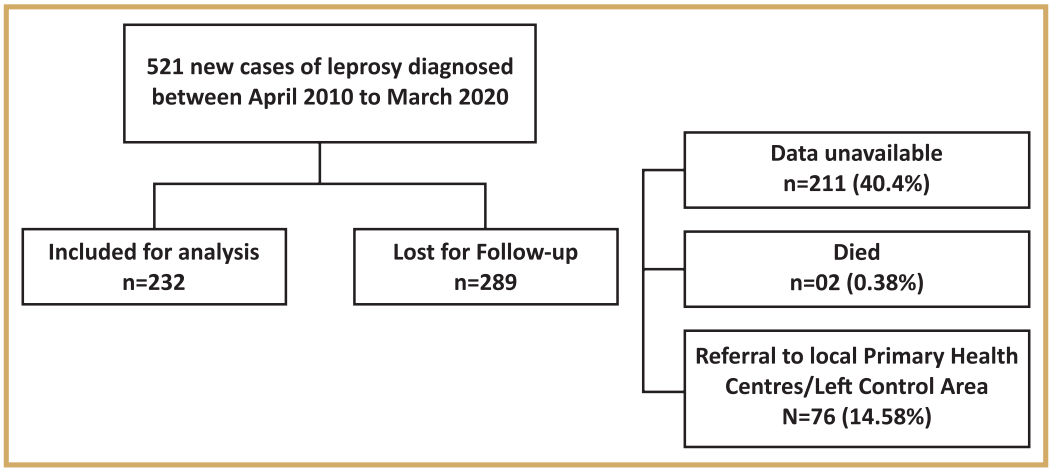

Fig. 1: Study cohort who completed multidrug therapy and included for analysis.

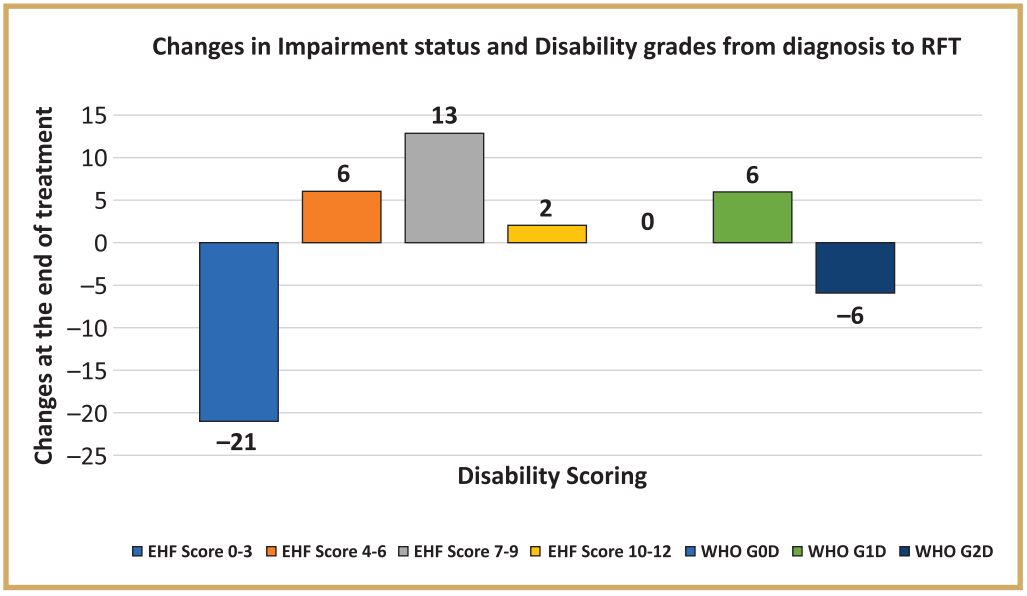

Fig. 2: Changes in impairment status at diagnosis to end of treatment as measured through Eye, Hand and Foot (EHF) Score and WHO disability grading.

measured by the EHF score, was found in 35.7% of patients, whereas using the WHO disability rating, deterioration in disability rating was found in only 5.6%, i.e. patients who progressed from grade 0 to grade 1 and grade 2 were eight and one, respectively, and those who progressed from grade 1 to grade 2 were four (Tables 1 & 2, Fig. 2).

Table 1: Demographic and clinical variables of study population, comparing the disability scores at diagnosis to RFT using Eye-Hand-Foot Score and WHO disability grading.

Demographic Variables at diagnosis	n (%)	EHF Score at diagnosis	EHF Score at RFT	WHO Disability grade at diagnosis			WHO Disability grade at RFT		
		Mean±SD	Mean±SD	Grade-0	Grade-1	Grade-2	Grade-0	Grade-1	Grade-2
		1.49±2.06	**2.05±2.64**	**126 (54.3)**	**48 (20.7)**	**58 (25.0)**	**126 (54.3)**	**54 (23.3)**	**52 (22.4)**
Age group (in years)									
0-14	13 (5.6)	0.38±1.07	0.92±1.85	11 (8.7)	01 (2.1)	01 (1.7)	10 (7.9)	02 (3.7)	01 (1.9)
15-29	82 (35.34)	1.03±1.76	1.28±2.27	55 (43.7)	10 (20.8)	17 (29.3)	58 (46.0)	12 (22.2)	12 (23.1)
30-44	77 (33.19)	1.38±1.85	1.96±2.23	38 (30.2)	25 (52.1)	14 (24.1)	38 (30.2)	25 (46.3)	14 (18.2)
45-59	41 (17.67)	2.31±2.47	3.21±2.99	17 (13.5)	08 (16.7)	16 (27.6)	15 (11.9)	11 (20.4)	15 (28.8)
>60	19 (8.19)	2.89±2.31	4.05±2.96	05 (4.0)	04 (8.3)	10 (17.2)	05 (4.0)	04 (7.4)	10 (19.2)
Gender									
Male	152 (65.52)	1.44±1.98	2.09±2.65	84 (66.7)	32 (66.7)	36 (62.1)	82 (65.1)	37 (68.5)	33 (63.5)
Female	80 (34.48)	1.58±2.20	1.98±2.62	42 (33.3)	16 (33.3)	22 (37.9)	44 (34.9)	17 (31.5)	19 (36.5)
Education level									
Illiterate	98 (42.24)	2.17±2.36	3.05±2.86	40 (31.7)	24 (50.0)	34 (58.6)	36 (28.6)	30 (55.6)	32 (61.5)
Primary	28 (12.07)	1.28±1.72	2.21±2.83	14 (11.1)	07 (14.6)	07 (12.1)	14 (11.1)	05 (9.3)	09 (17.3)
Secondary & Higher Secondary	50 (21.55)	0.96±1.61	1.30±2.11	34 (27)	07 (14.6)	09 (15.5)	34 (27.0)	09 (16.7)	07 (13.5)
College & above	56 (24.14)	0.89±1.59	0.91±1.71	38 (30.2)	10 (20.8)	08 (13.8)	42 (33.3)	10 (18.5)	04 (7.7)
Clinical Variables at diagnosis									
Number of lesions									
Single	57 (24.57)	0.5±1.24	0.80±1.74	45 (35.7)	08 (16.7)	04 (6.9)	44 (34.9)	08 (14.8)	05 (9.6)
2—5	48 (20.69)	1.08±1.46	1.64±2.28	26 (20.6)	13 (27.1)	09 (15.5)	28 (22.2)	11 (20.4)	09 (17.3)
>5	80 (34.48)	1.76±2.27	2.35±2.84	42 (33.3)	17 (35.4)	21 (36.2)	42 (33.3)	20 (37.0)	18 (34.6)
Diffuse	21 (9.05)	2.42±2.10	3.19±2.40	06 (4.8)	06 (12.5)	09 (15.5)	05 (4.0)	09 (16.7)	07 (13.5)
Not available	26 (11.21)	2.84±2.44	3.73±2.79	07 (5.6)	04 (8.3)	15 (25.9)	07 (5.6)	06 (11.1)	13 (25.0)

WHO Operational Classification									
Multi-bacillary	187 (80.6)	1.83±2.15	2.46±2.73	82 (65.1)	47 (97.9)	58 (100)	84 (66.7)	51 (94.4)	52 (100)
Pauci bacillary	45 (19.4)	0.66±0.32	0.21±0.80	44 (34.9)	01 (2.1)	00 (0)	42 (93.3)	03 (5.6)	00 (0)
IAL Classification									
Intermediate	02 (0.86)	00 (0)	00 (0)	02 (1.6)	00 (0)	00 (0)	02 (1.6)	00 (0)	00 (0)
Tuberculoid	04 (1.72)	00 (0)	00 (0)	04 (3.2)	00 (0)	00 (0)	04 (3.2)	00 (0)	00 (0)
Borderline	177 (76.29)	1.35±1.96	1.83±2.53	101 (80.2)	31 (64.6)	45 (77.6)	103 (81.7)	35 (64.8)	39 (75.0)
Lepromatous	37 (15.95)	2.21±2.27	3.21±2.77	14 (11.1)	15 (31.3)	08 (13.8)	12 (9.5)	16 (29.6)	09 (17.3)
Pure Neuritic	12 (5.17)	2.16±2.47	2.83±2.93	05 (4.0)	02 (4.2)	05 (8.6)	05 (4.0)	03 (5.6)	04 (7.7)
BI status									
Negative	139 (59.91)	1.3±2.07	1.72±2.48	85 (67.5)	18 (37.5)	36 (62.1)	83 (65.9)	27 (50.0)	29 (55.8)
Positive	81 (34.91)	1.98±2.05	2.79±2.84	31 (24.6)	30 (62.5)	20 (34.5)	34 (27.0)	26 (48.0)	21 (40.1)
Not available	12 (5.17)	0.41±0.95	0.91±1.70	10 (7.9)	00 (0)	02 (3.4)	09 (7.1)	01 (1.9)	02 (3.8)
No. of nerves involved									
<3	109 (47)	0.65±1.28	0.98±1.71	80 (63.5)	16 (33.3)	13 (22.4)	78 (61.9)	22 (40.7)	09 (17.3)
≥3	123 (53)	2.24±2.31	3.00±2.93	46 (38.5)	32 (66.7)	45 (77.6)	48 (38.1)	32 (59.3)	43 (82.7)
Reactions									
Neuritis	20 (8.62)	2.35±1.52	2.60±2.10	05 (4.0)	04 (8.3)	11 (19.0)	06 (4.8)	08 (14.8)	06 (11.5)
Type-1	21 (9.05)	1.42±1.81	1.57±1.96	10 (7.9)	05 (10.4)	06 (10.3)	12 (9.5)	05 (9.3)	04 (7.7)
Type-2	21 (9.05)	2.09±2.18	3.19±2.59	08 (6.3)	10 (20.8)	03 (5.2)	06 (4.8)	10 (18.5)	05 (9.6)
Combined	02 (1.29)	1.0±1.0	1.5±1.5	01 (0.8)	01 (2.1)	00 (0)	01 (0.8)	01 (1.9)	00 (0)
Nil	168 (72.41)	1.33±1.33	1.91±2.74	102 (81)	28 (58.3)	38 (65.6)	101 (80.2)	30 (55.6)	37 (71.2)

Table 2: Comparison of Eye, Hand and Foot (EHF) Score and WHO disability grading from diagnosis to end of treatment.

WHO Disability Grade				Total
	At RFT			
At diagnosis	**Grade-0**	**Grade-1**	**Grade-2**	
Grade-0	117	08	01	126 (54.3)
Grade-1	09	35	04	48 (20.7)
Grade-2	00	11	47	58 (25.0)
Total	126 (54.3)	54 (23.2)	52 (22.4)	232 (100)
EHF Score				
	At RFT			
At diagnosis	0--3	4--6	7--9	10--12	Total
0—3	164	22	01	01	188 (81.0)
4—6	03	21	14	00	38 (16.38)
7—9	00	01	04	01	06 (2.59)
Total at RFT	167 (71.9)	44 (18.9)	19 (8.2)	02 (0.9)	232 (100)

Table 3: Logistic regression analysis of worsening of the EHF Score at the end of treatment.

Variables	OR (95% CI)	p-value	Adjusted OR (95% CI)	p-value
Age	1.03 (1.01-1.06)	0.003	1.03 (1.01-1.06)	0.002*
Illiterate	3.31 (1.66-6.59)	0.001	2.86 (1.50-5.46)	0.001*
MB type	4.04 (1.17-13.94)	0.027	4.43 (1.30-15.1)	0.017*
LL type	2.33 (0.98-5.55)	0.055	2.64 (1.14-6.10)	0.022*
3 or more nerves involved	1.78 (0.89-3.58)	0.102	1.80 (0.90-3.60)	0.095

Logistic regression analysis showed that age, being illiterate, and having MB type and LL type of leprosy were associated with worsening of EHF score (Table 3).

Discussion

The study findings highlight the significance of recording disabilities at the time of diagnosis and monitor for progression of the impairment status among people affected by leprosy. Though WHO disability grading is the one which is widely used in leprosy control programmes, EHF score is also a simple reliable tool for quantitative assessment of the impairment status (van Brakel et al 1999, Cunha De Souza et al 2016, Broekhuis et al 2000, Brandsma et al 2004). As noted by Cunha De Souza et al (2016), the WHO grading system cannot be utilized in rehabilitation to measure treatment effectiveness or to evaluate general disability (Nienhuis et al 2004). EHF score measures impairment at six specific sites, allowing it to identify where people affected have multiple needs of care and clinical

monitoring. This comprehensive assessment score identifies the specific areas on eye, hand and foot, where leprosy patients face limitations, thereby shedding light on the implications for the individual, their family, and the necessary health services. Therefore, our study emphasizes the necessity of re-visiting the role of the EHF score, a more sensitive score in monitoring disability progression among high-risk patients. The prevalence of visible impairments among patients who had completed MDT was at 46.1%, marginally higher than when they were first diagnosed (45%) which was similar to studies undertaken at other specialized leprosy centres in India (Ramasamy at al 2019, Govindharaj et al 2018). This might be due to the typical trend of referral of leprosy patients with disabilities and leprosy-related complications, from the general health system, to such specialized secondary leprosy referral centers for managing the complications.

We found that 54.03% of patients had no change, 7.3% showed improvement, and 38.3% experienced worsening impairment status as measured through EHF at the end of the treatment. These findings highlight the need for periodic monitoring of EHF score to address the progressive nature of leprosy-related disabilities (Mahajan et al 2021, Lockwood & Suneetha 2005, Scollard 2019). A study conducted in Ethiopia, the AMFES study, showed that out of 229 patients who were impaired at diagnosis, 42.3% had improvement, 44.9% remained the same, and 12.6% had worsened at the end of treatment as measured through EHF score (Meima et al 2001). Similarly, a study conducted in Nepal at nine mobile clinic treatment centers showed that out of 396 individuals who were diagnosed with disability, 49.2% had improvement, 30.3% remained the same, and 20.5% had worsened after two years of MDT (Heidinger et al 2018). However, in the present study, out of 107 patients who presented with impairments at the time of diagnosis based on EHF score, only 15.8% had betterment, 9.3% had no change and 74.7% had worsened at the end of the treatment. This could be due the reason that the study cohort majorly included the patients who were referred to the study site because of leprosy related complications at the time of diagnosis (Table 1).

Similar to the other studies, we found increasing age, being diagnosed with multibacillary and lepromatous type of leprosy, associated with worsening of EHF score highlighting the importance of early detection to mitigate the risk of disability occurrence and progression (Heidinger et al 2018, Ramos & Souto 2010, Monteiro et al 2013, De Paula et al 2019). Interestingly we did not find any statistical association between the presence of leprosy reactions (OR: 1.43; 95% CI: 0.70-2.90, p=0.31) and EHF progression, which could be attributed to the regular practice of the study center, treating leprosy reactions with corticosteroids and patient health education ensuring the treatment compliance as 25% of the 64 patients who had reactions and treated with steroids showed improvement in their impairment status. However, we found the worsening of EHF Score was associated with the literacy status, those who were illiterate had higher chances of worsening, highlighting the need to investigate the underlying causes, potentially related to more inclusive communication strategies.

Despite the importance of education on self-care, the study findings revealed that there is no difference in the worsening of sensory function among patients who received such education and those who did not (Neves et al 2015). It was also observed that the EHF score is better than disability grade for observing the evolution of functional and/or sensory changes in leprosy patients during follow-up by the

health services, especially after discharge from multidrug therapy (Neves et al 2015). This also indicated the need for a regular nerve function assessment and constant monitoring in addition to the health education on self- care, among the people affected by leprosy during and even after completing treatment. This could be done by investing in community-based assessment approaches and enhancing the access to nerve function assessment and foot care at all levels of health care.

Limitations:

The study was conducted in a secondary level leprosy care center. People affected by leprosy at this center are typically referred with disabilities and complications, which is evident from a high percentage of participants that had a disability at the time of diagnosis. Therefore, the study cohort inherently had a higher risk of further complications. The current study was a retrospective study with no follow-up details after RFT. Further prospective studies are underway to determine if the EHF grading system is better than the WHO disability grading system.

Conclusion:

In conclusion, our study findings underscore the need for utilizing the Eye, Hand and Foot score in addition to WHO disability grading system for monitoring disabilities in the leprosy control programmes. In the study, we reported that 38.3% of the people affected by leprosy had worsening of their impairment status, emphasizing the need for sustained -treatment care, early detection, patient education, and tailored approaches such as community-based testing, for high-risk leprosy patients.

Acknowledgement

The authors thank and acknowledge Indian Council of Medical Research (ICMR) for funding this project under the Senior Research Fellowship Program. We thank Mr. Zakaraiah for their support during the conduct of the study.

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How to cite this article : Pilaka KR, Pallapati MS, Simic M et al (2025). Revisiting the Eye-Hand-Foot Score as a Simple Tool in Assessing the Disability Progression in Leprosy Patients in India. *Indian J Lepr.* **97**: 163-173.