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Though resistance to Dapsone (DDS) was confirmed by foot pad study of mice in 1964, more convenient in vitro method which circumvent the tedious and expensive in vivo test was not available. Recently Kai et al and Williams et al have reported independently that DDS resistant strains of M.laprae reveal missense mutations at highly conserved amino acid residues 53 or 55 in the folP1 gene. The missence mutations T531, P55R, P55L suggests that this sulfone resistance-determining region (SRDR) of folP1 are responsible for the majority of dapsone resistance.

With use of primers which amplify the SRDR, we isolated two variant strains of M.leprae from Korean leprosy patients who are suspicious of resistance to dapsone by PCR-SSCP of the folP1 gene. Direct sequencing of the folP1 region of M. leprae variants revealed two missense mutations were identified. Two variants strains showed A to G and C to G substitutions at nucleotides 157 and 164, respectively. We screened the sulfone resistance-determining region of DHPS in 50 patients. The frequency of 157 and 164 guanine substitution was 11 (22%) patients and 6 (12%) patients, respectively, in our study population. The mutations at nucleotides 157 and 164 would substitute Thr to Ala at amino acid residue 53 and Pro to Arg at residue 55 of DHPS, respectively.

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# Mo 354

#### DETECTION OF MYCOBACTERIUM LEPRAE BY PCR IN NASAL AND BUCCAL MUCOSAE IN LEPROSY PATIENTS AND HOUSEHOLD CONTACTS

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Leprosy is a disease of wide clinical and immunopathological spectrum, which causative organism, Mycobacterium leprae may occur in large amounts in host tissues without causing clinical signs and/or symptoms. The clinical manifestations correlate with distinct immunologic patterns, varying from a strong cell-mediated immunity to M.leprae with a predominantly Th 1-type pattern of cytokine production in tuberculoid leprosy, to an absence of specific cellular immune response to M.leprae antigens in lepromatous leprosy related to predominance of Th 2-type response and exacerbation of humoral immune response. Currently it is assumed that transmission occurs by the contact of susceptible individuals with untreated multibacillary patients, however it has been discussed the possibility that not only leprosy patients discharge bacillus, since leprosy bacillus were found in the nasal mucosa from household contacts of multibacillary patients. Because the M.leprae cannot be cultured in vitro and it is virtually impossible to assess exposure and the onset of the infection, the PCR holds promise as tool to detect subclinical infection with enough sensitivity and specificity for the use in epidemiological studies. In the present report the PCR was applied with a pair of primers described by Yonn et al., (1992) for detection of M.leprae in nasal and buccal mucosae of patients and its household contacts. The DNA of the specimens of nasal and buccal swabs was extracted using lysis buffer (Nacl 400mM; EDTA pH 8.0, 50mM; Tris-HCl, 25mM) and proteinase K (100mg/ml). The PCR was standardized according methodology proposed by Innis et al., (1990) to amplify a 372bp specific fragment from

M.leprae genome. The reaction results were visualized in 1.5% agarose gels stained with ethidium bromide. A family consisting of a 51 year old borderline tuberculoid patient and 5 household contacts was analyzed. Nasal swab specimens of patient and 4 (80%) of his household contacts was PCR positive, while buccal swab specimens was PCR positive on the patient and 1 (20%) of his household contacts. The difference of PCR positivity between nasal and buccal specimens reinforces the idea that the nasal mucosa is the main way of M.leprae transmission. The use of molecular biology in the detection of M.leprae, as in the genetic characterization of susceptibility will bring new insights for epidemiological research of the disease allowing to discuss the role of the healthy carrier in transmission of M.leprae and the early elimination of the infection source.

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# **Di 04**

#### IS DELAY IN TREATMENT AFTER DIAGNOSIS RELATED TO AN INCREASE IN DEFORMITY?

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OBJECTIVE : Over a period of 2 years from 1997 to 1999, many leprosy patients were reported, with impairments, but not at all treated with any anti leprosy drugs, in the district of Sahib Ganj - Bihar. This initiated us to find out the occurrence of impairment for untreated delayed leprosy patients.

DESIGN : This is a retrospective cross sectional study, in which 237 patients with impairments were interviewed and assessed for disability with W.H.O. grade 0,1 and 2. Controls were chosen retrospectively who completed treatment, with M.D.T. successfully and there were 128 patients in the control group.

SETTING : 40 primary health centres and the subcentre clinics of the districts where patients were reported.

PARTICIPANTS : Untreated leprosy patients who attended the centres and the patients who completed M.D.T. treatment successfully.

MAIN OUTCOME MEASURES : Percentage of untreated leprosy patients who developed impairment and the percentage of successfully treated patients who developed impairments.

RESULT : Occurrence of impairments for untreated delayed patients (5 years) were 89% (N = 237-211) were as 36% (N= 128-46) of patients developed impairment who successfully completed

#### M.D.T. treatment.

CONCLUSION : An increase in the occurrence of impairment for untreated delayed patients (89%) indicate, that the delay in treatment after diagnosis is related to an increase of deformity.

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# **Di 100**

# A STUDY OF AETIOLOGICAL FACTORS FOR PLANTAR ULCERS IN A LEPROSY REHABILITATION HOME

S.Kumaravel, Syed Muzaffarullah & Dr.Samson Varaprasad Word & Deed India, Hyderabad

Plantar Ulcers are a major cause of morbidity in leprosy. Foot deformity is a major contributor to the development of plantar ulcers. Leprosy rehabilitation homes usually provide succor to destitute patients, many of whom have foot deformities.

This study analyses the pattern of plantar ulcers in 45 residents in a rehabilitation home and their relationship to etiological factors that bear upon their rehabilitative occupations. The use of MCR footwear with or without prosthesis was found to reduce healing time. Residents with plantar ulcers were either admitted to a hospital unit or managed in their residential home. Hospitalization versus home based rest & care revealed no differences in healing time. The study also highlights the need for occupational therapeutic measures to modify rehabilitative occupations that carry higher risk for repetitive ulceration.

The recommendations for the study are that good self help based home care measures are effective in reducing healing time of ulcers. Modifications in jobs assigned to rehabilitative home inmates in accordance to the status of their foot are needed.

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# Di 108

#### MULTIDISCIPLINARY APPROACH IS NEEDED FOR TREATING RECURRENT PLANTAR ULCERS IN LEPROSY

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Plantar ulcers in leprosy have a multifactorial aetiology. Plantar anaesthesia, vascular impairment, structural alterations / abnormalities, muscle palsies and repetitive trauma occurring to the foot in the daily routine of living are some of the important factors responsible for recurrent plantar ulceration. Healing of plantar ulcers is not much of a problem with advances in surgical techniques. It is the recurrences which are annoying.

Most of the approaches described in literature deal with one or more factors at a time to heal the ulcers and prevent recurrences. We recommend a comprehensive multipronged strategy for managing these ulcers in a willing patient. The approaches include posterior tibial neurovascular decompression, correction of muscle palsies, a protective footwear and health education about how to look after an anaesthetic foot. Patient co-operation and understanding of the problem is equally important because he is the one who has to look after himself.

The paper highlights the above issues and brings out relative importance of each factor in geneses and recurrence of plantar ulcers in leprosy affected persons.

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# Di 126

BIO MECHANICAL PROBLEMS OF THE FOOT IN LEPROSY Syed Muzaffarullah, Raj Gopal Reddy, Suman Jain & Sujai Suneetha Lepra India, Hyderabad

All the joints of the foot play an important role in effective heel-toe walking. Malfunction or destruction of certain joints in the foot will affect walking and produce Bio-Mechanical problems. This in turn will cause abnormal movements in other joints leading to their destruction or malfunction. The anaesthetic foot in leprosy is prone to much bony damage. Abnormal foot function compounded by anesthesia nearly always leads to long term ulcer problems. Biomechanical problems in the anesthetic foot produces localized high pressure points and a tendency for ulceration. This presentation deals with the different bio-mechanical problems encountered in the foot of leprosy patients seen at Dhoolpet Leprosy Research Centre & Blue Peter Research Centre. The biomechanics of the foot were assessed in 91 leprosy patients (Grade O - 41, Grade 1 - 27 & Grade 2 - 23) in terms of inversion & eversion at the mid tarsal joint and pronation & supination at the sub talar joint. Biomechanical problems were detected in the foot in 26 out of 91 patients (28%). Inversion of the foot was the most commonly encountered biomechanical change (8 out of 26, i.e. 30%).

Principles of management for the different biomechanical abnormalities and the use of specialized MCR prosthesis to counteract these bio-mechanicai abnormalities are discussed. The application of these principles will go a long way in the prevention of plantar ulceration and improve POD activities.

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# Di 162

#### PREVENTION OF SECONDARY IMPAIRMENTS AND ITS SEQUEAE DUE TO PERIPHERAL NERVE DAMAGE IN LEPROSY - WHAT CAN OCCUPATIONAL THERAPY DO?

Paul Raj Kumar P, Prem Kumar R, Farah Lenin & Kasthuri Paulraj Schieffelin Leprosy Research And Training Centre, Karigiri, Vellore District, Tamil Nadu

The paper aims:

(1) to discuss some of the occupational-therapeutic methods of treatment both physical and psychological used in 3 groups of patients inorder to limit development of the impairments and/or activity limitations (disability) and/or participatory restrictions (handicap),

(2) to explain how the physical intervention methods including splinting (using non-P.O.P. materials) done in the occupational therapy department for patients with hand impairments (weakness or paralysis) helped them in preventing secondary impairments and its sequelae,

(3) to highlight on how the treatment media s like recreational games, music, therapeutic-activities (arts,crafts,etc.) helped the in-patients (with and without deformities) who were staying in the hospital for a short or long duration, in facilitating some of their inter-personal and intra-personal functions or skills, (4) to describe how patient-education provided to the in-patients through focus group discussions helped them in gaining knowledge about leprosy and its related problems.

The different approaches and measures used will be discussed. Photographs depicting the whole methods, activities and the model of the splints given will be presented.

We hope some of these methods will be found useful for the institution-based outreach services as well as the community-based rehabilitation set-ups.

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#### Di 169

# IMPACT OF SELF-CARE PRACTICES AMONG PATIENTS WITH GRADE-II DISABILITY

Sathi Raju & K.Eswar Rao

Secunderabad

The Junagarh leprosy project implemented the POD programme in 1998 and established the self-care practices for disability cases in 1998.

The major prevention of worsening of disabilities (POWD) activities included are demonstration of care of eyes, hands and feet, ulcer management, footwear provision and re-ablement of disabilities. To make the leprosy affected persons understand about disabilities and to adopt life long habits, demonstrations / care centres at PHC level have been established. Periodic monitoring is done at home during follow up assessment by para medical staff.

114 disability cases have been taken for study and observed that the female group understand about self care practices better compared to male group. In case of males, in spite of having better knowledge, the practice was poor. The results of self care practices are encouraging in hands and eyes, but improvement is required in foot care. The methodology and findings of the study are discussed in this presentation.

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#### Di 189

#### COMMUNITY BASED ULCER CARE

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Plantar ulcer is one of the major complications in leprosy. Institutional care though effective can be of long duration resulting in economic loss and social disruption. A study was done at Karigiri to assess the role of community based ulcer care in patients with WHO Grade 2 disabilities, released from treatment. This included 73 persons with plantar ulcers: 52 simple and 21 complicated ulcers. Patients were given simple dressing material consisting of MSGA solution, dressing gauze and bandages and were taught self care of feet. Those with infected ulcers were treated with a course of antibiotic. Appropriate MCR foatwear was provided and those who refused MCR, were encouraged to use any footwear. Family members were also taught care of feet and encouraged to participate in the patient activities. Patients were followed up at home once every month, during which the patient and family members knowledge and ability to do a dressing effectively was assessed and corrected when needed. Follow up on ulcer status was done 6-8 months later. Of the 73 ulcers, 38 (53 %), 8 complicated and 30 simple ulcers had healed. Among various factors that could contribute to the non-healing or delay in healing, younger patients, agricultural laborers, non-involvement of family were significant

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# Di 211

# INNOVATIVE POD PROGRAMME -IMPLEMENTATION AND RESULTS

Rajini Kanth Singh, Mahato & Lakshmi Singh, Secunderabad

A leprosy control project covering one million population has been in operation since seven years with NLEP guidelines. Prevention of disability programme has been integrated into the SET work since three years. All paramedical workers are given in - service training in POD.

Special physiotherapy care is given to those who require it. The new techniques in Podiatry also have been incorporated. The recovery rate in the nerve impairment is found to be 70%. The methodology, the frequency of follow up, documentation, the results and the improvement which can be made in the programme are discussed.

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# Di 229

#### FACTORS IN PLANTAR ULCER PREVENTION - BASELINE SURVEY AND RECOMMENDATIONS FOR AN INTERVENTION

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Aundipatti Taluk in Tamilnadu, India is endemic for leprosy. Intensive leprosy control programme has been carried out by Arogya Agam a local NGO since 3 decades. The active prevalence of leprosy has been brought down from 20 to below 2 per 10,000 over the last 10 years. However there are 560 cured leprosy patients with grade 1 and 2 disability and many have plantar ulcers. The project now has more time to concentrate on Prevention Of Disability (POD) with emphasis on reduction of the prevalence of plantar ulcers.

A group of 150 leprosy patients with plantar ulcer or who are highly prone to plantar ulcers (high-risk group) have been selected for intense inputs. A baseline study was made to suggest methodologies. The findings so far indicate that knowledge, practice of foot care and family support all play a role in ulcer prevention. This is expected but it is important that leprosy workers believe this in order to implement disability prevention services. Details of recommendations will be presented.

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#### Di 239

#### AN ASSESSMENT OF THE EFFECT OF PROTECTIVE FOOTWEAR IN 571 LEPROSY PATIENTS WITH PLANTAR SENSORY LOSS

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An evaluation of the effectiveness of protective footwear used for 3 years to prevent plantar fissure and ulcers in 571 leprosy patients with plantar sensory loss in 6 leprosy rehabilitation pilot areas in Guizhou Province was made. The results showed that during the period of 3 years, the number of patients with plantar fissure, the number of plantar fissures, the number of patients with plantar ulcer and the number of plantar ulcers decreased by 96.97%, 97.92%, 46.59% and 53.95% respectively. The effect was excellent. It is observed that the protection of protective footwear is quite good in preventing the occurrence of plantar fissures, plantar ulcers and consequent disabilities.

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# Di 276

#### DISABILITIES AMONG NEW CASES DETECTED IN CHINA - 1989 TO 1998

Yan Liangbin, Zhang Guocheng, Li Wenzhong, Jiang Cheng, Chen Xiangsheng, Yu Meiwen & Zhu Chengbin

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This study is to analyse disabilities among the new cases detected in last 10 years and attempt to provide with scientific information for making prevention policy. All of individual data of 22437 new cases from the whole country detected 1989-1998 are provided by the leprosy surveillance system, the National Center. Disability rate among new cases 1989 was

46.49% and 32.31% in 1998, respectively. 25.5% got disability grade II in 1989 and

20.23% in 1998. Disability rate in 18 provinces is over 40%. Disability grade I and II among disabled people are 37.86% and 60.64%, respectively, and 1.5% got deformities like loss of evebrows, facial paralysis, collapsed nose, etc. Disability rate below 15 year group is 24%, 15-65 39.85% and the group over 65 years 53.33%. About 29.85% of disability occured within 2 years after diagnosis, and 48.82% and 61.17% of disability occurred more than 2 and 5 years after diagnosis, respectively. About 52.9% of disability is related to leprosy reaction, and 46.1% of disabled cases got more than 3 nerves damage. Disability grade II rate among PB cases (28.99%) is higher than MB cases (22.04%). Disability rate among new cases in China is still very high, but has been decreased in last ten years. Disability rate is very different because of delayed diagnosis, leprosy reaction and different type of leprosy, but there is no difference between age and sex. Early case finding, regular treatment using MDT and effective treatment of reaction are effective method of prevention of disability among new detected cases.

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# Di 282

#### EVALUATION OF EFFECTIVENESS OF LEPROSY REHABILITATION PILOT PROJECT FOR THREE YEARS IN FOUR COUNTIES IN YANGZHOU PREFECTURE OF CHINA

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To evaluate the effectiveness of leprosy rehabilitation pilot project for 3 years in order to provide scientific basis for further implementation. A total of 3125 active or cured leprosy cases were selected to carry out early detection and treatment of neuritis, self-care of eyes, hands and feet, application of footwears, treatment of complicated plantar ulcers, and installation of prosthesis. The study was based upon the national uniform protocol. Among 8 cases with neuritis, nerve function was fully recovered for 20 nerves and significantly improved for 2 nerves. The secondary impairment on eyes, hands and feet was improved at different levels.

66.67% of complicated plantar ulcers were cured, among which 19.82% relapsed. The rate of cases with the suitable prosthesis was 83.79%. The leprosy rehabilitation pilot project is effective for preventing occurrence and worsening of disability and has play a positive role to strengthen the life quality of patients. However, there is still some difficulties in extensive implementation, and it should be integrated with socio-economic rehabilitation.

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#### Di 297

#### MODIFIED PATELLA TENDON BEARING BRACE FOR THE NEUROPATHIC FOOT IN LEPROSY

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Green Pastures Hospital in Pokhara Nepal, has been functioning as a tertiary referral center for clinical rehabilitation of people affected by leprosy for over 20 years. Locally available resources have been used to produce orthopaedic devices needed for the management of leprosy complications. The care of neuropathic limbs has always been an area of special interest of the hospital s care team.

Warren suggested a complete immobilization of the neuropathic foot in a plaster of Paris for a prolonged period until bone healing is achieved. Metha et al described a procedure for the immobilization through an orthotic walker. Ankle Foot Orthosis were described earlier as well by Marzano. However, in Green Pastures, we have designed a modified Patella Tendon Bearing (PTB) Brace which is bivalved and gives total contact in order to distribute the weight more evenly and also using the patella, medial condyle and postenor side for weight bearing. This results in a complete weight relief for the neuropathic foot. The production of the device is relatively simple and the cost is low since local material is used.

A posterior and anterior plate are made from High-Density-Polyethylene (HDPE) pipe (commercially available drainage pipe) and heat moulded unto a plaster cast. High density foam rubber covers part of the plates to give adequate comfort and total contact. Leather belts connect the anterior and posterior plates and a rocker is fixed on the plantar side to allow heel to toe gait.

The resultant PTB brace is rigid but lightweight. It gives adequate stability and immobilization for both the period of hospitalization, early mobilization and a prolonged period of weight relief. It can easily be removed and adjusted if needed. Pressure sores from the brace have not been seen. The cost of materials in our setting is approximately 920,- NRS (13\$).

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# Di 301

#### PLANTAR ULCERS IN LEPROSY : PATIENTS' PERCEPTIONS AND TRADITIONAL PRACTICES OF CURE

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Plantar foot ulcers are a major reason for hospital admission among leprosy patients. Self-care of anaesthetic feet is a significant health education challenge for leprosy health care workers, and many patients with anaesthetic feet have recurrent ulcers despite repeated health education. In order for health education to be successful in bringing about a change in behaviour, it needs to take into account the patients own perceptions of how ulcers occur, and traditional practices of healing. One hundred consecutive patients admitted for ulcer care at a major leprosy referral hospital in Nepal, were interviewed using a pre-tested questionnaire. Data collected included patients occupation, age, district of residence, as well as data on their leprosy disease and ulcer history. This study will assist health educators in identifying commonly held beliefs and practices, which may aid or impede foot ulcer care.

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# Di 309

#### SURGICAL MANAGEMENT OF COMPLICATED FOOT ULCERS :A HOSPITAL BASED PILOT STUDY

Mark Macdonald, Krishna Kandel & Paul Roche

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Complicated foot ulcers occurring in anaesthetic feet in leprosy patients are a major cause of ongoing morbidity and hospital admission. These lead to loss of income, family disruption and increased risk of further damage.

A prospective pilot study of 44 patients was carried out at a tertiary leprosy referral hospital to review current patterns of management of complicated foot ulcers in leprosy, requiring surgical intervention. The place of radiology, pre and postoperative antibiotics, anaesthetics usage, and wound dressings was correlated with healing time. Results of bacterial flora and antibiotic sensitivity were also recorded. In addition correlation between clinically superficial ulcers (plantar aspect of 1st metatarsal head) and underlying septic arthritis, on positive aspirate culture, was seen.

Discussion of results, trends in management and areas for future study are presented

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# Di 376

# SURGICAL RECONSTRUCTION OF IRREPAIRABLE ULNAR NERVE PALSY

Dr.Turker Ozkan, Dr.Kagan Ozer, Dr.Ahmet Bicik & Ayse Yuksel, Istanbul, Turkey

Seventy-two patients with irreparable ulnar nerve palsy having undergone lumbrical replacement with 3 different tendon transfer techniques were assessed 16 to 79 months after surgery. Mean age of the patients was 32.2 (9-57). Forty five patients were reconstructed with the flexor digitorum four-tail operation (FDS-4T), 12 with ECRL four-tail operation (ECRL-4T), and 15 with Zancolli s Lasso Procedure (ZLP). The mean paralysis times for each group of operations were 75 months, 33 months, and 43 months, respectively. Of those patients being reconstructed with FDS-4T, had a mean follow-up of 42 months, patients with ECRL group has 43 months and ZLP group had 60 months. Grip strength measurements, improvement rate of active range of motion at the PIP joints, patients ability to fully open and close their hands, and the sequence of phalangeal flexion were noted along with a subjective questionnaire. Grip strength measurements were expressed as the percentage of the contralateral extremity and the improvement rate of active range of motion was obtained by the comparison of pre- and postoperative values.

Mean grip strength measurements were 68% in the FDS-4T group, 64% in the ECRL-4T group, and 48% in the ZLP group. Claw-hand deformity was totally corrected in 28 patients (59%) in the FDS-4T group, 8 patients( 66%) in the ECRL group, and 9 patients in (56%) in the ZLP group. Residual flexion contracture at the PIP joint remained in 9 (20%) cases in the FDS-4T group and 4 patients in ECRL-4T group. Swanneck deformity developed totally in 7 fingers in all groups. Age, sex, mean follow-up did not relate statistically to the functional outcome. However, preop extensor lag, wrist flexion contracture, mean paralysis time, type of operation and type of injury significantly affected the functional outcome.

In conclusion, FDS-4T operation was found to be the most effective technique in not only correcting the claw hand deformity, but also in restoring grip strength, especially in patients with longstanding paralysis, and some degree of flexion contracture at the IP joints. Zancolli s Lasso procedure was also effective in correcting claw hand deformity but the results in patients having at least 30 ° of extensor lag at the PIP joint were not satisfactory. Lateral band attachment in those cases either with ECRL or FDS was thought to reveal superior results.

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# Di 401

#### HEALING OF PLANTAR ULCERS IN THE FIELD CONDITIONS OVER A PERIOD OF ONE YEAR OBSERVATION

Ravi, Jayaraj & Srinivasan, The Leprosy Mission, Vizianagaram, Andhra Pradesh

The study is undertaken to know the rate of healing of plantar ulcers in the field areas in Visakhapatnam District. Leprosy patients with plantar ulcers are 881 initially in the district. The patients with ulcers are screened and again examined after one year. The patients are taught Self Care technique in field. Dressing kits are provided monthly and MCR shoes are supplied during this period. Patients continue their routine activities at home.

The patients examined at the end of the year are 757 of which 239 patients showed complete healing of the ul-

cers, giving the healing rate of 31.6%. It is observed in 464 (61.3%) patients that ulcers are static and in 54 (7.1%) became worse. Age, sex, wise data is presented.

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# Di 402

#### FUNCTIONAL ADAPTATION IN LEPROSY

Kamaraj Arulmozhi, B.P.T, The Leprosy Mission Hospital, Naini, Allahabad, Uttar Pradesh

Objective Objective: To improve quality of life of a 60 year old man with gross secondary deformities of leprosy.

Setting Setting: The Leprosy Mission Hospital - a large referral center at Naini, Allahabad, Uttar Pradesh, India.

Brief descriptiondescription: A 60 year old man with gross secondary deformities of leprosy was left in The Leprosy Mission Hospital, Naini by some helping hands. He was emaciated, totally uncared, dragging himself to move about with less hope of social integration. Clinically he presented with. 1.Complicated grade 4 ulcers, foul smelling with maggots in bilateral swollen hands and feet. 2. Triple nerve palsy - bilateral 3.Flail right ankle joint (neuropathic). 4.Total absorption of fingers and toes. The treatment plan, as any one would think, is to do amputation and make him prosthesis dependant. But the medical team here felt that this would make him more dependent than help him and tried a different way of management. The poster presentation will tell you THE ROAD TO HOME for Raghubansh..

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# Di 413

#### P.O.D. KIT TO TRAIN LEPROSY AFFECTED PERSONS IN SELFCARE METHODS

# Dr.Nuthakki Brahmachary S.R, Ongole, Andhra Pradesh

Deformities in leprosy can be prevented/corrected/arrested from further deterioration if the leprosy effected persons/their family members/community volunteers are trained in simple self care methods. Thereby the leprosy effected persons can live with their family and practice self care methods by themselves/family members/community volunteers. This also helps in prevention of stigna towards leprosy. For the training of leprosy effected persons/family members/community volunteers, a simple kit is devised by me for use of leprosy effected persons. While I was working as District Leprosy Officer, Chittor, I have tried the kit on 170 disabled patients in G.L.C. Unit, Puttur which has yielded very good results.

Hence I feel, if this type of kit is supplied and training is imparted to field workers, who in turn will train leprosy effected persons/their family members/Community/Volunteers, it will go a long way in prevention and mangement of deformities in leprosy.

This process will help the leprosy effected persons to prevent and manage the deformities and live with dignity, and self-reliance.

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# Di 418

# PLAN FOR RECONSTRUCTIVE SURGERY AMONG DISABILITY PATIENTS OF VISAKHAPATNAM DISTRICT

Sudhakar, Jayaraj & Srinivasan, Vizianagaram, Andhra Pradesh

The study is undertaken to analyse the leprosy patients requiring re-constructive surgery among the disability patients of Visakhapatnam, coastal district of Andhra Pradesh. There are 2821 patients with disability. It is recorded that the patients grouped for re-constructive surgery is analysed by limb wise, fitness wise and willingness wise.

Patients with hand disability (claw fingers) are 937, out of which 248 (25.4%) patients are fit for surgery and the remaining 725 patients (74.6%) are not fit for surgery for various reasons. Patients with foot disability (foot drop) are 329, out of which 117 (35.5%) patients are fit for surgery and the remaining 212 patients (64.5%) are not fit for surgery. Patients with eye disability are 84, of which 16 (19%) are fit for surgery and the remaining patients 68 (81%) are not fit for surgery.

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## Di 419

# EXPERIENCE OF THE DISABILITY PREVENTION PROGRAMME IN VISAKHAPATNAM DISTRICT

Beniyamin, Jayaraj & Srinivasan, Vizianagaram, Andhra Pradesh

The data of the disability patients of Visakhapatnam, coastal district of Andhra Pradesh is collected and analysed taking up various parameters like age, sex, organ-wise and grade-wise involvement. There are 2,864 disability patients in 37,272 total living patients in the district giving 7.68% of disability rate in the district.

Men are 1990 (69.5%) and women are 874 (30.5%). Adults are 2843 (99.3%) and children constitute 21 (0.7%). Grade I are 716 (25%) and Grade II are 2148 (75%). Hand involvement alone is 508 (17.7%), foot alone is 872 (30.5%), eye alone is 25 (0.9%). Two limb involvement (hand, foot and eye is 106 (3.7%).

Individual deformities are worked out and the care services are planned as per the need.

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#### SOCIAL REHABILITATION OF ADDICTED H.D. CASES THROUGH INSTITUTIONAL AA GROUPS IN LEPROSY INSTITUTIONS

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Six years ago, the first institutional AA-group (selfhelping group of Alcoholics Anonymous) was started at Sivananda (Leprosy) Rehabilitation Home, Hyderabad, India.

The decision to support forming such an AA-group among our H.D. cases, suffering as well from Alcoholism, was made after seeing 2-3 rehabilitated H.D. cases dying at relatively young age due to Alcoholism - related diseases.

Forming institutional AA-groups in leprosy institutions was found much easier to achieve than fostering or initiating an AA-group in the society among the general poor sections of the population.

Hence this social aspect of rehabilitation of the poor among H.D. cases is highlighted and support to form such institutional AA-groups is highly recommended for leprosy institutions. It is also found that this type of social work is helpful for POD (prevention of deformities), that it makes addicted H.D. cases earlier fit for reconstructive surgery and it further helps to improve