**Poster Presentations POD**

**P-218**

**Predictive Factors in the Evolution Disability Grade of Leprosy Patients Attended in the Health Center/Belo Horizonte – MG, from 1993 to 2003**

Soraya Diniz Gonçalves¹, Rosana Ferreira Sampaio¹ and Carlos Mauricio de Figueiredo  
E-mail: sorayadiniz@yahoo.com.br

**Aim**: The aim of the present study was to determine the predictive factors which contributed to change in the WHO disability grade of leprosy patients attended by the physiotherapists of Barreiro Health Center /Belo Horizonte-MG from 1993 to 2003. The retrospective cohort involved 595 patients. **Methodology**: A descriptive analysis of the sample was made. Later a univariate analysis, and a multivariate analysis, through the ordinal logistic regression model, to verify the predictive factors of disability at diagnosis. Finally, the disability grade at diagnosis and release from treatment were compared using the marginal homogeneity test, followed by a univariate analysis, and a multivariate analysis using the CHAID tree. **Results**: Gender, age and number of nerves involved were predictive factors for the disability grade at diagnosis. A positive dynamics was verified regarding change in disability grade, when comparing diagnosis to release from treatment. The disability grade at diagnosis is the main factors that predict the evolution of the disability. The present study showed the need for early diagnosis of neuropathy as well as an efficient association of pharmacological and non-pharmacological treatment.

**P-219**

**Census of Disabilities of Hansen’s Disease in the State of São Paulo in the Year, 2005**

Wagner Nogueira  
E-mail: wagwag@uol.com.br

**Objective**: describe the prevalence of disabilities for Hansen’s disease in the State of São Paulo in the year of 2005. **Methodology**: The source of information was a database of the evaluations of disabilities of people burdened with Hansen’s disease that were in treatment or had obtained cure and received treatment over the last three years. 4072 formularies were analyzed being 1872 (46%) in PQT and 2195 PQT cone. The frequency of modifications of the nose, eyes, hands and feet were calculated. **Results**: Of the 4039 formularies that were selected 3436 (85%) were registered five years ago or more. Almost 44% of cases presented some degree of disability, being 21% with moderate or severe disability. Through the SINAN-Hansen’s disease, 7.7% of new cases were second degree of disability and 9.4% were noted at the moment of the discharge form the program in 2005. An ocular evaluation showed 6.7% of disability of the second degree and 0.9% of severe visual deficiency. The cases with some degree of disability of the hands was 23.5% and 34% of the feet. Both regional have second degree incapacity in 10% of cases. **Conclusions**: The existing information about disability secondary to Hansen’s disease, processed through SINAN-W showed differences and very little specificity when compared to the informations obtained by the Census-2005. This gathering of informations gave the opportunity not only to evaluate more precisely, like also allowed a study of a segment of the population not collected by our formal information system and that also required preventive, curative and rehabilitation activities. The strategy used can help in the planning and necessary definitions for the actions in primary care and in activities of medium and high complexity.

**P-220**

**Ulcers In Leprosy Patients: Clinic-Epidemiological Evaluation and The Use of Low Level Laser Therapy**

Josafá Gonçalves Barreto¹,² and Claudio Guedes Salgado¹,²  
¹Laboratório de Dermato-Imunologia UEPF/UFPA/NUC, Marituba, Pará, Brasil, ²Departamento de Patologia – UFPA, Belém, Pará, Brasil, ³Universidade Federal do Pará – Campus Universitário de Castanhal, Pará, Brazil

Neuropathic ulcers are one of the most stigmatical sequelae of leprosy, but little is known of the clinical and epidemiological aspects of this process. The main goal of this study was to analyze clinical and epidemiological characteristics of patients attended at the dressing service of Dr Marcello Candia Reference Unit in Sanitary Dermatology of the State of Para (UREMC) in Brazil. Anamnesis, identification of the regions affected by the lesions, photographic register, evaluation of the ulcer area with ImageTool 3.0 and depth measure were done in 51 patients. The mean age was 59.9 yo and 78.4% were males, with a mean period of 27.6 years of diagnosis and 11.6 years of discharge by cure. A total of 97 lesions were identified, 54% on the plants and 40% on the ankles, 4% on the dorsal part of the feet and 2% on the hands. Mean evolution period of the ulcers was 97.6 months, area 7.3 cm² and depth 6.0mm. Low level laser therapy has been used 3 times a week in 13 patients, but until now there is no evidence of improvement more than the control group. **Acknowledgments**: This work was supported by Secretaria de Ciencia, Tecnologia e Insumos Estratégicos, Ministério da Saúde do Brasil, by Conselho Nacional de Pesquisa do Brasil (CNPq) and by Financiadora de Estudos e Projetos do Governo Federal, Ministério da Ciência e Tecnologia (FINEP 1460/03). **Key-words**: leprosy, ulcers, low level laser therapy.
Sensory Impairment of Ulnar, Median & Radial Nerves on Volar & Dorsal Aspects of Hands of Hansen’s Disease Patients in Israel

Hanna Melchior and Ruth Wexler
Israel Hansen’s Disease Center, Israel Ministry of Health, Jerusalem, Israel
E-mail: melchior@netvision.net.il

Introduction: The aim of this study was to describe sensory impairment (SI) as detected by Semmes-Weinstein Monofilaments, in the ulnar, median and radial nerves on both volar and dorsal aspects of the hands and compare the frequency of SI between the nerves on both aspects. Methodology: A cross-sectional study of 159 patients registered at The Israel Hansen’s Disease Center was performed. Three sites were tested on both volar and dorsal aspect for each nerve. Results: SI was significantly more frequent on the dorsum of the hands. The frequencies for SI for the nerves in descending order were: The dorsal ulnar 52%, radial 44%, ulnar volar 35%, median dorsal 31% and median volar 22%. All statistical analysis using different outcome measures pointed out the same results. Conclusion: SI on dorsum of hands occurs more frequently than on the volar aspect, therefore dorsal sensory testing should always be tested and even precede volar sensory testing. Key words: sensory testing, dorsal sensation.

Trend In Foot Disability Among New Leprosy Patients Attending A Referral Hospital In Nepal

Ruchal SP and Lewis Timothy
Anandaban Leprosy Hospital, P.O. Box 151, Kathmandu, Nepal
E-mail: Anandaban@injnepal.org

The purpose of this study was to assess the prevalence and severity of foot disability among new leprosy patients over the years for appropriate intervention. All new leprosy patients diagnosed from 2002 onwards in Anandaban hospital were enrolled in this study. WHO disability grading and ten point disability coding were used to measure the severity of foot disability. On an average 18% of new leprosy patient had grade I and 12% had developed Grade II foot disability at diagnosis. MB and old patients above 46 year of age had suffered more foot disability in comparison to PB and young patients. There is no significant change in the trend of prevalence over the years. Foot disability among new leprosy patients is significantly high in comparison to national figure (4.8% Grade II disability). Key words: foot disability, trends in disability.

Patients’ Self-Reported Symptoms as Indicators for Change in Nerve Function in Leprosy: Conclusions from the INFIR Cohort Study

PG Nicholls1, WH Van Brakel1 and WCS Smith1
1 Department of Public Health, University of Aberdeen, Scotland, 2 KIT, Amsterdam, The Netherlands
E-mail: p.nicholls@soton.ac.uk

The objective of the INFIR Cohort Study was to evaluate a range of neurological assessments as indicators of early changes in nerve function in leprosy. A full range of nerve function assessments was made monthly in the first year and bi-monthly in the second year of follow-up. These included clinical, nerve conduction and thermal sensation assessments. In addition, patients were asked to report any recent weakness, decreased sensation, dryness, paresthesia or nerve pain in bilateral upper and lower limbs. Using monofilament and voluntary muscle testing as the gold standard a series of analyses has been completed that assess patients’ self-reported symptoms as predictors of change in nerve function or the onset of a reaction. An initial analysis compared self-reported symptoms with nerve function and reaction status at time of diagnosis. A second analysis assessed the predictive value of self-reported symptoms in advance of incident reactions. Finally, the analysis was extended to assess the relationship between self-reported symptoms and changes in warm and cold sensation and measures of sensory and motor nerve conduction. Conclusions draw attention to self-reported symptoms that are related to changes in nerve function requiring diagnosis and treatment.
Limitations of Activities of Daily Living and Social Participation in Dutch Leprosy Patients with Impairments

FJ Slim1, R Keukenkamp1, CHM van Schie1, WR Faber2 and F Nollet2
1Department of Rehabilitation Medicine 2 Department of Dermatology Academic Medical Center Amsterdam, The Netherlands
E-mail: fj.slim@amc.uva.nl

Limitations of activities of daily living and social participation in Dutch leprosy patients with impairments. Introduction Leprosy related neuropathy leads to impairments such as skin lesions, hand and foot deformities and eye lesions. Impairments may result in limitation of activities of daily living and restrictions in social participation. Purpose of this study was to do a survey on the prevalence of impairments and their association to perceived restrictions in participation in leprosy patients. Methodology: Prevalence and severity of impairments was assessed in Dutch leprosy patients using a purpose-designed questionnaire. Perceived restrictions in participation were studied using the Impact on Participation and Autonomy questionnaire (IPA). Results: Of 82 returned questionnaires (61% response rate), 93% of the patients reported one or more impairments; 93% foot, 89% hand and 68% eye impairments. WHO disability grading: 9.8% had grade 0, 18% had grade 1 and 65% had grade 2 disability. IPA showed no differences in perceived restriction in participation between grade 0, 1 or 2. Perceived restriction in participation was lower compared to patients with other chronic diseases. Conclusions: Although the majority of patients suffered from severe impairments, they did not seem to perceive severe restrictions in participation. Whether this indicates that patients are not experiencing problems also depends on the social impact of leprosy, which is under investigation. Key words: Neuropathy, impairments, leprosy, disabilities.

Self Care Groups and Ulcer Prevention: The Okegbala Experience

Jannine Ebenso, Lawrence T. Muyiwa and Bassey E Ebenso
The Leprosy Mission, PMB 179 Minna, Niger State, Nigeria
E-mail: jannine@lepros.org

Introduction: The study looks at the impact of plantar ulcer prevalence in 3 self Care groups in Okegbala Community, Kwara State Nigeria from 2004-2007. Methodology: 24 people affected by leprosy attending 3 self care groups in Okegbala Community participated in the study. The study combined quantitative data from impairment and admission records, with semi structured interviews of group members, 3 group discussions and 10 key informant interviews. Results: 50% of group members who had ulcers in 2004 had no ulcer by May 2007. Mean re-admission interval for ulcers among group members has increased from 11 months between 2000-2003 to 18 months between 2004 and 2006. 100% of group members feel that they are now able to care for themselves and prevent and heal ulcers. 95.5% feel that their physical health has improved as a result of being a member of the self care group. Conclusions: Self Care Groups have had positive impact on the prevalence of plantar ulcers among residents of Okegbala Community. Keywords: Self Care groups, ulcers, Nigeria.

Effectiveness of POD Services by Community and GHCS

V. Nagendrawa Rao, Priya Kanta Samal and AKB Deo
LEPRA Society, Beside Fire Station, N.H-6, PO: Bargarh, Orissa, India
E-mail: leubargarh@leprasociety.org

Introduction: LEPRA Society started a community based leprosy project in October, 2001 with a population 369357 and the disability rate of 6.1. One of the important activities of the project is to involve community and GHC staff in POD care. Accordingly the community and GHSS was prepared and the POD care is transferred. The objective of the study is to assess the adequacy of community service on the POD care. Methodology: The study was carried out to know the status of 1063 patients managed by 74 POD kit holders under 20 Health Resource Centers (HRCs). The years 2002 to 2004 were spent in selection of stake holders, capacity building and conducting POD care along with stake holders. During 2005, activities have been transferred to community along with 74 POD kits of self-care and dressing material. Results: The effectiveness of service provision in 2006 is as follows:

- 254 patients (23.9%) have become self reliant in self-care practices,
- Care of 221 patients (20.8%) is taken over by partners
- GHC staff is taking care of 167 patients (15.7%),
- HRCs are taking care of 113 patients (10.6%),
- The project is taking care of 308 patients (29%),
- 54 new nerve function impairments recovered.

Conclusion: About 70% of POD care is being shouldered by the community. Key words: Disability rate, POD, HRC.
Changes in Nerve Impairment During MDT

M Uma, P Barkataki and PSS Rao
The Leprosy Mission Wellesley Bailey Vocational Training Center, Faizabad, Uttar Pradesh, India
E-mail: tmvtfaizabad@tlmindia.org

Multidrug therapy (MDT) has proven effective in its bactericidal action and stopping the progression of the disease. However, some patients are liable to show no improvement or even degrade while on MDT. In order to investigate the extent of this problem, untreated leprosy patients attending our referral hospital were studied in terms of WHO grade of disability, EHF score and BI at start of MDT and at RFT. A retrospective cohort study was done on a sample of 210 new leprosy patients, 143 male and 67 females who completed MDT during 2006-7. There were 15(7%) children. 186(77%) were MB and 69(33%) had Grade 2 disability. Only 118(56%) had an EHF score of 0 and in 173 (82%), had negative bacterial index. At RFT, the WHO grade was unchanged in 179 (85%) patients, improved in 26(12%) and deteriorated in 5(2.4%) patients. In EHF score, at RFT, 157() remained unchanged, 40() improved and 13 () deteriorated. In Bacterial index, there was decline in 31() and a slight increase in 2() patients. These findings are presented by age, sex and type of leprosy and the implications discussed. It is necessary to ensure that patients show improvement while on MDT, and investigate cases that deteriorate. **Key words**: nerve impairment, MDT in leprosy.

Footwear in Leprosy

AJ Brightwin, Kumar Archana, Sandeep Kumar and PSS Rao
Bethesda Leprosy Home & Hospital, Champa, Chattisgarh, India
E-mail: tlmchampa@tlmindia.org

**Introduction**: The objective of the study is to find out the most suitable or effective footwear to prevent plantar ulcer in leprosy patients with anesthetic feet. **Methods**: A single centre based study of 50 leprosy patients with anesthetic feet, in TLM hospital Champa were followed up around 4 months. Those leprosy patients with anesthetic feet without ulcer and willing to be enrolled were eligible. All the patients undergone Foot Posture Index and podiatry assessment (Redmond et al, 2004), and calculated the pre-intervention foot score. They were allowed to select their own suitable footwear by demonstrating some models in the OPD. All those patients were followed up on their visit to OPD around once in 2 months for about 4 months. Those were assessed for the foot score and history of plantar ulcer incidence in between the period of study. **Conclusions**: Most of the patients received traditional MCR footwear still develops plantar ulcers, and it seems that most of the patients are not using the traditional MCR due to its design and may be social stigma. So, there is a need to give freedom for the patients to select their own suitable footwear which the patient feels comfort. **Key words**: footwear in leprosy, MCR in leprosy.

Reasons for the Failure in Self Care of the Feet

V Arun Kumar and N Rao
TLM Trust India Hospital, Ramachandrapuram-533255, Andhra Praesh, India
E-mail: tlmramachandrapuram1@tlmindia.org

In order to know the common reasons for failure in practice of self care among the Leprosy affected, a questionnaire study has been conducted through developing a profile of those who develop recurrent ulcer and those who do not, for comparison in terms of knowledge of self care and other factors. The data were collected from ulcer patients living in the colonies as well as those living outside the colonies, randomly selected from the Hospital readmission list by door to door. Various reasons for failure in the self care, expressed by the respondents include that they had not been aware of the importance and benefits of self care practices. Some express that they are not having a sufficient knowledge on self care. And some feel that they were neglected due work and society. Another group of people are of the opinion that individual practice of self care is difficult in self care practice, which could be the main reason for failure. The paper also presents other causes for negligence of self care, which may help to design effective methods of self care and teaching in future in order to prevent recurrent ulcer. **Key words**: MCR footwear, reasons for failure.
Neurolysis in Patients with Leprosy: An Alternative Treatment in Resistant Neuritis the Corticotherapy

Maria de Jesus Freitas de Alencar, Alberto Novaes Ramos Jr., Jaqueline Caracas Barbosa and Jörg Heukelbach
Department of Community Health, School of Medicine, Federal University of Ceará, Fortaleza, Brazil
E-mail: jesusalencar@yahoo.com.br

In Brazil, there are still many people living with disabilities, resulting from chronic leprosy neuritis. Oral corticosteroid therapy is the standard treatment of neuritis. In case of unsuccessful treatment, neurolysis may be indicated. To assess the degree of sensory and motor loss before and after neurolysis, we performed a retrospective study. Leprosy patients were included, that had received neurolysis of peripheral nerve trunks in the reference hospital of Rondônia State (North Brazil). To assess semi-quantitatively the degree of sensory and motor deficiencies, we created an ordinal score based on the clinical evaluations. Of the 118 individuals included (in total 297 neurolyses), 81.4% patients were classified with borderline leprosy. Only 53.4% of the patients were under multi-drug therapy at the moment of neurolysis. The median time between the first episode of neuritis and the surgery was one year. Ninety % of patients with severe sensory deficiency before surgery presented with an improved score after neurolysis. The clinical classification and the period between the first episode of neuritis and surgery did not modify the clinical result significantly. The data of the present study indicates that neurolysis is of important benefit in leprosy neuritis, even after a prolonged period of neuritis. Keywords: Hansen's Disease; Neurolysis, Neuritis.

Retrospective Analysis of Cases with Nerve Function Impairment Treated in LEPRO HYDERABAD Leprosy Referral Centre in an Integrated Leprosy Programme Setting

SL Narasimha Rao, Aruna Bala Chaudhary, B Vijayakrishna, Ranganadha PV Rao, Sundaresh Peri and V Satyanarayana
LEPRA Society, HYLEP, Hyderabad, India

Following integration of leprosy services into general health care, MDT services are provided at urban health posts. Patients presenting with complications are referred to LEPRO HYDERABAD leprosy centre for nerve function assessment and treatment. The centre caters for specialised treatment for complications particularly those with nerve function impairment. During the study period of four years from 2003 to 2006, 791 patients were registered for MDT. Among these 182 were referred for treatment of complications. The centre registered 195 cases from villages outside the district of Hyderabad In addition to the 596 referrals from Hyderabad. These 791 cases were assessed for nerve function impairment. Cases with nerve function impairment of 6 months duration were treated with a standardised regimen of steroids and supportive physiotherapy and provided suitable foot wear. Nerve function status was assessed at the end of 6 months and 24 months using a standardised nerve function assessment protocol including sensory testing with SW monofilaments and muscle function testing with MRC grades. Age and gender distribution, clinical classification, MDT status of these 791 cases are presented. Nerve function impairment was observed in 137 cases of whom 86 showed improvement subsequently. Observations from analysis of nerve function status at the end of 6 months and 24 months will be presented in the paper.

The Role of Splints in Prevention of Disabilities in Patients with Leprosy under DPMR Programme

Kalyana Ganapathy Subramanyam, August Beine, P Purusotham Rao and V Nageswara Reddy
Sivananda Rehabilitation Home, Kukatpally, Hyderabad 500 072, India
E-mail: sivanandahome@gmail.com

Various types of Physical Medicine and Rehabilitation Techniques can prevent correct, or reduce disabilities in patients affected by Leprosy; through teaching, treating and helping the patients, they can be made to live as normal people live, SPLINTS play an important role and often the most essential one among the physical techniques used. SPLINTS are effective economical convenient to usea dn well accepted by patient not only in the hospital set up but also in the field level, on various states of leprosy like, Neuritis, Early Paralysis, Early Paralysis established paralysis, during surgery, pre-operative, post operative, home self care, Neuropathic foot, non healing. Non infected ulcers fractures and Reactional state. The type of SPLINTS used in each of above mentioned condition and resultant effects are shown as exhibits (models and photos). Patient, who have used these SPLINTS in our centre have shown improved physical abilities and are a very satisfied lot. This has encouraged us to share these effects with all PARTNERS who are engaged in DPMR Programme in national level not only in Leprosy but in General Health Care Rehabilitation programme as well.
Knowledge and Practice About Wound Prevention and Management Among Patients Affected by Leprosy

G Pickering, Y Sathiaraj and G Norman
Schiefelin Institute of Health Research & Leprosy Centre, Karigiri, India
E-mail : normangif@yahoo.co.in

The prevention and management of wounds and injuries in persons affected by leprosy is an important component of any Prevention of Disability (POD) program. After integration of leprosy into the general health services in 1997, prevention of impairment and disability (POID) services were provided in 3 out of the four blocks of the erstwhile Gudiyatham Taluk. A community-based POID program was initiated in 2000, which involved visiting patients at home based on a priority list prepared. They were taught self-care, self wound management, and efforts were undertaken to involve the family and community. The objective was to assess the knowledge and practice about wound prevention and wound management among persons cared for through the CBPOID program (Block 1) and compare it with those who did not have a CBPOID program after integration (Block 4). From our database 50 persons from block 1 and 50 persons from block 4 were selected randomly. A questionnaire on knowledge and practice of wound prevention and management was administered. The data collected is being analyzed and the results will be reported.

Disability Prevention and Medical Rehabilitation Program – A Camp and Workshop Approach to Integrate These Services

Atul Shah and Necla Shah
Novartis Comprehensive Leprosy Care Association, Remi Bizcourt, GN-01, Veera Desai Road, Andheri (W), Mumbai 400058, India
E-mail : clcp@vnsl.com

Disability Prevention and Medical Rehabilitation program aims at activities which result in prevention of impairments and disabilities, correction of existing disabilities and prevention of worsening of disabilities. It aims at decreasing the disability load in the community. Medical Rehabilitation focuses on bringing back the functional abilities as well as cosmetic correction of the affected limbs resulting in the removal of stigma associated with visible disabilities followed by economic rehabilitation so that persons can start using reconstructed or healed limbs for gainful employment. NCLCA supported reconstructive surgery workshops for persons affected by leprosy with visible disabilities e.g. claw hands, foot drop, lagophthalmos, plantar ulcers and facial paralysis at the Tata Department of Plastic Surgery, Grant Medical College and Sir J.J. Group of Hospitals, Mumbai, in collaboration with the Directorate of Health Services, Government of Maharashtra. These workshops were carried out with the objective of reaching reconstructive surgery to visibly disabled cases as integrated approach and to transfer surgical skills to resident doctors and plastic surgeons who participated from various hospitals from the city like St. George Hospital, LTMG Hospital, Nair hospital, KEM Hospital, etc. The patients referral for reconstructive surgery was the outcome of camps conducted by NCLCA for about 150 leprosy disabled in Thane, Bhivandi, Vasai and Kalyan in Maharashtra. The follow up camps has shown very encouraging results in terms of improvement in the function and cosmetic correction as well as thrown light on the necessary insight in carrying out this activity in other hospitals in an integrated manner. The health services staff visited them and learnt on the rehabilitation needs for economic rehabilitation to be offered by NCLCA. One program of economic rehabilitation was carried out by NCLCA at Vasai to be followed at other places. Good results are cited and important lessons learnt are enumerated.

[255]
Review of Comprehensive Care Activities in Sri Lanka

Atul Shah¹, Neela Shah¹ and Sunil Sittinayake²
¹Novartis Comprehensive Leprosy Care Association Remi Bizcourt, GR-01, Veera Desai Road, Andheri West, Mumbai 400 058, India,
²Anti Leprosy Campaigng, Sri Lanka
E-mail : clcp@vsnl.com

With the excellent results of Comprehensive Care in India, the Novartis Foundation for Sustainable Development introduced the disability prevention, correction and care at Sri Lanka in 1993. Comprehensive care entails reaching the disability prevention, correction, care and rehabilitation services in conjunction with the treatment of leprosy and thereafter. The program adopted a multi-pronged, systematic approach. It standardized the data collection and analysis of the overall burden of disability in an area for better planning. It trained health care staff such as orthopedic and plastic surgeons, medical officers, general health workers and physiotherapists. The training involved all aspects of care including MDT, reaction management, splints, grip-aids, ulcer care kits, MCR footwear, etc along with reconstructive surgery and rehabilitation. Field area camps by the authors were mainstay to deliver the disability care services and provide on the job training. Camps were arranged and follow up was carried out by the PHIs and REs. Following the integration of leprosy into general health services, the physiotherapists and dermatologists were trained to establish disability care at their departments as first level of reference. People’s participation in their own health is an essential component. With the application of splints hand deformities have improved in nearly sixty percent of cases. Nearly 40 percent cases empowered with the ulcer care kit could heal their ulcers without attending any clinic or hospital. About five hundred cases were provided MCR footwear from India. However, what is more important is that all splints, self-care kits and MCR footwear are being made locally. Reconstructive surgery was initiated at NHSL since a few years ago and is gradually being extended to district level with the training of interested orthopedic and general surgeons. The overall response has been most encouraging, as in the high endemic district of Matara, an improvement in the condition of 90% of cases disabled by leprosy has been reported. Review of activities demonstrate that patients now have better access to disability prevention, care and correction components even in the integrated system.

Advice to Follow to Prevent Deformity 17 ‘S’ Care

B Chandra Sekhar
Primary Health Centre, Yerraguntla, Kadapa District, Andhra Pradesh, India

2. Soaking in water 15 to 20 minutes daily.
3. Soften with oil to preserve moisture.
4. Scrapping with rough surface/cloth.
5. Shaving of thickened skin.
6. Sitting properly to prevent callosity.
7. Short Step at a stretch In Ulcer Develops.
8. Short time at a stretch.
9. Short distance at a stretch.
Strict bed rest.

Quality of Life, Perception and Function of People Affected by Leprosy, Submitted to Tendon Transfer Surgeries

Stela Neme Daré de Almeida¹ and Marcos da Cunha Lopes Virmond²
¹Instituto Lauro de Souza Lima – Bauru- S.P. Brazil, ²Instituto Lauro de Souza Lima - Bauru- S.P.- Brazil
E-mail : jorgeste.biv@terra.com.br, mvirmond@iisl.br

Reconstructive surgery (tendon transfer) to correct or minimize deformities and incapacities in leprosy can lead to important changes in the lives of people affected by this disease. This study aimed to describe the functional changes after tendon transfer in face, hands and feet of the affected people; to identify their perceptions to reconstructive surgery and to assess patients’ quality of life in the face of the changes occurred by the physical rehabilitation process. The following instruments were used: questionnaires (WHOQOL – Bref and Participation Scale), one question about what they expected from the reconstructive surgery and another one about the benefits of it; the Visual Numeric Scale, the Jebsen-Taylor test and goniometry for functional evaluation. The majority of the group revealed a good quality of life; they have a perception of improved cosmetic appearance and increased social inclusion. Key words : leprosy; quality of life; physical therapy; surgery.
Patient Satisfaction After Reconstructive Surgery Among Leprosy Affected Person in Anandaban Hospital, Kathmandu Nepal

Ram Babu Bista, Jaganath Maharajan and Arjun Karki
Anandaban Leprosy Hospital, P.O. Box 151, Kathmandu, Nepal
E-mail: physio@tlmnepal.org

Leprosy is a disease commonly affecting peripheral nerves which leads towards disability and deformities. Many disabled leprosy affected people have had disabilities corrected in Anandaban Hospital. One of the main aims of this study is to find out satisfaction after surgery among leprosy affected people. This study also helps to find out the role of different surgical and physiotherapy procedures among eighty three (83) leprosy affected disabled peoples. This study will not cover the actual situation of their living places. This study will be retrospective, assessing about eighty three (83) leprosy affected peoples who have been operated on in Anandaban Hospital during 2005 to 2007. Method has been used for satisfaction 0 – 10 standard scales. Result and findings will be discussed at presentation.

Improvement of Function of Hand After Reconstructive Surgery in Anandaban Hospital Nepal

Jaganath Maharajan and Sakalananda Shrestha
Anandaban Leprosy Hospital, P.O. Box 151, Kathmandu, Nepal
E-mail: anandaban@tlmnepal.org

In a six years period, 133 reconstructive surgeries of the hand were performed in Anandaban Hospital, Nepal. 5 doctors were involved in these operations. 85 surgeries were for correction of fore fingers and the remaining 48 surgeries were for opponens. The function of the hands was assessed one week prior to surgery. Then the subjects were taught exercises after 4 weeks from the date of surgery. Functions of the hands were assessed again after 8 weeks from the date of surgery. Second assessments were carried out after three months from the date of surgery. Results show that the recovery rate of the function of hands is variable depending upon the other condition of the hands. Key words: reconstructive surgery in hand, reconstructive surgery in leprosy.

Wound Coverage of Heel Ulcers in Anesthetic Feet in Leprosy - A Seven Year Study

Joshua, A Pathak and S Saha
The Leprosy Mission Premananda Memorial Hospital, 259-A, A P Chandra Road, Manicktala, Kolkata, West Bengal, India
E-mail: jerryjoshua@tlmiindia.org

Chronic heel ulcers are frequently seen problems in anesthetic feet in leprosy. Many flaps have been described in the management of small defects of the heel. These range from simple local flaps to micro vascular free flaps. In Premananda Memorial Leprosy Hospital, in the course of seven years (between January 2000 and December 2006) we have seen a total of 245 heel ulcers in anesthetic feet due to leprosy. 162 surgeries were performed on 129 cases. Procedures included calcaneal paring alone (8 cases), local rotation flap (51 cases), medial plantar artery island flap (49 cases), cross thigh flap (14 cases), and reversed sural artery flap (6 cases) as the first procedure. 32 cases underwent more than one surgery. The duration of ulcers prior to the surgery ranged from 1 month to 15 years. The follow-up period ranged from 1 month to 4 years. Healing time after the surgery ranged between 16 and 45 days. Complications seen included wound infection (9 cases), haematoma formation (2 cases), recurrence of a sinus (21 cases), partial flap necrosis (10 cases) and eczema of the flap (2 cases). Donor site problems were seen in medial plantar island flaps (6 cases). Recurrence was seen in local rotation flaps (10 cases) and in reversed sural artery flaps and cross thigh flaps (11 cases). Recurrence was not a problem with medial plantar artery island flaps. Key words: heel ulcers, flap surgery.
A Follow Up Study of Surgical Correction of Ulnar Paralysis

A Pathak, S Saha, N Mahato and Joshua
The Leprosy Mission Premananda Memorial Hospital, 259-A, Kolkata, West Bengal, India
E-mail: tinkolkata@tmindia.org

Introduction: Isolated ulnar paralysis is a common problem of the hand in leprosy. Over a period of 5 years between January 2001 and December 2005, 57 patients underwent surgery for the problem of isolated ulnar paralysis. Follow up period ranged between 3 months and 60 months. Active muscles used for transfer were middle finger superficialis in 4 cases, Palmaris longus in 29 cases, Extensor Carpi Radialis longus in 24 cases. Insertions were either to the lateral band of the dorsal expansion in 26 cases (of which 4 needed dorsal fixation of the lateral bands) and A1 pulleys in 31 cases. Methods: They were analysed comparing preoperative unassisted angles and post operative unassisted angles for appearance showing an improvement in all cases. Function was assessed by grasp contact, grasp power, pinch power and buttoning and unbuttoning, showing significant improvement in grasp contact and buttoning and unbuttoning and a status quo in grasp power and pinch power. Conclusion: Our results serve to indicate that tendon transfer procedures help in improving appearance and coordination of function, but not in increasing power. Key words: surgery, ulnar paralysis.

“Grip-Aid Kit” - A Simple Method to Facilitate Activity of Daily Living in Advanced Hand Deformities

Neela Shah and Atul Shah
Novartis Comprehensive Leprosy Care Association Remi Bizcourt, GR-01, Veera Desai Road, Andheri West, Mumbai 400 058, India
E-mail: eclp@vsnl.com

Epoxy resin grip-aids (Modulan®) were pioneered by Novartis Foundation for Sustainable Development orthopedic and leprosy handicaps. Though its importance can not be neglected, its non-availability due to high cost of production and shipping did not allow it to become household entity. M-seal®, the local epoxy resin is being used as substitute but has the same disadvantage of spending more time in its making and has to be tailor made for the deformity. Its application on many articles is also time consuming. Moreover, patient has to learn to adjust the deformities in the crevices of the mould on the article otherwise it may mismatch cause friction. In order to obviate these disadvantages, our research has resulted in prefabricated “Grip-Aid Kit”. The kit consists of a Grip-Aid made of Velcro and rubber which can be easily worn on the absorbed or short stumps of the hand. It consists of utilities like spoon, tooth brush, tooth paste, comb and a handle for holding glass which fits in to its straps. The learning curve is minimal and benefits are observed instantly. It does not have disadvantages of epoxy resin mentioned earlier. This innovative kit has been found extremely useful in the field areas, particularly for the patients with grossly deformed hands. It has been also used by us in burns and other trauma, thereby making it an integrated care modality. Patient acceptance is good and relatives and staff of the hospitals feel joyous that patient has attained ergonomic independence in activity of daily living. Results are encouraging. In this poster we make a case for its large scale adoption as modality of disability care and community based rehabilitation as this “Grip-Aid Kit” can be easily assembled.

Antimicrobial Drug Resistance in Bacterial Species Infecting Leprosy Plantar Ulcers

B Triveni1, BS Aparna1, Ananth Reddy2, K Srikanth1, KVSM Rao1 and KV Krishna Moorthy1
1Blue Peter Research Center, LEPRA Society, Cherlapally, Hyderabad- 501 301, 2Sivananda Rehabilitation Home, Kukatpally, Hyderabad, India
E-mail: triveni@bploperasociety.org

Background: Present study was undertaken to identify the bacterial species causing secondary infections of plantar ulcers and to evaluate the drug susceptibility profile. Methodology: Pus swabs from infected plantar ulcers of leprosy patients treated during 2004-2005 were studied. Inoculation of pus swabs on blood agar and Mc Conkey’s agar and antibiotic susceptibility tests by Kirby Bauer disc diffusion method, were carried out as per the standard techniques. Results: Out of 582 specimens studied 445 yielded bacterial isolates of different species. Proteus spp (40%) and Staphylococcus spp (30%) were the most predominant isolates followed by Enterococcus spp, Klebsiella spp, and Pseudomonas spp. Most of the isolates showed high degree of resistance to Tetracycline (81%), Co-trimoxazole (80%), Ampicillin (61%), Ciprofloxacin (60%) and Gentamycin (58%). Broad spectrum antibiotics such as Amikacin (31%) and Ceftriaxone (33%) were inhibitory. Conclusion: Empirical antibiotic treatment with commonly used antibiotics may not be sufficient to treat infected plantar ulcers of leprosy patients. Periodic studies on bacterial species and their antimicrobial resistance patterns may help in developing antibiotic policies, specific to each clinical setting. Key words: Plantar ulcers, drug susceptibility, Proteus spp, Amikacin.
A- Wave and Pain in Leprosy Neuropathy

IA Garbinho, MCL Virmond, MH Salgado, S Ura and B Naafs
Rehabilitation - Instituto Lauro de Souza Lima - Instituto Lauro de Souza Lima - Bauru/ São Paulo Caixa Postal: 3021 Bauru, 17034-971, Brazil
E-mail: gabinetovia@terra.com.br

Introduction: Because of its pathophysiology the A-wave was chosen to identify parameters related to neuropathic pain (NP) in leprosy reactions. Method: In a clinical trial to assess steroid treatment, 28 ulnar nerves, 19 T1R and nine T2R, were followed-up during six months. The presence of A-wave was checked in samples of 20 F-waves at each nerve assessment. The clinical and the neurophysiological findings were compared, in order to note the positive and negative concordances between neuropathic pain symptoms and A-wave: before and after steroid treatment. Results and Conclusion: Both reactions presented high frequency of A-wave but the parameters concordances before and after steroid treatment were encountered in the T2R group, they were positive in 44% before treatment and this was not observed after treatment. Negative concordances were not present before treatment but were most frequent at the end, 89.9%. In the T2R group double correlation was therefore observed, positive before treatment and negative after. The results were statistical significant suggesting an association between the A-wave and NP in T2R. Key words: leprosy, neuropathic pain, neurophysiology, A-wave, axonal reflex.

The Sensitivity of Leprosy Patients Evaluated With the Electronic Esthesiometer

Marco Andrey Cipriani Frade
E-mail: mandrey@fmrp.usp.br

Objective: To propose an electronic method for the evaluation of leprosy patients and to compare it to the use of Semmes-Weinstein monofilaments. Methods: Thirty patients were evaluated at the Dermatology outpatient clinic of HCFMRP-USP. Each patient was consecutively evaluated by both methods at hand and foot test points. The intraclass correlation coefficient (ICC) was calculated to determine the variability of the electronic measures and the kappa coefficient was calculated to determine the agreement between methods according to their categories (altered and non-altered sensitivity). Results: The ICC was approximately 1, demonstrating repeatability. The kappa coefficient showed more than 75% and 63% agreement in the hand and foot points, respectively. The mean agreement between the 2 methods for the 7 points of the right and left hand was 77.14% and 75.71%, respectively. The mean agreement for all 10 points was 74.33% and 63.66% on the right and left foot, respectively. In cases of disagreement on the right and left foot there was a predominance of 90.91% and 84.25%, respectively, for the detection of altered sensitivity by the electronic esthesiometer, with no detection by the monofilaments. Despite the agreement of altered and non-altered sensitivity determined by the kappa method, the absolute values obtained by the two methods were different, probably because of variables of each method. Conclusion: The results obtained with the electronic esthesiometer seem to be reliable because of the strict method used for its application. Thus, the electronic esthesiometer proved to be a method of easy application, capable to evaluate the alterations of sensitivity in leprosy patients.

Effectiveness of Camp Approach in Detecting Early Leprosy Case of Foot Disability

Sharan P Ruchal, Tim G Lewis, UR Pant, IB Tamang, Madan Ghimiri, BR Khanal, RC Paudel, BK Athet and K Shreshta
Anandaban Leprosy Hospital, P.O. Box 151, Kathmandu, Nepal
E-mail: training@tinnepal.org

Purpose: Foot camp was a new method that Anandaban hospital, Nepal used to reaching out in the community to catch up hidden cases of leprosy at early stage with minimal disability. And to provide self care teaching and necessary intervention to those with physical disabilities. Methods: 23 camps were conducted in 10 districts of central development Region of Nepal since 1999. Four hill and six terai districts were covered. Expert team from Anandaban hospital and concerned government health staff is used. Result: New leprosy cases from small focus group with foot disability were detected. Defaulter, Relapse and reactions were identified and managed to prevent and minimize disability. More new cases were found in terai district. Disability rate was found higher than expected. (28 % among new cases had grade I and 38 % had Grade I disability). Conclusion: This model of reaching out to the community was cost effective. Patients living in rural districts had their leprosy diagnosed in their own communities. Practical demonstration about self care for disability prevention was rendered on the spot. Those who required admission and intervention were advised and referred to Anandaban and other appropriate hospital.
Structured Information Collection in the Evaluation of ‘Rehabilitation in the Community’ Programmes: Ten Lessons Learnt During Actual Evaluations

Johan P. Velemel1, Harry Finkenflügel2 and Huib Cornielje1
1 Evaluation & Monitoring Network, The Leprosy Mission International, PO Box 902, 7301 BD, Apeldoorn, The Netherlands, 2 Institute for Health Care Policy and Management Erasmus Medical Centre, Rotterdam, The Netherlands
E-mail: velemel@ems.tim.nl

Purpose: Earlier, we proposed two flow charts that permitted a characterisation of rehabilitation programmes and indicated the information that should be collected. We present the application of this methodology in five actual evaluations of programmes aiming at socio-economic rehabilitation of persons affected by leprosy. Method: We compared the information as required by the flow charts and presented in the evaluation reports asking: “Does this methodology adequately describe and reveal all relevant aspects of the rehabilitation programme?”. Results: Use of the flow charts led to discussion between evaluators and programme staff about how each would characterise the programme; this was a valuable step in the evaluation process and provided insight to the staff into their current practices and aspirations. The rehabilitation services as such were well-described in the evaluation reports. More attention could have been given in the evaluation reports to:
- the programme environment.
- provider-client relationships
- linkages with other rehabilitation programmes and community organisations.
- questions of organisational capacity,
- systems to maintain and increase the quality of services.
- conditions and constraints imposed by donor organisations
In order to show their effectiveness, rehabilitation programmes need to develop simple information systems which show progress of clients towards their rehabilitation goals. Impact assessment one year after ending the intervention should include client’s psychological and social status. Conclusions: The original theoretical framework has proven its value in evaluation practice. The flow-charts accommodate a variety of programmes and address the specific aims, contexts and developmental stages of the programmes evaluated. These lessons learnt will further improve the usefulness and practical relevance of the methodology we proposed. (Disability & Rehabilitation, 2007, in press) Key Words: Rehabilitation in the Community, Evaluation, Information systems, Leprosy.

Empowerment of PWD Through SHG

M Ramesh, C Ashok, V Vinayagamoorthy and A Jeyabalan
TLM, CNI Bhawan, Delhi, India
E-mail: reception@tlmindia.org

The vision of the Project is to empower the Persons with Disability. The strategy we adopt is Self Help Groups. This study is to assess how far we could hold the PWD together whether they are able to be aware of their plight and will be able to analyze and find solutions and take their own initiative to change their situation. Conclusion: The PWD in the SHGs understood their plight to some extent and what has to be done to remedy that and what kind of system could be followed. However the members of the SHGs, because of their low academic standard and minimum exposure to outside world, becomes difficult to advocate and empower them and it becomes continuous process. Key words: empowerment of people with disability, self help groups in disability.

Steps Involved in Empowering Leprosy Affected Persons in A Leprosy Colony in India For Preventing Further Disability Through Self Care Groups

Mahato Margaret
TLM, CNI Bhawan, Delhi, India
E-mail: margaretmahato@tlmindia.org

Introduction: The purpose of the study was to determine if further disability could be prevented in leprosy colonies through self care groups by involving and empowering all members of the community; to evaluate the success of the steps involved - to determine what worked and what did not, and what lessons could be learned for future similar programmes. Methods: The main means of empowering those with impairment to prevent further impairment was through self care groups, attended not only by those with impairment but also by family members and the colony leaders. The volunteers also regularly visited the homes to train them in the home situation and to monitor the practice at home. Conclusions: The study showed that further disability; especially ulceration and its resulting mutilation could very definitely be reduced by involving all members of the leprosy colony community in the self care programme. Key words: Prevention of further disability, Self care groups, Community involvement, Family members, Community Volunteers, Ulcer reduction, Reduction in hospital admissions, Networking.
Why Most of The Leprosy Patients Do Not Want to Use MCR Footwear

Acharya Premananda and NK Nanda
The Leprosy Mission Hospital Purulia Leprosy Home and Hospital, P.O. Box no. 9, Purulia, West Bengal, India
E-mail: timpurulia@tamilindia.org

Nerve involvement leading to anesthesia is a cardinal feature of leprosy. One of the nerves, Posterior Tibial nerve often causes plantar anesthesia and in turn results in development of plantar ulcer. In order to prevent plantar ulcer in leprosy patients several stigmatized preventive and protective measures are practiced. Use of MCR footwear is one of the most effective methods in protecting anesthetic feet. However, leprosy patients often fail to understand the benefits of this footwear and often they are non-compliant due to some unknown reasons. Therefore, this study was designed to assess a number of 100 leprosy patients to know the probable reasons, which will be beneficial for our future guideline in preventive measure. The results will be discussed and presented in the Conference. **Key words**: reasons for not using, MCR footwear.

Sites of Ulceration in Anesthetic Feet

CS Robertson and JR Saliní
The Leprosy Mission Hospital, Shahdara Nand Nagri, Delhi
E-mail: tmsahadhara@tamilindia.org

Planter ulcers are major cause of mobility in patients with anesthetic feet. Apart from anesthesia other major causes of ulceration are neuropathic changes in the joints, claw toes. The majority of ulcers occur along the big toe tip, along the metatarsal heads, lateral boarder of the foot and the heel. In this study we have tried to identify the probable causes of ulceration rate of occurrence of ulceration at each site. **Key words**: ulcers sites, anesthetic foot.

Simple Self-Care Heals Common Secondary Disabilities In Leprosy

K Venkatasarma, C Maticham and L Ramachandran
1Medical Services (Lep), Salem district, India, 2District Leprosy Office, Salem, Tamilnadu, India, 3St. Mary’s Leprosy Centre, Arisipalayam, Salem 636009 Tamilnadu, India
E-mail: smcslm@otn.net

Secondary problems like dryness and ulcers in extremities are common problems in leprosy patients with peripheral nerve damage. Generally they seek medical treatment which will not help. They get acclimatized to live with the problem for the rest of their lives. Systematic approach was implemented (March 2004) through general health system in Salem district. Daily inspection, soaking, scraping, oiling and dressing were the procedures taught. A district level team consisting of Non Medical Supervisor and a Physiotherapy Technician organised training and supervision. The team trained 1643 health workers and 1832 persons with disability. Subsequent monitoring revealed that all health workers supervised the persons with disability regularly and 85% of them were found practising self-care regularly. Ulcers over the extremities healed in 89%. Simple self-care procedures can prevent and heal secondary problems in persons with leprosy related disability. The health workers in an integrated setup were capable of implementing self-care in leprosy. **Key words**: Leprosy, disability, self-care.
Topical Phenytoin in Trophic Ulcer

Prasad PYS, Kaviarasen PK, Yiswanathan P and Rehana Tipoo
RMMCH, Annamalai University, Annamalai Nagar-608002, India
E-mail: pravinmalpani4u@yahoo.com

Trophic ulceration, a common complication of leprosy is disabling, distressing and demoralizing for the patients. Factors such as focal hyposthesia, repeated trauma, autonomic disturbances of vessels, secondary infection and osteomyelitis have always been the major obstacles in the management. Aim: To evaluate the efficacy of topical phenytoin in trophic ulcers. Materials: 60 patients were selected who were having ulcers for more than one month and without bone involvement. Phenytoin dressing in zinc oxide cream was applied daily for 4 weeks. Parametric like reduction in surface area of ulcer and granulation tissue formation were noted. Results: 83.3% of patients showed reduction in size of ulcers in four weeks. Bacterial culture was positive in 75% and various organisms were grown in culture. 10% of patients who did not show improvement were all positive for gram-negative organisms. Four patients developed overgrowth of granulation tissue which is considered as a complication of this treatment. Conclusion: Topical phenytoin is a cheap, effective alternative dressing available for trophic ulcers in leprosy.

Effectiveness of POD Services by Community and GHCS

Nageswara Rao Velidi
Lepra Society, Bargari, Orissa, India
E-mail: leubargari@leprasociety.org

Introduction: LEPROA Society started a community based leprosy project in October, 2001 with a population 369357 and the disability rate of 6.1. One of the important activities of the project is to involve community and GHC staff in POD care. Accordingly the community and GHs was prepared and the POD care is transferred. The objective of the study is to assess the adequacy of community service on the POD care. Methodology: The study was carried out to know the status of 1063 patients managed by 74 POD kit holders under 20 Health Resource Centers (HRCs). The years 2002 to 2004 were spent in selection of stake holders, capacity building and conducting POD care along with stake holders. During 2005, activities have been transferred to community along with 74 POD kits of self-care and dressing material. Results: The effectiveness of service provision in 2006 is as follows: • 254 patients (23.9%) have become self reliant in self care practices • Care of 221 patients (20.8%) is taken over by partners • GHC staff is taking care of 167 patients (15.7%) • HRCs are taking care of 113 patients (10.6%) • The project is taking care of 308 patients (29%) • New nerve function impairments recovered Conclusion: About 70% of POD care is being shouldered by the community. Key words: • Disability rate, POD, HRC.

A Pragmatic Approach to Management of Disabilities in Field Areas

Atul Shah and Neela Shah
Novartis Comprehensive Leprosy Care Association, Remi Bizcourt, GR-01, Vaena Desai Road, Andheri (W), Mumbai 400058, India
E-mail: olcp@vsnl.com

Over the last two decades Novartis CLC Association has pioneered simple field based modalities of disability prevention, care and rehabilitation. This is towards the objective of making a significant and sustainable difference in the quality of life of person affected by leprosy through their treatment, as also their physical, economic and social rehabilitation. NCLCA was among first to introduce “Improving access to MDT” in low endemic area in Gujarat and Blister Calendar Pack in Goa. It is now a recognized fact that MDT prevents deformities and through this project it was possible to decrease the quantum of deformities. Another important step in decreasing the disabilities is proper management of reactions in leprosy. The training of staff and doctors in steroid therapy helps to prevent and/or reverse impairments and thus decreasing disabilities. The Novartis CLC Association’s package of key modalities of care includes inserts providing health education to patients with insensitive limbs to prevent injury, burns and ulcers, teaching patients physiotherapy exercises and providing prefabricated splints for hand and foot deformities to help in correcting disabilities and to be used as an adjunct to pre and post operative regimen, providing grip-aids to enable people with advanced hand deformities to carry out daily tasks without assistance, empowering patients to deal with wounds and ulcers on their feet with self-care kit and a specially designed MCR footwear for preventing injuries. Reconstructive surgery helps correct visible disabilities thus increasing social acceptance while economic rehabilitation enhances self-esteem and social well being. Novartis CLC Association also provides integrated care to non-leprosy cases also with similar disabilities. This poster is the diagrammatic representation of NCLCA’s pioneering work and cites the percentage of success with each modalities. Some of the modalities now form the part of DPPM and CBR program.
Age Group & Mobility of Hand Act as a Main Role in RCS (Reconstructive Surgery)

Nita, Vijaya laxmi, Prabhat and Vijay Kumar
Lepra Society, Hyderabad, India
E-mail : vijay@rospileprasyociety.org

There are various reasons for getting good results in RCS (Reconstructive Surgery). The reasons are:
- Mobility of hand (Fingers),
- Young age group,
- Minimum duration of Paralysis,
- No Secondary deformity,
- Client Co – Operation,
- Healthy & Strong tendon (Normal),
- Proper plastering,
- Proper Physiotherapy

But main role given to mobility & young age group other reasons also very common & compulsory. Note: For the study purpose only 100 Cases data has been selected those are operated years back & living normal life. Age group divided into 3 groups: 1. 15 Years – 30 Years. 2. 31 Years – 45 Years, 3. 46 Years & above. Age group 1 out of 73 persons 61 are mobile claw hand good result is 60 persons in percentage – 82%. Age group 2 out of 22 persons 16 are mobile claw hand good result is 14 persons in percentage – 77%. Age group 3 out of 5 persons good result in 1 person only in percentage – 20% Age. Group 3 with small numbers. We can say clearly only one mobile hand. Got good result 4 stiff claw hand. Out of 4, 3 has got fair result & 1 is poor result. Compare with age group 1. 61 Mobile claw hand. Got 60 good & best result. Fair result only 13.

Details of 3 age group, result & percentage mentioned below table

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total persons</th>
<th>Mobile Claw</th>
<th>Stiff Claw</th>
<th>Result</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>15 – 30</td>
<td>73</td>
<td>60</td>
<td>13</td>
<td>-</td>
<td>83%</td>
</tr>
<tr>
<td>31 – 45</td>
<td>22</td>
<td>17</td>
<td>4</td>
<td>1</td>
<td>77%</td>
</tr>
<tr>
<td>46 &amp; above.</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>20%</td>
</tr>
</tbody>
</table>

Conclusion: Finally coming to the conclusion according to the above table shows clear picture no. of mobile claw hand results at the same view of age group according to the age group and mobility of the hand good result percentage is high. Stiff hand results percentage is low. Finally mobile claw hand and younger age group will get good & best result in R.C.S.

Squamous Cell Carcinoma in A Short Foot - Modified Syme's Amputation

CS Robertson and JR Shalini
The Leprosy Mission Hospital, Shahdara Nand Nagri, Delhi, India
E-mail : tlmshahdara@tlinindia.org

Posterior migration of heel and limb shortening are the major draw backs with Symes amputation. Eventually a patient starts walking on the lower end of tibia and finally ends up with a revision below knee amputation. This problem is common with patients with neuropathic ankle joints due to leprosy and diabetes. In modified Symes amputation a tulus block is made and tibio-talo-calcaneal arthrodesis is done which will maintain the limb length and prevent posterior migration of the heel.

Key words: squamous cell carcinoma of foot, Syme’s amputation, posterior migration of heel pad.

Screening of Deformity Cases To Estimate and Facilitate Reconstructive Surgery – A Pilot Study in Hardoi District, Uttar Pradesh, India

MN Casabianca1 and CB Prasad2 and 3Rashmi Shukla
1The Leprosy Mission office, TLM, CNI Bhawan, 16- Pandit Pant Marg, Delhi, India, 2Leprosy Division Govt. of UP, 3NLEP Coordinator, UP, India
E-mail : reception@tlinindia.org

Introduction: In the current scenario of leprosy, Disability Prevention and Medical Rehabilitation (DPMR) services are increasingly focused of which Reconstructive Surgery is an integral component. However, district-wise reliable data on the backlog of cases who would benefit from RCS is not easily available, while it is crucial to plan the logistics etc. Methodology: The District Nucleus and the Field Staff of the Government Health Infrastructure mobilized the deformed cases to the Screening Points at various PHCs. The Surgeon and Physiotherapy Technicians assessed these cases, which took 2 days in January and 2 days in April 2007. Results: the total no. of deformed cases as per PHC wise list were 500 cases (approx.) and the no. attended the Screening points was 350. 325 patients had motor paralysis of hands, feet & eyes and 210 cases were identified for Reconstructive Surgery. It is observed that 105 patients could be operated upon early while another 105 needs additional Physiotherapy Sessions before Surgery is contemplated. So far 40 cases were operated. The study highlights the intricacies of such an exercise.
Reverse Sural Artery Flap for Ulcers in Neuropathic Foot, Anterior Aspect of the Foot, Lateral Maleolus, Heel, Posterior Aspect of Ankle And Shaft of Tibia

CS Robertson and JR Shalini
The Leprosy Mission Hospital, Nand Nagri, Delhi, India
E-mail: timsfahdara@timindia.org

Ulcers are common in patients with leprosy with anesthesia. We have used reverse sural artery flap in 10 patients with ulcers in the posterior aspect of the heel, lateral maleolus, anterior aspect of the ankle, to cover the tendo-Achilles insertion and the lower end of the shaft of tibia to cover the exposed tibia. Presenting the indications, intra and postoperative complications, 1 year follow up results. Key words: foot ulcers, osteomyelitis of tibia, reverse sural artery flap.

Compliance for Splints and MCR Footwear Provided to Leprosy Patients Registered at an Urban Leprosy Project in Mumbai

Kamlesh Chavan
ALERT-India, Mumbai, India
E-mail: alert@bom5.vsnl.net.in

Several aids have been devised to prevent and correct the deformities in leprosy. Although these aids are found useful, its effectiveness largely depends on the use of these aids by the patients themselves. Several factors including stigma might contribute to poor compliance. The compliance can be improved only, if these aids are functionally beneficial and aesthetically acceptable to the patients. ALERT-INDIA has been producing appropriate physiotherapy aids at its Footwear and Splint Unit that are provided to leprosy patients. A longitudinal study was undertaken within the framework of the Leprosy Elimination Action Programme (LEAP), initiated by ALERT-INDIA to assess the compliance for hand splints and MCR footwear provided to the leprosy patients with disabilities and deformities. A survey of 200 leprosy patients, who were provided with MCR footwear or hand splints, attending the Leprosy Referral Centres in Mumbai and Navi Mumbai, was done using a structured questionnaire. The patients’ perspective on the effectiveness and acceptance for splints and MCR footwear were assessed. It was observed that the patients who had better understanding and self-motivation had shown better compliance than others. Priority must be given to the assessment of activities of daily life (ADL) and motivating the patients accordingly before providing such aids. There is a need to evolve a system of monitoring and guiding the patients for greater acceptance and better compliance based on ADLs.

Plantar Soft Tissue Thickness and Skin Hardness in Leprosy Neuropathic Foot

RajanPichaimuthu, M Nancy and M Ebenezer
Schieffelin Institute of Health – Research and Training Center, Karigiri, TN, India
E-mail: rajanpot@yahoo.co.in

Introduction and purpose of the study: Peripheral neuropathy is one of the major risk factors of foot ulcers in leprosy patients through a multifactorial pathogenetic sequence that involves motor, sensitive and autonomic components of peripheral nerve. This study aimed to quantify the changes in skin resilience and plantar padding thickness in leprosy neuropathic feet, in order to check neuropathy-associated modifications. Methodology: The sample consists of 15 persons affected with leprosy (mean age 45.45 years) who were suffering from posterior tibial nerve lesion. Patients underwent an evaluation of touch pressure sensation by means of Semmes Weinstein monofilament, intrinsic muscle strength by paper grip test, measurements of skin hardness by means of durometer and plantar thickness by means of lateral view radiograph of foot and ankle. Skin hardness was measured at heel, lateral border, 5th, 3rd and 1st metatarsal heads. Planter padding thickness was measured at lower border of calcaneum, cuboid and 5th metatarsal head. Patients were compared with age and gender matched leprosy affected people without posterior tibial lesions (controls), who underwent the same evaluations in the same order. Results: Skin hardness was diffusely increased in all the tested site in neuropathic foot and significantly higher in heel, lateral border 3rd and 1st metatarsal heads (p<0.05). Plantar thickness was significantly lower in neuropathic foot (p<0.01) in forefoot and mid foot. Conclusion: Skin hardness and loss of plantar padding strongly associated with neuropathy. Key words: Neuropathic foot, skin hardness, plantar thickness.
Cosmetic Appearance and Patient Satisfaction After Correction of Claw Hand in Leprosy

G Vijayshekhar and Premal Das
The Leprosy Mission Hospital, Naini, Allahabad, UP, India
E-mail: tmmaini@tlmindia.org

Introduction: Restoration of cosmetic appearance is one of the main objectives in deformity correction in leprosy followed by patient satisfaction after Reconstructive Surgery. Methods: A Retrospective study was conducted at The Leprosy Mission hospital Naini to measure cosmetic changes in hand and level of patient satisfaction after Zancolli procedure. 300 hands of leprosy-affected patients were operated during 2005-2006. Lasso procedure of looping Flexor Digitorum Superficialis through proximal pulleys of the digits was done. Following a Post-op exercise regimen, joint angles were measured with hand goniometer. Level of patient satisfaction following surgery was recorded by Visual Analogue scale. Mean (SE) Angles measured for all 4 fingers. Results: Varying degrees of hyperextension of MCP joints was achieved, giving good cosmetic appearance and high level of satisfaction following surgery. Key words: claw hand surgery, Zancolli lasso procedure, patient satisfaction.

Evaluation of Palmaris Longus Lasso correction for Claw Hand

M Uma and P Das
The Leprosy Mission Hospital, Naini, Allahabad, UP, India
E-mail: tmmaini@tlmindia.org

Introduction: Palmaris Longus (PL) Lasso is the preferred surgical option for those having hypermobile fingers and long flexor weakness. There are reports that there is adhesion formation due to anastomosis, which interferes with the movement of fingers. It was therefore proposed to make a careful evaluation of this procedure on all patients who had PL lasso correction at TLM Hospital in Naini, Allahabad district in Uttar Pradesh. Methods: Pre and Postoperative measurements (Unassisted angle, fist and grasp contact & power) were compared in 62 patients who underwent PL Lasso surgery during 1998 to 2006, in terms of outcomes after surgery. Results: Nearly 80% showed improvement in lumbrical position, with 43.5% showing marked improvement. Grasp contact showed improvement in nearly 90% of patients. Thus, almost all the patients had good lumbrical position and complete fist, which confirms the free action of transferred tendon. It is concluded that adhesion formation is not inevitable and can be prevented. Key words: lasso surgery, claw hand.

Long Term Impact of The Reconstructive Surgery in Leprosy at TLM Referral Hospital Shahdara

I Ghosh, Kumar Vijay and R Saxena
The Leprosy Mission Hospital, Shahdara Nand Nagri, Delhi, India
E-mail: tmshahdara@tlmindia.org

Surgical reconstruction of the deformities in leprosy is now firmly established but has some limitations. Tendon transfer surgery is a very specialized technique demanding complete concentration and patience on the part of the surgeon as well as the patient's cooperation. A follow up study was done on all the patients who had reconstructive surgery during 2000-2003. Standard criteria were used for grading results at discharge, after three months and one year. 463 patients (372 males and 49 female) who had reconstructive surgery during Jan 2000 to Dec 2003 were followed up. The age of patients varied from 8 to 65 years with a mean age of 28.4 years. The results were consistently good at discharge and generally at the end of three months and one year after discharge. Unfortunately follow-up at three months was only 50% and at one year only 25%. Comparison of responders with non-responders showed that the patients from long distances generally dropped out of follow up. During hospitalization and particularly at discharge, patients must be encouraged, motivated to report periodically for post operative care. Addresses must be correctly recorded by the MRD and updated. Patients' should be made responsible for their treatment and outcomes. Some strategy should be developed to contact non-responders. Key words: reconstructive surgery, long term impact.
Pioneering Reconstructive Surgery by Lepra Society

Kameswara Rao Adiraju
Lepra Society, India
E-mail: kamesh@roolieprasociety.org

Introduction: Some of the disabilities in leprosy are corrected to restore the lost form and function through reconstructive surgery (RCS) to prevent de-habilitation. LEPRAS Society pioneered RCS facilities since 1994 in a vertical set up and by 2006 a total of 2705 surgeries have been performed on the patients of its projects. This paper analyzes the pattern of deformities corrected and frequency of various disabilities needing surgery. Methodology: LEPRAS Society started anti-leprosy activities in Orissa in 1990 and its projects have rendered MDT, POD and SER services. In the process, Society has financially supported a RCS unit and the suitable cases were referred by projects to the centre. It followed a sound protocol of pre operative physio care, surgery and post operative management including follow-up. Results: Among the total 2705 surgeries, 2079 surgeries were availed by males (76.9%) and the rest 626 (23.1%) by female. This included 47 male and 38 female children. Out of 2705 disability corrections, 1206 (44.6%) were for ulnar clawing, 681 (25.2%) for foot drop, 244 (9%) for thumb opposition, 143 (5.3%) for lagophthalmos, 15 (0.6%) for extension of wrist/fingers, 366 (13.5%) others which include nerve decompressions, minor procedures and secondary deformity corrections. Upper limbs were affected more with 1833 cases (67.8%) followed by 723 (26.7%) in lower limbs and 144 (5.5%) in eyes. Conclusions: The commonest correction is ulnar claw. About 90% surgeries were performed to correct the primary disability. Keywords: Disability, RCS, De-habilitation, Physiotherapy.

Study of Bony Architecture in Plantar Defects

Atul Shah and Pawan Agarwal
Tata Department of Plastic Surgery, J J Hospital, Mumbai 400 008, India
E-mail: clcp@vsnl.com

Twenty five cases of plantar defects were studied for the presence of bone changes in feet. Majority of the patients were in the 30-50 years of age group. It revealed different specific, non-specific and osteoporotic bone changes. Specific bone changes were usually destructive because of underlying disease. Non specific bone changes were absorptive in nature because of anaesthesia, ulceration and non specific infections of extremities. Osteoporosis was noted in the extremities. Present study reports our experience in study of Bony architecture in plantar defects. In this study radiological bone changes have been studied in 25 patients who presented with plantar ulcerations. The most common cause of this ulceration was leprosy. Our findings suggest that commonest non-specific bone changes were absorption of phalanx, concentric absorption, linear calcification and less common changes like osteitis or osteomyelitis and the least common changes were cupping of joints and acute osteitis. It is our endeavour to put forward a reminder that while self-care is promoted to prevent or cure ulcers, if underlying bony changes are not kept in mind less than satisfactory outcome may be obtained. Referral of all cases who do not heal within certain period is mandatory for evaluation with skiagram followed by proper orthopaedic management.

Evaluation of Asylated Patients of An Ex-Colony of Leprosy Through SALSA and Participation Scale

TN Meyer¹, LF Lehman² and MAF Grossi³
¹Casa de Saúde Santa Fé, FHEMG, Três Corações; ²American Leprosy Missions; ³SES/MG, Belo Horizonte, Brazil
E-mail: tfuf@uai.com.br

Introduction: SALSA and Participation Scales are relatively novel means of assessing patients with disabilities. Their use to evaluate chronically disabled, asylated ex-patients of leprosy can be useful in several aspects. The assessment of management efficacy can be one of the applications of such scales. In this work, patients of the Casa de Saúde Santa Fé, Três Corações, MG, Brasil, an ex-colony of leprosy, have been evaluated in such a way. Methodology: 40 patients (20 male, 20 female), all asylated, all above 50 years of age, with advanced degrees of physical disabilities, were evaluated using SALSA and Participation Scale methods. The results have been tabulated and analysed. Preliminary results: The scales were reliable and easy to use in this context. Initial results have been obtained and will be compared to future others, after management strategies can be changed, as oriented by present results. Conclusions: SALSA and Participation Scales can be useful in the evaluation of asylated, chronically disabled ex-leprosy patients. Keywords: Leprosy. Disabilities. SALSA. Participation Scale.
Integrating Patients with Leprosy Deformities into a General Rehabilitation Facility

TN Meyer1 and MAF Grossi2
1Physical Rehabilitation Center, Casa de Saúde Santa Fé, FHEMG, Três Corações; 2SES/MG, Belo Horizonte, Brazil
E-mail: crsmo@cin.102.com.br

Introduction: A new Physical Rehabilitation Center was opened (March 2006) at the Casa de Saúde Santa Fé, an ex-colony of leprosy in Três Corações, MG, Brazil. This facility was originally intended to function as a general rehabilitation service, without any emphasis on a given disease. Yet, due to its existence inside an ex-colony, but also as a consequence of a new policy of the MG State Health Secretariat, patients with leprosy deformities have been integrated into this Center, changing its focus. In this work, the first year of such an experience is described. Methodology: Patients with deformities and disabilities due to leprosy, under treatment at the above-named facility, were interviewed as to their opinions; their prontuarios were reviewed; aspects related to prejudices and integration were investigated. Result: There was a uniform favorable opinion pertaining the integration in all its aspects. Conclusions: Integration of ex-leprosy patients with disabilities and deformities into a general physical rehabilitation facility has been a worthy experience, deserving continuation. Keywords: Leprosy, Rehabilitation centers, Prejudice.

Analysis of Participation Scale of Leprosy Affected Persons of Nepal

Karuna Neupane and Nati Desar
Anandaban Leprosy Hospital Kathmandu, Nepal
E-mail: anandaban@fhnepal.org

Leprosy is a chronic disease which leads lots of complication. One of most harmful complication is disability and deformity which leads social stigma in the community. One of main aim of this study is to find out participation status of the leprosy affected person in the society. This study also helps to find out role of disability for active participation in the social activities. About 50 leprosy affected person with visible disability will be in roll in this study. Participation scale questionnaire are using for data collection. Data will be taken with direct interview with patient. Finding data's will be analyzed with using Microsoft Excel computer programme. Key words: participation scale in leprosy.

Rehabilitation of Leprosy Patients Yesterday, Today ,Tomorrow

A Subramanian, Kitheri Philip, V Moothy and A Visuvaram Demisraj
Sacred Heart Leprosy Centre, Sakkottai - 612 401, Kumbakonam, South India
E-mail: shlc_kmb@sanchanernet.in

Introduction: Deformities and disabilities in Leprosy are challenges not only to the patients but also to the treating team. Deformed patients need continuous care after cure. The Social Welfare Department of Sacred Heart Leprosy Centre, Sakkottai, South India had implemented various Rehabilitation Programmes with financial assistance by EMMAUS-Switzerland, GLRA, IDEA-India and support of government organisations. A study was undertaken to assess the rehabilitation measures, to analyse the effectiveness in the approach in various periods. Methods: Patients with deformities which interfere with normal life were assessed, assistance were given after evaluation. Results: Activities from 1980 to 2006 were analysed. No. of beneficiaries House visit/Camps conducted: 8141 Economical Rehabilitation: 605 Vocational training: 179 (after 1998) Education Assistance: 178 Aids and appliances : 8237 (Central Government Scheme) Average of Rs.2,95,815 was spent for rehabilitation per year. Discussion: It was observed that financial assistance in the past was replaced by giving occupational/training and partial support for education. As of today 70 science/arts graduates, 7 teachers, 30 nurses, law, medical, veterinary, BPT graduates, 52 engineers, IIT, I.T. and others were benefited through education scheme. The beneficiaries were mainly wards of leprosy patients. Conclusion: The disabled need care, help and support. Training and education assistance have yielded good result. This has to be further extended in future. Key Words:Rehabilitation, Vocational training, Education Assistance.
To Compare the Effectiveness of Velcro/Buckle Straps vs Elastic Straps in Microcellular Rubber Footwear for Severely Deformed Leprosy Hands

M Mathanraj David and K Iivarasi
The Leprosy Mission Platinum Vocational Training center, Chelluru, ASAP Quarter SO, Vizianagaram, Andhra Pradesh, India
E-mail: tmvtrczn@tmindia.org

Introduction: This study was aimed at finding out the best Micro Cellular Rubber footwear strap for leprosy affected subjects with severely deformed hands and To enhance the compliance of using Micro Cellular Rubber footwear at all times independently.

Methods: Then Elastic strap Micro Cellular Rubber footwear was introduced to the subjects and given training to use the footwear for two days, later on timing of Donning and Doffing for Elastic strap was recorded. Results: This study showed the time required for donning & doffing of conventional Velcro/Buckle Micro Cellular Rubber footwear were more compared with Elastic strap. The Elastic strap has significantly reduced the time duration in donning & doffing of Micro Cellular Rubber footwear. Hence it will enhance the compliance of using Micro Cellular Rubber footwear. Conclusion: The above results proved that elastic strap saves time in donning & doffing and also will enhance the compliance of using Micro Cellular Rubber footwear for regular use and there by reducing the recurrence of plantar ulcers and improve the quality of life. Key words: housing, stigma reduction.

Leprosy Colonies in Bihar

Thomas Singh
Kusht Nivaran Society, Nehru Nagar, Patna, Bihar, India
E-mail: kushtrial@bhar.co.in

There are forty-five Leprosy colonies in Bihar. 1. In Gaya which is about 110km from Patna has three leprosy colonies. In these three colonies there are altogether about 700 people living in these colonies with their families and children. Each leprosy-affected person has his own punca house on his own land. There are facilities of water and electricity. There is a government leprosy hospital beside these leprosy colonies where all the leprosy affected people get medicine. There is provision for children's education and some of them are studying in boarding schools. Old age Pension and Social Security Pension is available to all the affected ones. About 200km away from Patna there is East and West Champaran where we have Chakia Leprosy Colony, Pipra Leprosy Colony, Gandhi Leprosy Colony (Kumarbagh). In these leprosy colonies there is water facility but there is no electricity connection, none of them have punca house. They live in huts made of straw and grass. They do not have their own land. Everyone gets old age pension. In Bargania and Chainpur Leprosy Colonies there is no electricity, no land of their own and none are getting old age Pension. They have drinking water facility. Dhaka Leprosy Colony in East Champaran has puca houses, electricity, solar lights, water and everyone is getting old age pension. In Ramgarhwa Leprosy Colony there is electricity, water and old age pension scheme. For children's education there is a school in the leprosy colony itself. The houses are quite old and water leaks through the roof during rain. Ghora Sahar Leprosy Colony has puca houses but need urgent repair. There is water and everyone gets the old age pension. There is no ration card. Chauradanu Leprosy Colony has puca houses but need urgent repair. Forty people get pension and rest are not. Janki Leprosy Colony in Sitamarhi has puca houses, electricity, water, school for children and all get old age pension. But the houses are old and they need urgent repair. Laxman Nagar Leprosy Colony in Sitamarhi has puca houses but need urgent repair. There is electricity and water and old age pension scheme. Bhoir Gaj and Chanpatia Leprosy Colony have puca houses but need urgent repair. There is a primary school in Chanpatia Leprosy Colony. None of them get old age pension. They have their own land. Arrah Leprosy Colony in Bhojpur district does not have their own land. This colony has huts. There are three hand pumps, ration cards and old age pension. 250 leprosy-affected people live here. Motipur Leprosy Colony has puca houses, own land, old age pension, water, school for children but no electricity connection. About a little distance away from Patna there are two leprosy colonies in Khagaul- Ram Nagar and Prem Nagar Leprosy Colonies they have water facilities, electricity, old age pension, ration cards, a non-functional school. Children go outside to study. Very long time back a puca school was built in Ram Nagar Leprosy Colony in which I taught to the children of leprosy affected people for 22 (twenty) years, now which is non-functional due to scarcity of fund. We are trying to re-open it and your kind help is needed. Leprosy affected people of Bihar do not get any help from any organization. I have visited all the 45 (forty-five) leprosy colonies of Bihar and got them made ration card, old age pension, red cards and in many got installed hand pumps for drinking water. I do not get any help to visit these leprosy colonies. Frequently I keep visiting the S.D.Os, D.Ms and Chief Minister. About 20 colonies in Bihar need urgent repair work. We would like that each leprosy colonies of Bihar should have vocational training centers, good education facilities for children employment for their unaffected family members and cease of begging.
P-273

Nerve Function Evaluation After Nerve Decompression Surgery in Leprosy Affected People

Pedro Aurélio L. Cunha, José Yranio do Nascimento, Elbio C. Rola, Maria da Graça S. Cunha, Rusdany Collado Fuentes and Carolina Souza Cunha
E-mail: pedrocunha@vivax.com.br

It is important to realize that leprosy nerve damage could occur before diagnosis, during and after MDT treatment. Recent nerve damage can usually be reversed by steroids. However, in many cases, no further recovery can be expected mainly when the damage occurred long ago. Nerve decompression is one of the intervention which can be done with the aim to minimize any adverse effects and to prevent any worsening of the neural damage. Among 813 leprosy cases detected in 2006 in the Amazonas State, Brazil, 96.8% were accessed to the degree of disability and found that 17.1% presented degree I and 7.4% degree II of disability. The objective of this study is analyze, using the neurofunctional exam, the effectiveness of nerve decompression surgery in leprosy affected people. From March 2006 to September 2007, were performed 206 nerve decompression surgeries. In the post-operative follow-up, the pain told as the main complain and also a disability factor, presented important improvement promoting satisfaction mentioned by the patients about the results, as well as improvement of sensibility; less improvement in nerve motor function was observed. Key-Words: Leprosy, Nerve Decompression Surgery, Neuritis.

P-274

Impact of MDT on Leprosy Neuropathy

Ximena Illarramendi, R Vital, JAC Nery, EN Sarno and MR Jardim
Oswaldo Cruz Institute, FIOCRUZ, Laboratório de Hanseníase, Av Brasil 4365, Manguinhos, 21040-360, Brazil
E-mail: ximenaill@ioc.fiocruz.br

Leprosy remains a public health problem because nerve damage is permanent and difficult to prevent. It is necessary to determine the reliability of different techniques that measure the function of the various nerve fibers to evaluate early appearance of neuropathy. A prospective clinical study was performed in 24 randomly selected patients, 11 paucibacillary (PB) and 13 multibacillary (MB) that were evaluated before and 1 year after MDT. Peripheral nerve function was evaluated clinically, and by means of the sympathetic skin response, skin vasomotor reflex, and electroneuromyography. At the moment of diagnosis, all patients had some nerve function alteration except for one PB patient. At the final evaluation all MB patients remained with altered nerve function and 63% of the PB patients recovered clinical nerve function although nerve conduction alteration persisted. Half of the patients recovered autonomic function regardless treatment group. Clinical and neurophysiological testing in PB and MB patients behaved differently, MB showed more involvement of larger fibers than PB patients. MDT treats leprosy infection but is insufficient for arresting or preventing the nerve damage responsible for impairment and disabilities in predominantly MB patients. Keywords: neuropathy, MDT, electroneuromyography, skin vasomotor reflex, skin sympathetic reflex.

P-275

The Paper Grip Test for Assessing Intrinsic Muscle Function in the Foot

Willem J Theuvenet
E-mail: wjtheuvenet@wxs.nl

Apart from loss of protective sensation at skin and joint level, and the proper functioning of the autonomic nerve system, loss of motor balance in the lower extremity may be one of the key factors causing unwanted peak pressures in the planter area which may lead to ulceration and osteomyelitis. The Paper Grip Test is a simple and proven method for the early detection of intrinsic muscle weakness in the foot, which may help in the prevention of forefoot damage, especially in those cases where the sensation in the forefoot is not affected.
The Impact of Physical Therapy Through Satellite Clinics

Brintha Sam Dham, V.Suresh Kumar, F Kavin Prince, Immanuel William Selwyn and A Jeyabalain
TLM, CNI Bhawan, 16- Pandit Pant Marg, Delhi, India
E-mail: reception@tlmindia.org

Intervening surgically and therapeutically to rehabilitate or to maximize the functional ability of the Person with Disability (PWD) is always the felt need of the Persons with Disability and his/her family members. The IDC & CBR (Integrated Disability Care for the Disabled and the Community Based Rehabilitation) Project strives to fulfill this need. Since this project is called Integrated Disability Care, this concept fixes well to the vision and Mission of the Project. CBR aims to provide the service delivery to the door step of the PWD. This paper aims how far we could achieve the functional ability by providing therapeutic intervention. The primary aim of the Satellite Clinic is to increase the functional ability of the PWD/CWD. The therapists through their planned visits help them to improve their functional ability. The difficulty is in motivating the parents to come to the Clinic regularly. However, this programme is vital in the community based project like this, to further enhance the functioning ability of the CWD/PWD. **Key words**: physical therapy in disability, impact of physical therapy, satellite clinics in disability.

Delayed Access of Hospital Services by Leprosy Patients with Ulcers in the District of Sivagangai Tamil Nadu

J Jayanti
The Leprosy Mission Hospital, Dayapuram, Manamadurai, Tamil Nadu, India
E-mail: tjdayapuram@tlmindia.org

**Introduction**: Ulceration of the foot in leprosy is a common problem that can be prevented by proper application of health care education and thorough self care. Despite several national programs ulcers continue to be a cause for stigma and repeat visits to the hospital. **Methods**: All patients who were hospitalized for the first time with planter ulcers were included. Their treatment needs were studied along with purpose for the visit and the ulcer characteristics. **Results**: out of the total of 120 contacts, 45 patients had visited for the 6th time. The number showed a decline from time of first ulcer till their last contact. The number of hospitalizations reduced from the first ulcer to subsequent ones with both genders being equally affected. **Conclusion**: This study demonstrates that in spite of a declining trend in new ulcers over time, there is a definite need for referral hospital service exclusively for leprosy patients. 90% of the inpatients at the time of learning contact with the hospital had persisting ulcers. **Key words**: ulcers, leprosy, access to healthcare.

Causes of Recurring Ulcers as Per Patients' Opinion

B Bera and NK Nanda
Postal address: The Leprosy Mission Hospital Purulia Leprosy Home and Hospital, P.O. Box no. 9, Purulia, West Bengal, India
E-mail: tlmpurulia@tlmindia.org

Many leprosy patients get admitted in our hospital. But out of these admitted patients 70% complain of ulcers. Among these patients 30% patients come 2-3 times for admission in a year. This causes problem for their admission in the wards. So this study is to know the reasons why they come repeatedly. Patients are admitted more than once to be asked question There may be many reasons for this readmission but we have to know the reasons as stated by patients themselves. Therefore an unstructured questionnaire is made and translated into local language. The nursing staffs are given the questions to ask the patients. This was done with 100 patients among ward patients in our hospital. The results will be discussed and presented in the conference. **Key words**: recurrent ulcer in leprosy, causes of recurrence
A Study Report on Disability Trend in Child Cases in 9 Districts of Bihar

Rajni Kant Singh, Arun Baidya, Amar, SK Mishra and Shushant Kumar Mishra
Lepra Bihar, H.No.1, New Patliputra Colony, Patna 800 013, Bihar, India
E-mail: leprabihar@gmail.com

**Introduction**: Leprosy in children, particularly with disability is a life long suffering and stigma. Hence early detection and proper treatment & care are most important in the children. **Aims**: To study the disability in the children due to leprosy from 2001 to 2005. **Methods**: Reports & records of 9 districts, Discussion with DLO/MO of the implemented districts, Master register Interview of patients as well as families **Findings**: The trend of child disability is increasing. This is the danger sign of the program. Findings and study will be presented.

Sustainability of self Care Practice Through 7 Day’s POD Camps – An Experience of 60 POD Camps

Prem Prakash Agnihotry and Ishwari Soni
89, Dashhara Maidan, Ujain (MP), India
E-mail: dipsoni@rediffmail.com

**Objective**: 1. To obtain sustainability of self care practice among leprosy patients. 2. To prevent further deterioration of their disability and deformity. 3. To promote self care in leprosy patients for care of their insensitive limbs. **Methodology**: 1. Admitting the grade I and grade II disability patients in the mix group residential camp (patients + treatment provider + Community). For seven days. 2. Practical training Hydro-olio-physio-exercise and education, precautions and conventional methods for care of limbs uses of protective foot wear, including education counseling performed by skill staff and trained to all patients twice in a day for continuous 7 days. 3. Self care training to the patients in group and giving personnel attention to individual in specific case. **Observation**: It has been observed that the self care training in such camps is more fruitful in comparison to individual patient’s health education; patient feels their needs of self care and after the camp patient continues self care for long duration. Ulcer healing and disability prevention is by product of these camps. **Result**: Regularity of self care practice at home increased comparatively individually educated patients. Non recurrence of ulcer sustainability traced and managed with the procedure. That can be maintained for a long time. **Conclusion**: Integration of leprosy services in general health system, these types of camps can be very useful for helping those patients who are suffering with insensitivity of limbs.

Trends in Leprosy Related Disability and Burden of Disability

B Rajashekar and G Norman
Schleifelin Institute of Health Research & Leprosy Centre, Karigiri, TN, India
E-mail: normangitt@yahoo.co.in

With concerted efforts in diagnosis and treatment with MDT and the subsequent declaration of elimination of leprosy as a public health focus, focus has now shifted to the prevention of disability and rehabilitation. However, planners and policy makers are constrained by lack of field-based data on the epidemiology of disability due to leprosy. Most of the information available is hospital-based data. This paper analyzes data on disabilities that was systematically collected from Gudiatham Taluk over 50 years. It gives information on the grades of impairment at the time of diagnosis over a 50 years period, and the present magnitude of the problem. Information of the occurrence of Gr. 1 impairment would provide valuable information to planners to develop appropriate strategies. Over a 30-year period (1965-1995), the Gr. 1 impairment among new cases remains almost steady at 10 %, while the Gr. 2 impairment shows a gradual decline from 36 % to 7.4 % in 1981. There was a further drop till integration after which the Gr. 2 impairment rises. Epidemiological and demographic data will be reported.
Involvement of Foot in Leprosy in A Tribal District of Orissa

P Nageswara Rao
Lepra Society, Orissa, India
E-mail: kora@leprasociety.org

Introduction: KORALEP a LEPRa Society project is working in Orissa since 1991 covering Koraput and Malkangiri districts having 16,84,835 population. Most foot disorders are due to damage of peripheral nerves. These are complex in their aetiology and pathology and involve both the skeletal components and the surrounding soft tissues of the foot. This paper aims to analyze the pattern of foot involvement due to leprosy in the project. Methodology: All the cases with foot disabilities were assessed by Physiotherapist and the findings were recorded in POD/POWD format. Accordingly, required treatment and interventions were provided at patient’s doorstep, disability care clinics and indoor care unit. Teaching & practicing self-care, use of adoptive devices like MCR footwear, joint care and RCS are some of the interventions followed in the process. In course of time, a considerable amount of skill and self-care have been transferred and are being undertaken by the beneficiaries themselves. Results: A total of 17,747 persons were cured from leprosy in the project. Of them, 1544 persons (8.7%) have disabilities at the time of registration. A total of 489 (31.7%) were Gr. I and 1055 (68.3%) were Gr. II. Among the 1544, 755 persons (48.9%) had disabilities in their feet. Of the 755 disabilities, 524 (69.4%) were male and 231 (30.6%) were female. 225 persons (29.8%) had anaesthesia and the remaining 530 (70.2%) had visible deformities. Ulcer foot was found in 408 (54%) cases. Among them, 266 (65.2%) were male and 142 (34.8%) were female. Of the total 755 disabilities, Posterior Tibial nerve was the cause for impairments in 639 persons (84.6%) with male and female ratio 66.8 and 33.2% respectively. Conclusion 8.7% of all leprosy cases had disabilities Foot disability constituted 48.9% with ulcers in 54% of cases Gr. II disability is as high as 70% Posterior Tibial nerve damage is more common though foot drop draws more attention Every problem showed male preponderance. Key word: MCR, RCS, Anaesthesia, Disability, Impairment.

Strengthening the Faith Based NGOs in POD Activities – An Experience with a Difference

Atul Shah, Neela Shah, Padma Venkatraman, R Shiva and A Viswanathan
Novartis Comprehensive Leprosy Care Association Remi Bizcourt, GR-01, Veera Desai Road, Andheri West, Mumbai 400 058, India
E-mail: clcp@vsnl.com

It is well known that religious and faith based organizations have necessary ingredients to carry out self-less services. The Leprosy Mission is an admiring example. Similarly, it was our endeavor to support other NGOs, particularly Sri Ramakrishna Math, Chennai. The unique experience of conducting the “Care Camp” activity for ex-leprosy cases is the basis of this report. In the care camps held at Sri Ramakrishna Math, the activities ranged from offering the rehabilitation articles to teaching of self-care. Twenty years of involvement in rehabilitating the Leprosy Afflicted Persons(LAPs) made the task easy as they were already prevented from de-habilitation which enabled them to accept our guidance regarding self-care. Many of the patients themselves healed their wounds with “self-care kit” given by NCLCA. The follow up camps have seen the motivation of retired leprosy staff presenting as volunteers to visit their home and identify their problems, thus beginning the community based rehabilitation services. The self-care practices of LAPs were assessed periodically. Train the Trainers program included the leprosy workers & the volunteers. It has resulted in getting more cases from the adjacent area. The efforts are on to adopt a neglected area for “Care & Cure” activity. The poster depicts the activities and enumerates benefits to help other NGOs to think in direction of caring and community based rehabilitation.
Education and Practice of Self-Care in Poid Program

Sudhakar Bandyopadhyay¹, MP Mahato²
¹GLRA/AIDS, Kolkata, ²GMLF Balarampur, Purulia, India
E-mail: sb3tr.ug@gmail.com

Introduction: Prevention of impairment and deformity is the most priority area in the post-elimination scenario. Though the introduction of MDT has resulted into drastic case reduction and deformity rate, yet the existing no of deformed/disabled persons and deformity among new cases are not negligible. The social implication of deformity in multifarious, the degree of stigma and ostracisation depends on the degree of deformities. Apart from aestheticism and self-stigmatization, individual productivity is diminished. Hence, prevention and correction of deformities and reinstatement of productivity should be the aim of this venture. Community, patient and patient’s family member’s education, practice of self-care and surgical interventions are the essence of a meaningful POID program as revealed through a 10 year’s (1997-2006) retrospective study of the activities of Gandhi Memorial Leprosy Foundation, Balarampur unit in Purulia district of West Bengal. Method: The educational intervention were designed emphasizing early case detection and preventive aspects of disability for the community and education of patients and patient’s family members with self-care demonstration and conducted accordingly in the operational area. Regular follow up was undertaken with special attention to G2 and post operative cases. The health workers were trained for two days before implementation. Patient’s family members were involved actively in the process. Result: During 10 year’s period (1997-2006), total 4964 new cases were detected. Deformed cases among new detection were 322(G1-291 G2-31). However, total cases under POID care were 957(G1-306 G2-651) including old cases. Out of them 726 were improved, 190 remained static without further aggravation and condition of 41 were worsened due to migration and non-compliance. Conclusion: Appropriately designed communication, methods of approach, self-care demonstration, enhanced motivation and practice by the clients, regular follow up and surgical intervention are the essential components of a committed POID program.

Correction of Fingers with PIP Joint Stiffness

Atul Shah and Sudhanshu Khote
Tata Department of Plastic Surgery, J J Hospital, Mumbai 400 008, India
E-mail: clcp@vsrd.com

Over the years many leprous claw hands suffer from the problem of stiffness of the PIP joints of fingers. Its correction has remained an enigma to reconstructive surgeons; nonetheless it is important for enabling the hand for the activity of daily living. The various methods of correction consists of POP cylindrical casts, dynamic gutter splints, vigorous stretching exercises and distraction through "K wires" inserted in the phalanx proximally and distally. Distraction technique derived from Ilizarov's pioneering work in limb lengthening now is a standard arsenal in the armamentarium of surgeons. However, caution should be exercised at times. However, preoperative and postoperative splintage and physiotherapy exercises are mandatory to avoid recurrence or limitation in the range of the movement of PIP joint. With good patient’s compliance, it can be concluded that biological structures are stretchable and if the limiting factors are dealt with properly surgically, the results could improve further. This poster presents simple technique and results of the procedure carried out by us in few hands.

Early Postoperative Active Mobilization Following Foot Drop Correction

Dibya Jyoti Sahoo, P Nageswar Patra and MS Santosh Rath
LEPRA assisted Reconstructive Surgery Unit, HOINA, Muniguda, Orissa, India
E-mail: dibyasjoti.8@gmail.com

Introduction: Immobilization of the foot and ankle after Tibialis Posterior transfer (TPT) for paralytic foot drop correction for four weeks is the usual practice. The purpose of this study is to develop a protocol for early postoperative active mobilization (EPAM) for TPT and compare the results with post-operative immobilization of the transfer. Methodology: In a prospective study, 23 foot drop corrections with TPT had undergone EPAM from fifth postoperative day. Each foot was assessed and given therapy pre- and post-operatively followed by regular follow-ups. Primary outcomes are ‘foot at rest’ position, ‘active dorsiflexion’, ‘total active motion’. The results of EPAM were compared with retrospective cohort of similar transfer operated prior to the EPAM trial and immobilized in a cast for 4 weeks. Statistical analysis was done by student test. Results: There is no incidence of tendon transfer insertion pull-out. There was no significant difference in active dorsiflexion, foot at rest and total arc of motion between both the groups. Weight-bearing began 17 days earlier with early postoperative active mobilization of tibialis posterior transfer. Conclusions: The study concluded that EAPM produces similar outcomes to immobilization of the transfer. The reduced morbidity and earlier weight-bearing is an added advantage to the patient. Keywords: Foot drop, tendon transfer, early active mobilization.
A Comparative Study Between Immediate Active Mobilization and Immobilization for Claw Correction

P Nageswar, Dibya Jyoti Sahoo and MS Santosh Rath
LEPRA assisted Reconstructive Surgery Unit, HOINA Muniguda, Orissa, India
E-mail: nageshpt@yahoo.com

Purpose: To test the hypothesis that immediate post-operative active mobilization (IPAM) of the hand following claw correction with Flexor Digitorum Sublimus of middle finger 4 tail pulley insertion (FDSM-4TP) will achieve similar outcomes to the standard practice of immobilization in a cast. Methods: In a prospective study, 32 hands with complete ulnar nerve paralysis had 4 digit claw deformity correction and IPAM at 48 hours. Outcomes are the status of tendon transfer attachment to the flexor pulley, and the results of the claw deformity correction. The results from both groups were compared by Mann - Whitney U test. Results: There was no incidence of tendon transfer pullout during IPAM of FDSM-4TP. There was no difference in both groups in the early outcome of deformity correction but significant difference at late follow-up. There was significant difference in ability to maintain the intrinsic plus position of digits in the early & late follow-up. The rehabilitation time was reduced by an average of 21 days with IPAM. Conclusions: This study supports the hypothesis and suggests that better outcomes can be achieved in reduced time making IPAM following FDSM-4TP the preferred postoperative therapy protocol for claw deformity correction. Earlier return to ADL was a further benefit to the patient. Key words: claw hand, ulnar paralysis, tendon transfer, early mobilization.

Orthopaedic Department of MKCG Medical College, Berhampur
Takes Up Re-Constructive Surgery (RCS)

Arvinda Kumar Podla
Department of Orthopaedics Medical College, Berhampur, Orissa, India
E-mail: podla_arvind@yahoo.com

Introduction: Leprosy often results in disabilities leading to limitation of day to day activities and loss of livelihood. To correct these deformities, re-constructive surgery (RCS) is undertaken at the Orthopaedic department of MKCG Medical College, Berhampur, Orissa, supported by LEPRA Society. This paper presents the activity held at the college from November, 2006 to August, 2007. Methodology: The cases with deformities were referred from peripheral health institutions to the college, screened at OPD and admitted as per the suitability. They were under pre operative physio management and then recommended for surgery soon after fitness. Post operative re-education was given for 4 weeks after 3 to 4 weeks of immobilization. The cases were advised for self-care at home and regular follow-up at the institution as per the schedule. Results: During the period, 30 surgeries were conducted. Of them 18 (60%) were male and 12 (40%) were female. The beneficiaries were between the age group 13-42. Of the 30 surgeries, 18 (60%) had correction of ulnar claw, 7 (23.4%) foot drop, 3 (10%) median paralysed thumb, 1 (3.3%) lagophthalmos and 1 (3.3%) wrist drop. Conclusion: Ulnar claw is the commonest correction in leprosy RCS could be conducted successfully under public-private partnership in a medical college. Key words: Deformity, Rehabilitation, Re-education, Immobilization.

Operation TRAC – for Improved Grasp, Pinch and Cupping Action

Atul Shah
Department of Plastic Surgery, Grant Medical College, J J Hospital, Mumbai & Novartis Comprehensive Leprosy Care Association Remi Bizcourt, GR-01, Veera Desai Road, Andheri West, Mumbai 400 059, India
E-mail: clcp@vsnl.com

Operation TRAC – for improved grasp, pinch and cupping action In general claw hand correction by any technique does not attempt to correct the transverse arch of the hand. The correct actions of grasp and cupping need protraction and retraction movements at the metacarpophalangeal joints of the ring and little fingers. While author’s lasso technique corrects the transverse arch it does so account of the fact that division of FDS in to four slips is carried out at the center of the palm under vision. Despite that hypotenar movement is lacking. Provision of extra slip to be inserted at the abductor digiti minimi insertion greatly facilitates the protraction pull required to correct the transverse arch. This poster presents the technique and results in improvement of the dynamic actions of grasp and cupping. It shows that holding a cricket ball, supporting a spherical object, dynamic grasp for holding a rope or machine handle and even eating rice with hands improve much better with the operation TRAC.

[274]
Indoor Care For Consequences of Leprosy

Damodar Chand Tumbali
Lepra Society, Orissa, India
E-mail: koralep@leprasociety.org

Introduction: KORALEP of LEPRO Society has started anti-leprosy activities in a vertical set up in 1991 covering two tribal districts (Koraput & Malkangiri) with a population of 16,84,835. In subsequent years it took up POD/POWD activities and indoor care facility was set up in 1994 with 10 beds, increased later to 26. Since such facility is scarce in govt. sector, it has attracted many beneficiaries. This paper analyzes the utilization pattern of these facilities in managing reactions, neuritis/NFI, ulcer till December, 2006. Methodology: A Medical Officer is in-charge of the unit, supported by a physiotherapist, ANM, laboratory technician and a shoe technician. Patients suffering with severe reactions and ulcers mostly referred to the unit by field staff like MO, PMW and NMS. Cases requiring RCS related services were also referred. Very few cases were referred by the neighbouring districts. The cases were then screened by the MO, admitted and all the required services were provided. Results: Since the inception till December, 2006, 17,740 persons have been cured from leprosy. Of them 1544 persons (8.7%) have the disabilities (Gr.I-489, Gr.II-1055). Of these 1544, indoor care was required by 1403 persons including some repeat admissions. Of these 1403, 1096 (78.1%) are male and 307 (21.9%) are female. The facilities were mostly utilized for RCS related services with 615 cases (43.8%), the next group being 401 ulcers (28.6%). The remaining cases include patients admitted for shoes with Orthosis devices 174 (12.4%), neuritis/NFI with 121 (8.6%) and both types of lepra reactions with 91 (6.5%). Conclusions: Health seeking behaviour is high (78.1%) in males Indoor care facilities in leprosy are mostly utilized for activities related to RCS (43.8%) and treatment of ulcer (28.6%). Keywords: Indoor care, Reaction, Neuritis/NFI, Ulcer, RCS.

Improving Quality of Life in Leprosy Affected Persons Through Socio Economic Rehabilitation Programme

Narayan Mallik
Lepra Society, Orissa, India
E-mail: nmallik@reorlepasociety.org

Introduction: Leprosy is one of the oldest diseases with more social than medical problems. In no other disease individuals are forced to make their families and forced to live as outcasts in separate colonies or settlements. For many of the men and women affected by the disease, simply overcoming the infection is not sufficient to allow a straight forward return to their previous life-style. They need support beyond clinical that covers assistance in psychological, social and economic aspects of life. LEPRO Society fully subscribed to the principles described above. It mobilized various supportive measures from different sections of the society to meet these needs. This paper deals with beneficiaries and support schemes. Methodology: LEPRO Society started the Leprosy elimination program in the state of Orissa in the year 1990 in Sonepur District and the Socio-Economic Rehabilitation (SER) activities in the year 1997. Over the passage of time this activity got incorporated in almost all projects of the region. After several stages of assessment, LEPRO Society extended direct economic support under SER apart from mobilization of support from different schemes of the Government and Philanthropists and facilitated linkages. Results: By the end of December 2006, SER support has been provided to 8017 number of leprosy cured persons through its projects. The beneficiaries are mostly linked with social security as well as income generation schemes of the Government. Of the 6247 benefited, 2489 persons (39.8%) have been linked to the pension scheme followed by 1245 persons (19.9%) linked to IAY housing scheme. Conclusion: Leprosy cured persons could be integrated in the society and lead dignified life with SER support. SER goes a long way in stigma reduction. Keywords: Psychological, Community, SER, Philanthropists.
Economic Rehabilitation Through Income Generation Aids – A Sustainable Community Based Rehabilitation Activity

Neela Shah¹ and Atul Shah²
Novartis Comprehensive Leprosy Care Association Remi Bizcourt, GR-01, Vaera Desai Road, Andheri West, Mumbai 400 058, India
E-mail: clcp@vsnl.com

A person affected by leprosy often shows the physical and behavioral changes. Development of disabilities/deformities makes these changes worse. As such majority of leprosy patients stay in abject poverty. Thus, not only the person but also the family has to bear the consequences. Rehabilitation, preferably community based, is one of the solutions to bring these unfortunate individuals to mainstream society. Economic rehabilitation with gift of income generation articles has been established by NCLCA as one such activity which not only brings about changes in the affected person but also benefits the entire family. Economic assistance assumes more significance for those challenged with activity limitations on account of physical deformities as well as for those who have been cured of deformities with reconstructive surgery. Reconstructive surgery aims at functional rehabilitation and needs to be followed up with suitable aids on the need assessment basis in order to reinstate him fully as useful member of the society thereby achieving social integration. This poster represent the examples of income generation articles like hand carts, sewing machines, kits for carpentry, masonry or cycle/auto repair given to patients for self employment in the hope of making them self-dependant, earn for family and feel themselves as part of the society. Long term experience has enabled the Association to formulate some of the criteria for distribution of such aids.

Retrospective Study of 1000 Newly Admitted Pts at GOURIPUR LEPROSY HOSPITAL, WB, INDIA with Their Views on Socio-Economic Rehabilitation & Social Integration

Bani Prasad Chattopadhyay
G.I. Hospital, Bankura, 722132, West Bengal, India
E-mail: dbpc@rediffmail.com

Introduction: GOURIPUR LEPROSY HOSPITAL is situated at BANKURA WB, eastern part of INDIA having 550 indoor beds and encasement area of south Bengal as well as adjacent part of Jharkhand & orissa state. Methodology: newly admitted 1000 pts of 2006-07 were surveyed by simple questionnaire regarding age, sex, residence, family structure including any H/O contact educational & economical status, cause of admission, deformity status, there views & experience regarding treatment facility as well as acceptance at general health care delivery system in post-integration period. Their views in rehabilitation at society were also considered. Result: details of the result will be shown. Conclusion: in post integration era there is need of proper socio-economic rehabilitation and social integration. Key-words: rehabilitation, society.

Role of 3 Tier Indian Panchayet System In Rehabilitation of Leprosy Affected Persons into the Mainstream of the Society

Soma Bandhyopadhyay
Andhatore High School, Bankura, 722132, West Bengal, India
E-mail: somabpbc@rediffmail.com

Introduction: MDT has changed the face of leprosy & we are now heading towards a leprosy-free world but the work will be half-done if the existing patients are not rehabilitated with dignity in community. Local SELF govt has powerful presence with wide acceptance in rural INDIA. moreover it has been entrusted by the central as well as state govt to implement a number of welfare scheme like PRY, INDIRA ABAS, SARVASIKSHA AVIJAAN etc., etc., Methodology: A short description of 3-tier panchayet system and points where it can play role will be high lighted. Details of the result will be shown by chat & graph. Conclusion: local govt must be updated, should have a strong mind & will power to implement rehabilitation with in society. They can also play a pivotal role in economic rehabilitation by helping to include leprosy affected persons in SHG’s (SELF-HELP GPOUP). Key-words: 3 Tier Indian Panchayet System, Rehabilitation, Self- Help Group.
Self Help Group An Integrated Approach For Socio-Economic Development of People With Affected by Leprosy and Disability

Urya Nag
The Leprosy Mission, State wide SHG Project Chhattisgarh TLM Project office Raipur, I/15 Shriram Nagar Phase -1, Near TV tower, Raipur, Chhattisgarh 492 007, India
E-mail : urya.nag@tmitindia.org

After the implementation of the State wide SHG Project Chhattisgarh from October 2005 there is a significant change in the life of the people. **Objective**: This study was designed to study the changes in active participation, accessibility to services, and the impact on the lives of leprosy affected after the implementation of the State wide SHG Project Chhattisgarh and other disabled in the community. **Methodology**: 500 beneficiaries were interviewed randomly, by a well designed schedule in Hindi by qualified social workers. Apart from interview with beneficiary, the secondary data and case studies were also studied. 8 districts of Chhattisgarh (Raipur, Bilaspur, Dhamtari, Raigarh, Janjgir Champa, Rajnandgaon, Durg, Mahasamund). **Results**: At the end of the study, the conclusions regarding the following changes were derived- in the attitude of the people, in economic condition, social participation, attitude of the community towards the Leprosy affected and disabled, change in accessibility/ and utilization of services and resources available in the community, impact on the lives of people how do they over come the challenges.

Measurement of Activity Limitation in Leprosy Disabled Persons Using SALSA

SL Narasimha Rao, Arunabala Chowdhary, PV Ranganadha Rao, Sundaresh Peri and B Vijayakrishnan
Lepra Society, Hyderabad, India
E-mail : ranganadha@leprasociety.org

**Introduction**: SALSA scale is in use for assessing subjects with disabilities. Assessing Leprosy clients with disabilities can be useful in the management and evaluation of prevention of worsening disabilities (POWD). **Methodology**: 53 treated Leprosy from a colony consisting of 532 people living with 135 treated leprosy subjects were selected randomly for SALSA assessment. **Results**: The SALSA scores of these 53 subjects along with visual activity muscle strength loss of feeling on Eyes, Hands and Feet, wound count and EHF grades as per WHO will be presented in the paper. **Keywords**: Leprosy, SALSA, Disability, EHF

Assessment of Participatory Restriction and Stigma in Leprosy Affected Subjects Using Participation Scale (P Scale)

SL Narasimha Rao, Arunabala Chowdhary, PV Ranganadha Rao, Sundaresh Peri and B Vijayakrishana
Lepra Society, Hyderabad, India
E-mail : ranganadha@leprasociety.org

**Introduction**: Participation scale developed by participation scale development team is used for assessing the severity of rehabilitation needs of pupils with disability with stigmatisate conditions. Leprosy being one of stigmatisate conditions, the use of participation scale in the group will throw light on the existing situation. **Methodology**: A Random sample of patients selected from a colony of 532 pupils living 135 treated leprosy patients were selected from Hyderabad, Andhra Pradesh, India for the study. The P. Scale format was translated to local language and administrated for the study group. **Results**: The P. Scale scores are enlisted for the total as well as items wise and results will be presented. The results will also be correlated with the EHF disability data. **Keywords**: P. Scale, Leprosy, Rehabilitation, Social stigma EHF.
Case study to Ascertain the Possibility of Undergoing Reconstructive Surgery for Leprosy Patients While on MDT But with Negative Bacterial Index

AJ Brightwin
Bathesda Leprosy Home & Hospital, Champa, Chattisgarh, India
E-mail: tlmchampa@tlmindia.org

Introduction: Since nowhere has it been experimented whether doing reconstructive surgery for the leprosy patients those who are under treatment (MDT), we did the same to find out whether the surgery has any negative impacts or any related problems, so that we can encourage RCS for those while on MDT with limitations. Methodology: 7 patients who had undergone RCS while on MDT and were followed up to find out whether any complications occurred or not, for 6 months from the date of RCS. Summary: The objective of the study is to find out the possibility of undergoing reconstructive surgery for leprosy patients while on MDT but with negative bacterial index. A case study of 7 patients who were explained about the purpose of the study, enrolled and undergone RCS were followed for 6 months after RCS to find whether any negative impacts such as post operative infection, reaction and neuritis etc., occurred within that given duration. Findings: Among those 7 patients, 1 was found with neuritis in 5th month after RCS and the others did not have any neuritis or reaction and none of them had post operative infection.

Quality OIF Life After Reconstructive Surgery

Sundarambal and MS Raju
The Leprosy Mission Hospital, Dayapuram, Manamadurai, Tamil Nadu, India
E-mail: tmdayapuram@tlmindia.org

Introduction: Physical impairment has been a problem in leprosy patients in spite of regular treatment, and this raises the level of stigma in society towards them. In this study, an attempt was made to study the impact of reconstructive surgery on the patients’ quality of life and to ascertain reasons for any dissatisfaction with the procedures. Methods: all patients who underwent reconstructive surgery in the last 5 years were questioned in detail about satisfaction, changes in lifestyle and self esteem and in functional ability. Results: Family and community acceptance was 80-100%. The quality of life after various surgeries differed. Improvement was seen in 72% after foot surgery, in 100% after eye surgery and 69% after hand surgery. Reasons for dissatisfaction included lack of change in physical appearance or that improvement in function fell short of expectations. Conclusion: Most of the patients expressed their feelings about feeling free to intermingle with society after their surgery.

Changing the Image of Leprosy in Chhattisgarh State of India

Kumar Sandeep, Deep Chander Kujur and Bupendra Kaushik
The Leprosy Mission, Diana Princess of Wales Health Education Media Centre, B-13/A, Institutional area, Gautam Budh Nagar, Noida, UP, India
E-mail: carelts@tlmindia.org

The familiar image of leprosy is deformity leading to eventual destitution and further social and economic hardships. Recently stigma reduction intervention trials have been started at Chhattisgarh in which the baseline survey has confirmed that one of the main reasons for stigma is deformity. MDT has been a wonder drug and has already cured more than 13 million people in the world. Prompt and regular treatment with MDT for 6 months for PB and 12 months for MB cases cure leprosy if patients come early enough to prevent any residual disabilities set in. There are also some wonder drugs for management of reactions and neuritis viz., corticosteroids, Thalidomide, Azathioprine, chloroquine etc. These drugs are now available at most PHCs under the integration and also offered free of cost. The main challenge then, is to motivate patients to report as early as possible to get treated promptly. This requires the active collaboration with communities, the families of patients and patients themselves. During 2006, hospital records of TLM Champa, shows 185 cases (never treated before) were registered for anti leprosy treatment out of which 68.6% are MB. The level of Grade II deformity has come down to 17% among new leprosy cases, which shows that we still have a long way to go towards control of this disease.

Key words: community based approaches, reduction of stigma.
Testing LEC Materials for Optimum Effectiveness

V Chetna1 and PSS Rao2
1TLM Health Education and Media Centre, Noida, 2 Research Resource Centre, TLM, Noida
E-mail id: timrrc@timindia.org

Introduction: Information Education & Communication commonly abbreviated, as IEC is an integral part of leprosy control program. To facilitate this program, several audio-visual aids are produced. Many of them may not have been properly field tested for better reach and greater impact. Without such scientific assessment prior to dissemination, the outcomes may result in poor effectiveness and wastage of scarce resources. Such an evaluation must be done scientifically with proper methodology.

Methods: In this paper, findings from a study testing selected IEC materials (posters, pamphlets, booklets, documentaries and spots) were tested. Four target groups (children, leaders, women and men) were used in three states of India. Effectiveness of the aid in terms of message clarity as well as on visual appeal, language, characters used if any, comprehension, reaction/opinion to the format used etc were determined.

Conclusions: Research is imperative in production of effective IEC materials. Key words: audiovisual aids, IEC material, field testing.

Claw Hand Reconstruction and Rehabilitation

Ajit Kumar Varma
Department of Rehabilitation Medicine, Patna Medical College, Patna, India
E-mail: ajitvarma592@yahoo.com

Objectives: Under the National Health Policy, Government of India achieved the goal of elimination of Leprosy as a public health problem in the month of March 2006 when the recorded prevalence rate (PR) came down to 0.84/10,000 population. There still remain a considerable number of cured leprosy cases with partial or complete claw hand deformities. Claw Hand deformities are commonly seen in Leprosy patients, which become more apparent when the patient opens out the fingers fully. They require medical and psychological rehabilitation to improve their quality of living.

Methods: So far the Department of Rehabilitation Medicine, Patna Medical College, India currently under the "Leprosy Reconstructive Surgery and Rehabilitation Program" admitted 130 cases, referred from the peripheral parts, between the period of January 2004 to October 2007. The patients were put to Pre-operative evaluation, Pre Operative exercises. Under regional block anaesthesia, Lasso procedure, Opponensplasty, and Half FPL transfer to Extensor Pollicis Longus were done as the case demanded. All these patients were put to vigorous post operative exercise regimen for the tendon re-education thereafter and splinting as well.

Results: Hand function evaluations were done at the end of every 3rd and 6th months. Any complications, deformities subsequent to surgery and exercises were noted.

Conclusions: The results were extremely satisfying. The patients were able to hold, grasp and pick up the objects comfortably. Leprosy cured patients with existing hand deformities must undergo the surgical rehabilitation program to improve quality of living.

Preference of MCR to Other Types of Protective Foot Wear

KDV Prasad
The Leprosy Mission, Vizianagaram, Andhra Pradesh
E-mail: kdvp80@gmail.com

Non compliance in usage of MCR chappals by leprosy afflicted has been a problem since long. To know the patient's reasons a study was conducted in Vizianagaram and East Godavari districts of Andhra Pradesh. Among those who normally use MCR chappals only 47% of them were able to continuously use the MCR footwear. The gaps are attributed to problems in getting repairs or immediate replacement. Yet 80% of the persons under study prefered only MCR footwear. Only 12% preferred to use foot-wear, other than MCR. 40% preferred to shift to other patterns if a safe and comfortable foot sole is fitted; and 25% said they have no mind to shift and the rest of 35% could not make up their mind. The results show that according to 75% of the MCR users, they have been identified as leprosy afflicted due to MCR footware. About 80% of the persons wearing MCR chappals under study expressed that the pattern of the MCR chappal is a means to identify the disease and as per the experience of 65% of the persons interviewed, it can be concluded that one of the main reason for stigma towards leprosy is the MCR footwear they use.
Reconstructive Surgery in Leprosy: A Glimpse from Lucknow

Arun Kumar Singh
P G Dept of Plastic Surgery, C S M Medical University, Lucknow, India
E-mail: singhkaran@hotmail.com

Leprosy is a disease which affects nearly all superficial structures and at all parts of the body. It affects the skin, the face, the extremities, the superficial nerves, thereby causing visible deformities and functional deficiencies. Hence the role of reconstructive surgery in rehabilitating Leprosy patients is immense. At the dept of Plastic Surgery, we are involved in treating these patients for the three decades or so. The facial deformities consist of nasal collapse with Leonine like facies. The nasal dorsum is augmented with grafts. Where mucosal shortening is exists, post nasal epithelial inlay skin grafts are put in as a preliminary procedure. Madarosis is corrected by hair grafting - free or pedicled. Large ear lobules in Leprosy are corrected by zig zag reduction. Testicular involvement leads to gynaecomastia which is corrected by periareolar subcutaneous breast removal. Atrophied testes can be replaced by testicular implants. Nerve involvement in the extremities gives rise to many problems both sensory and motor. They have been widely studied and lot of emphasis given on prevention and cure. Some sensory nerve and skin transfers have been done in an effort to provide sensation to important areas of the hand. A number of tendon transfers have been described and practiced. We are doing a different procedure in my institution. It entails dermodesis and pulley advancement. Trophic ulcers require debridement. Many heal thereby, but some are incalettrant and require some sort of surgical intervention or flap cover. In short, surgery for Leprosy entails a thorough knowledge of reconstructive surgery and hand surgery.

Change in Grasp Power After FDS and Non FDS Lasso Procedure

G Manivannan and Premal Das
The Leprosy Mission Hospital, Naini, Allahabad, UP, India
E-mail: tlmnaini@tlmindia.org

Providing improved grasp power after ulnar claw hand correction is one of the aims of lasso procedure. Studies reporting changes in grasp power with or without FDS lasso procedure are very few. Hence it was proposed to evaluate the difference in grasp power following lasso procedures in ulnar claw hand. Grasp power was measured using sphygmomanometer on 549 leprosy patients with ulnar claw hand of whom 171 had FDS of ring finger 289 Middle finger (Zancoli) 89 Non FDS lasso procedure. Pre operative assessments were made on Grasp power using sphygmomanometer. It was proposed to have postoperative assessments at the time of discharge & subsequently 3 months, 1 yr, & 5 yrs after surgery. In this paper the improvements 3months, 1yr, & after 5yrs are presented. At 3months improvements seen for Ring FDS, Zancoli & Non FDS were 15.8%, 11.9% & 17.5 Respectively. At 1 yr the improvements were 21.5%, 35% & 95% respectively. The numbers followed up after 5yrs were quite small for proper interpretation. It is concluded that in general Zancoli Lasso offers the best results. Key words: grasp power after lasso surgery, FDS lasso correction, lasso correction for claw hand.
Our Experiences with Re-Constructive Surgeries in Leprosy Deformities in Chhattisgarh Region

Kirshnamurti Kambal
Regional Leprosy Training and Research Institute (R.L.TRI), Raipur (C.G.), India
E-mail: kamble@nic.in

Introduction: We started doing commonest operative procedures for deformities in leprosy since 1999. These procedures include, Lasso surgery, opponensplasty, Tibialis posterior transfer and Temporalis muscle tendon transfer for lagophthalmos. After 10 years of follow up we are in a position to evaluate and compare the results of different RCS surgeries carried out in-patients of Chhattisgarh region. Materials And Methods: A detailed analysis of functional outcome was carried out in patients with different deformities in leprosy. 380-claw hand (4 finger and 2 finger), 64 thumb palsy, 96-foot drop and 60 lagophthalmos were operated upon. The patients ages varied from 10 years to 50 years, majority of them being in the 15 to 30 years age group. More than 60 patients had bilateral claw hand and about 20 patients had deformities of hand, foot and eyes together. The hands and feet were supple and free from contracture right from the beginning or had a course of pre-operative physiotherapy. The thumb and finger correction carried out in two separate sessions. The operative procedures carried out includes modified lasso, Brans's procedure for opponencioplasty, TPT transfer with lengthening of tendon achills and Temporalis muscle, Tendon transfer using palmary longus or TFL graft (modified by Dr. Vijay Kumar). Observation: The follow up period varied from 6 months to 8 years. In claw hand surgery the overall results obtained using standard criteria (Palnade 1976). The closure pattern returned to normal along with integration of movements in majority of the hands. Few patients had superficial minus deformity and PIP joint flexion limit after one year from surgery. In opponensplasty the range of movement was measured by thumb web-angle in relation to index, middle and ring finger. Majority of the young patient in age group of 15-30 years had 60° of range of movement. In foot-drop surgery majority of patient with average 4-year duration had range of dorsiflexion from 15° to 18°. Evaluation of operated cases of lagophthalmos was done by measuring the lid gap. The average preoperative lid group was 8 mm with maximum of 15 mm. The post operative lid gap was zero in all cases excluding 2 cases. These 2 cases has 1 mm to 2 mm lid gap left. Conclusion: The aim of Re-constructive surgery (RCS) in different deformity of leprosy is to improve appearance and range of movement in all cases. The surgeries advocated by Dr. Shrinivasan and Dr. Malviya have now become standard procedure for Re-constructive surgery in Leprosy. Our results are comparable with the earlier studies.

Risk Factors For Physical Incapacity at Moment of Diagnosis of 19.283 New Leprosy Cases, In Minas Gerais, Brazil

MAF Grossi, C Moschioni, JR Lambertucci and CMF Antunes
E-mail: crismoschioni@br.com.br

Introduction: The association between physical deformity and leprosy has often been described in the literature, although very few reports have analysed the magnitude and significance of such association with respect to the presence of physical incapacity. The indicators associated with physical incapacity and the magnitude of each indicator on the resultant prognosis have been examined. Methodology: The present study is a retrospective, descriptive and exploratory analysis of a population of 19,283 patients whose medical condition was notified to the Sistema Nacional de Informações de Agravo do Notificação (SINAN, Minas Gerais, Brazil) during the period 2000-2005. The data was related to each patient were analysed using the EPI-INFO and SPSS software. Results: The risk of a patient developing level II incapacity was 16.5 fold higher in patients with lepromatous leprosy in the moment of diagnosis, and 12.8 fold higher in patients presenting the borderline form. The occurrence of more than one injured nerve increased the chances of a patient developing level II incapacity 8.4 times, while an age of equal or higher than 15 years increased the probability 7 fold. Individuals presenting the multibacillary form were 5.7 times more vulnerable to deformities than patients presenting the paucibacillary form. The risk of deformities was 5.6 times higher amongst patients lacking formal education. The risk of developing level II incapacity increased 4.5 times when a tuberculoid leprosy was detected during diagnosis. Conclusions: The identification of the factors associated with physical incapacity must be considered an important approach at the moment of diagnosis of leprosy. These factors are considered strong indicators of the prognosis of physical incapacity, allowing to planning actions for treatment and monitoring the patient with high risk of physical incapacity and deformity. Keywords: leprosy, physical incapacity, risk factors.
Observation of Long – Term Efficacy of Operations on 41 Leprous Foot – Drop with Trans – Position of the Tibialis Posterior Muscle

WANG Zai ming and CHEN Jia kun
Shanghai Skin Disease & STD Hospital, Shanghai 200443, China
E-mail : clab@vip.163.com

Objective: To determine the operation effect of the tibialis posterior muscular transposition on leprous foot – drop orthopedic.
Methods: 41 cases of leprous foot – drop underwent the interosseous or subcutaneous method for operation. Results: The operation for 41 cases showed that it was effective in 40 of them (98%), excellent in 27, good in 8, medium in 5 and in – effective in 1. The efficacy had a close relationship with the strength of the tibialis posterior, condition of the patients such as deformity and contracture of achilles tendon, and methods of operation. Based on the analysis of the effects of operation, the Interosseous method was superior to subcutaneous method. We found that some patients’ plantar arches became flat after operation. For this reason, we selected 4 cases to take out the paralytic pretibial muscle, fix its distal terminal to the terminal point of tibialis posterior and its to the gastrocnemius muscle. The author modified the procedure for case of olisthe of the tendon after operation. Conclusion: The interosseous method is superior to the subcutaneous method. Key words: tibialis posterior transposition; foot – drop; circumt – tibial procedure; interosseous procedure.

An Effect Assessment of Three Years Leprosy Rehabilitation Cooperative Project

Xu Yaping, Shen Yunliang and Yan Junhua
Zhejiang Provincial Institute of Dermatology, Deqing, Zhejiang, P R China 313200
E-mail : clab@vip.163.com

Objective: To assess the three years cooperative project effect of prevention of disabilities between the leprosy mission international and Zhejiang province. Methods: Project included neuritis survey and treatment, eye, hand, foot self care, footwear use, treatment of complicated ulcers and prostheses installing, regular rehabilitation interventions have been implemented to rehabilitation objects by rehabilitation professional doctors and doctors in villages. Results: Red eyes, hands cracks, foot cracks and ulcers of persons who have self care decreased by 74.47%35/47% 82.93% 34/41 and 36.79% 39/106; effective rate of complicated ulcers integrated treatment 30.86%(25/81); ulcers cure rate of persons who use footwear 36.89%(38/103); satisfactory rate of prostheses use 90.00%18/20. Conclusion: The successful implementation of project took effect to improve the living standard of people affected by leprosy, in favor of extending this project further. Key words: Leprosy rehabilitation Prevention of disabilities.

Comprehensive Treatment of Planter Ulcers of 42 Lepers for 6 Months

Pan Meier, You Weiping and Wang Jingquan
Institute of Dermatology of Zhejiang Province, Wukang, Deqing-313200, PR China
E-mail : clab@vip.163.com

Objective: In order to study the comprehensive treatment effect of leprosy planter ulcers. Methods: 42 lepers lived in a leprosy colony were treated with a complex therapy, including wound clearness, appliance of Shukangbao natural ocean biomembrane, self care of foot. Results: After 6 months comprehensive treatment of 76 ulcers of 42 cases, we have gotten a better effect of 32.89% cure rate, 50% significant effect rate, 85.53% effective rate. It is revealed that simple ulcers and ones with short ulcer duration had much better effect. Conclusion: Reducing foot pressure and using Shukangbao natural ocean biomembrane, which had the function of bacteria inhibition and renewing muscle, can greatly prompt the planter ulcer cures. It is suggested that the comprehensive therapy be spread in leprosy field. Key words: Leprosy; Planter ulcer; Self-care of foot; Comprehensive treatment.
P-311  Non-Conditional Logistic Regression Analysis of Risk Factors on Disabilities of Leprosy

Lvchengzhi and Songshunpeng Shiyuejun  
Dalian Dermatology Hospital, Dalian-116021, PR China  
E-mail: clab@vip.163.com

Objective: Analysis of factors impacting on the disability of leprosy and provide the scientific basis for formulating the preventive strategies. Methods: Based upon the individual records of the living leprosy cases were collected by local leprosy workers of liaoning, using non-conditional logistic regression analysis model to analyze effective factors on disability of leprosy. Results: The results of single factor non-conditional logistic regression analysis are: leprosy type, marriage, education, native place, standard of living, the reaction. The results of multiple factor non-conditional logistic regression analysis are: native place, standard of living, the reaction, leprosy type. The equations of linear were Y=1.658+4.051(leprosy reaction)+1.515(leprosy type)+1.012(native place)-0.002 (standard of living) Conclusion: The reaction, leprosy type, native place, standard of living, can significantly effect the disability of leprosy. It is very effective to prevent the disability of leprosy through controlling the reaction, treating the patient in time, made their life rich and increasing the standard of living to improve economical rehabilitation. Key words: Leprosy Disability non-conditional logistic regression analysis.

P-312  The Analysis of the Reasons for Disabilities in 51 New Detected Leprosy Patients in Liangshan Prefecture

Lu Yuanhe  
E-mail: clab@vip.163.com

Objective: To investigate the main cause of disabilities of leprosy patients and find the effective methods to decrease the disability rate. Methods: the materials were mainly obtained from case reports keept in the counties CDC and database in Liangshan and then filled the questionnaire after interview with the patients, relatives and doctors. Results: 1. the main cause of the disabilities were delay of diagnosis and treatment of leprosy and leprosy reaction, the average delay periods were 4.92 years and the longest were 12 years. 52.94% of the causes were medical treatment problems, for example, multiple times misdiagnosis and mis-treatment for leprosy reactions. Meanwhile, 47.06% of the causes were from patients themselves. for example, 13.73% of the patients did not know the disease. 17.65% of patients refused the therapy because they feared discriminations. 7.84% of patients' diagnosis were delayed due to the poverty and transportation. There were 36 patients who experienced leprosy reaction, most of them developed disabilities before they were diagnosed. 3. 89.1% of villagers and 15.79% of doctors feared the leprosy patients discriminated them. Conclusions: It is important to improve the training of primary level doctors and raise the technical level of leprosy diagnosis and health education. Long time intensive and extensive health education for the population is especially significant. Key words: leprosy patient disability analysis.

P-313  Effect of Microcellular Rubber on Pressure Distribution Under the Walking Foot

Mannam Eberzer, S Karat, Z Solo, T O’Shea and S Behura  
Schollchtein Institute of Health Research and Leprosy Centre, Karigiri, TN, India

Introduction: The objective of the study is to measure the effect of different shoes (softness) of 12 mm Microcellular rubber in reducing peak pressures at vulnerable areas under the foot. Methodology: Plantar pressure measurements can be measured using various techniques with a mat with pressure sensors placed on the insole and then making the subject to walk. Tekscan is one such machine which when calibrated is accurate and records even minor differences in pressure reduction. The pressures were measured in shoe with and without the MCR insole inserts with the subjects walking. The shores of MCR tested were 10, 15 and 20 degrees. A total of ten subjects were used. Plantar pressures from five normal persons and five leprosy patients with anaesthetic feet were measured. Results and Conclusions: The results showed that 10 to 15 degree shores to be optimum and 20 degree MCR was not effective in reducing peak pressures.
Leprosy: Basic Facts for Field's Workers Engaged in Leprosy Work Under NLEP

AK Agarwal
Department of Physical Medicine & Rehabilitation CSM Medical University, Lucknow, India
Email: drshokagarwal@yahoo.co.in

More than fifteen leprosy screening cum training camps for selection of leprosy cases for RCS were organized at PHCS of Lucknow, Barabanki & Hardoi districts of Uttar Pradesh in 2007 with the help of deptt of Medical Health & Rotary International. With the passage of time, the field workers involved in NLEP, require proper orientation and in-job training to improve their efficiency, motivation & service delivery so as to reach unreached cases. This presentation is for their skill development leading to effective implementation of deformity prevention & medical Rehabilitation (DPMR).

Tuning the Motor Balance in the Fingers when Performing a Tendon Transfer for Claw Hand Correction

Willem J Theuvenet and Max H Haloua
Department of Plastic, Reconstructive, Aesthetic and Hand Surgery, Regional Hospitals of Apeldoorn, Deventer and Zutphen, The Netherlands, The Leprosy Mission International and The Netherlands Leprosy Relief
E-mail: wjtheuvenet@wxs.nl

When we want to correct a claw hand due to ulnar and/or median nerve paralysis, we are often faced with different degrees of clawing in the several digits while we have only one motor-tendon unit that we will use for the tendon transfer. Surgical options that we have for fine-tuning each finger in order to achieve a well balanced hand are discussed.