



Volume 2

Issue 2

September 2011

Tri Annual E-

From the Director's Desk

Dear Friends,

Greetings from LEPRA India – BPHRC!

It is a great pleasure to inform you that this issue is our 2nd 2011 tri Annual E-Newsletter – **Shodhana**...in pursuit of excellence in Public Health. BPHRC is a research wing of LEPRA India which conducts research on issues related to leprosy, tuberculosis, HIV, malaria, lymphatic filariasis and manages the selected field projects in Andhra Pradesh.

LEPRA India – BPHRC hosted “WHO - 5th Meeting on Sentinel Surveillance for Drug Resistance in Leprosy” on 22nd & 23rd August, 2011 at BPHRC. About 45 members from 15 different countries participated in this meeting and shared their experiences. Dr. V.M. Katoch, Secretary, Dept. of Health Research, GoI and Director General, ICMR, Delhi was the Chief Guest for the inaugural. Dr. V.M Katoch inaugurated the BSL-3 laboratory in Microbiology Division and visited the lab. Dr. Vijaylakshmi presented the leprosy DRS work carried out in LEPRA India – BPHRC during the WHO meeting.

A visit by Chargé d'Affaires A. Peter Burleigh, Ambassador, US; Consul General Katherine Dhanani, Dr. Stephan Solat & Dr. Hemachandran from US Embassy and Dr. Satish K, PATH India to witness the implementation of the BSL-3 activity as USAID supported for upgradation of BSL-3 facility at BPHRC.

LEPRA India – BPHRC organized a CME programme on TB Diagnostics on occasion of Twin Cities Microbiologist's meet – 4th edition, 2011 at BPHRC on 1st July, 2011. Prof. Sarman Singh, Head, Division of Clinical Microbiology, AIIMS, New Delhi was invited as guest speaker and he delivered a lecture on “Rapid diagnosis of M.tb by Hain's LPA” and Dr. M.S. Srinivasa Rao, Joint Director & State TB Officer, AP was invited as Guest of honor. About 50 Microbiologists attended the programme.

This edition focuses on the updates from BPHRC lab divisions & Field projects during May to August, 2011.



Wishing a happy reading and appreciate your feedback,

With thanks and best regards

Dr. J. Subbanna

WHO 5th meeting on Sentinel Surveillance for Drug Resistance in Leprosy held at BPHRC



Chargé d'Affaires A. Peter Burleigh, Ambassador, US; Consul General Katherine Dhanani visited BPHRC.



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BPHRC

Dr. KV Desikan visited BPHRC on 13.5.2011 and interacted with the patients. He gone through and verified the slides.



Team from HELP International visited BPHRC. Research scholars explained about the research activities. They also interacted with the patients.



LEPRA India – BPHRC organized a CME programme on TB Diagnostics on occasion of Twin Cities Microbiologist’s meet – 4th edition, 2011 at BPHRC on 1st July, 2011. Prof. Sarman Singh, Head, Division of Clinical Microbiology, AIIMS, New Delhi was invited as guest speaker and he delivered a lecture on “Rapid diagnosis of M.tb by Hain’s LPA” and Dr. M.S. Srinivasa Rao, Joint Director & State TB Officer, AP was invited as Guest of honor. About 50 Microbiologists attended the programme.



Dr. Ralph Schumann, Inst. Of Microbiology, Charity Medical School, Berlin, Germany visited BPHRC on 14.6.2011 and interacted with the research scholars. It's a collaborative visit.



Chargé d'Affaires A. Peter Burleigh, Ambassador, US; Consul General Katherine Dhanani, Dr. Stephan Solat & Dr. Hemachandran from USAID, India and Dr. Satish K, PATH India and Dr. Mayank visited BPHRC on 13.7.2011. Ms. Meena Gupta, Chairman, LEPR India also visited BPHRC and interacted with the guests and she explained about LEPR India activities. Dr. PV Ranganadha Rao, Chief Executive presented to them on LEPR activities. This visit is to witness the implementation of the BSL-3 activity as USAID supported for upgradation of BSL-3 facility at BPHRC. And the Ambassador commented that "Thanks for a fascinating Introduction to your very impressive facility – and the lively dedicated staff".



Dr. Rukmini Rao, Board Member, LEPR India visited BPHRC on 25.5.2011. She interacted with patients and informed about the clinical activities.



Dr. Subbanna Participated as a speaker in the panel discussion of civil society during the WHO TB Drug Manufacturers Meeting held on 29-30th August, 2011 at New Delhi representing LEPR India and Partnership for TB Care in India.



Performance of Clinical & Epidemiology Division: Field Activities: Observation of Candle Light Memorial day by BPHRC on 15.5.2011 and awareness programme at Vimta Laboratories:



Strategy Consultative Meeting held at BPHRC on 25.7.2011. Ms. Sarah Nancollas, Chief Executive, LEPR UK, Ms. Meena Gupta, Chairman, LEPR India, Chief Executive, LEPR India, Management Committee members, LEPR India projects Directors and Sr. staff participated in the meeting.



Awareness programme for Asha workers:



Performance of Immunology/Molecularbiology Division:

A project sanctioned by CSIR is been extended for one more year 2012 and Dr. Anuradha is doing Post Doctoral fellowship under this project.

Ongoing Projects:

1. Determine the molecular mechanisms involved in the expansion of regulatory T cells in human Mycobacterium tuberculosis - infection
2. A Longitudinal Cohort Study to Identify Immunological Biomarker for Leprosy
3. *Mycobacterium tuberculosis* Genotypes And Host Susceptibility To Tuberculosis In Human Immunodeficiency Virus Infected And Non Infected Persons - A Community Based Study
4. Effects of multi drug therapy on cellular immunity in patients with leprosy
5. Centre of Excellence (CoE) project: Characterization of Host pathogen factors influencing the targeting of Mycobacterium tuberculosis to various tissues in man
6. "Gene expression profiling in Multi-case Leprosy families: The susceptibility genes expression through general proteomics approach"

Publications:

1. Rupendra J, Lavanya S, Ravindra K, **Vidyagouri S**, Karuna D, Meher VC, Renuka R, Sujai S, Peter GN, Wim HB, **Diana NJL** .Analysis of Antibody and Cytokine Markers for Leprosy Nerve Damage and Reactions in the INFIR Cohort in

India. PLOS Neg Trop Dis 2011; (5). Issue 3 | e977.

2. **Sharada RS**, Surekha RH, Sumanlatha G, **Subbanna J**, **Vijaya LV**. Association of TAP 1 and 2 Gene polymorphisms with HIV-TB coinfection. Human Immunology 2011 (In Press). doi:10.1016/j.humimm.2011.07.304
3. Periyasamy S, Dhiman R, Barnes PF, Paidipally P, **Bandaru A**, **Valluri V** and Vankayalapati R. Programmed Death 1 and Cytokine Inducible SH2-Containing Protein Dependent Expansion of Regulatory T Cells Upon Stimulation With Mycobacterium tuberculosis. J Infect Dis (Advance Access published March 7, 2011). doi:10.1093/infdis/jir011.
4. Dhiman R, **Bandaru A**, Barnes PF, Paidipally P, **Valluri V** and Vankayalapati R. c-Maf-dependent growth of Mycobacterium tuberculosis in a CD14hi subpopulation of monocyte-derived macrophages. J Immunol 2010. doi:10.4049/jimmunol.1003146.

Performance of Microbiology Division:

Ongoing Projects:

1. Genotyping of Mycobacterium Tuberculosis of Multi drug resistant (MDR) tuberculosis suspects from Revised National Tuberculosis Control Programme in coastal districts of Andhra Pradesh, South India
2. Prevalence of second line anti TB drug resistance from four districts of Andhra Pradesh- a community based study.
3. CoE Project: Investigation of differential expression of fadE20, fadE26 and fadE28 by clinical strains of M. tb occupying different host tissue and its correlation with tissue tropism. (Funded by Dept of Biotechnology)
4. ICMR Project: Occurrence of relapse, non-responsiveness to treatment in leprosy and screening of M. leprae isolates for drug resistance using molecular and mouse foot pad techniques.

ARTH

We organized the DPMR camps at Dilwarpur Mandal. During the camp around 22-25 Leprosy patients participated with their family members. All the patients were examined and briefed about the self care practices and prevention of complications.



Physiotherapist is removing the callosity from plantar ulcer at DPMR camp.



The project organized the RNTCP training programmes to IKP groups and Peripheral staff at Basar & Mudhole.



Unneed

We Conducted PoD Camp and taken measurements to prepare Gr. II footwear to the needy clients at Shanthinagar colony.



Dr. Rukmini Rao, Board Member of LEPRO India and Dr. Subbanna Director, BPHRC visited DLRC and Cheyutha, projects on 25th May 2011.



Sister Deepthi and Jolly from LEPRO India Indore visited DLRC Dhoolpet on 3rd June 2011. Mr. Sathiraju, Project Coordinator accompanied them.



We conducted one day training program for ASHA Volunteers on Leprosy- stigma / discrimination at DLRC.



Chetana project organized STEP-Up skills empowerment workshop on 24th & 25th July 2011 at Spearmint Hotel, Hyderabad organized by Sasakawa India Leprosy Foundation with Cooperation of LEPRO India. .



LEPRO India organized Footwear Mela for Leprosy clients at Umeed project in coordination with Disha Charitable Trust. The trust provided the footwear for leprosy clients. About 90 clients including children attended for the camp.



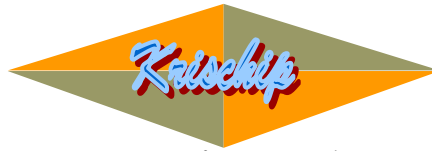
A training programme was organized on CBO formation at LEPRO India Head quarters on 6th August 2011. Dr Subbanna Director LEPRO India BPHRC inaugurated this training program. Staff from Cheyutha, Sreyassu and Samstha attended the training program.



65th anniversary of Independence Day was celebrated at DLRC Dhoolpet. Staff from UMEED, Cheyutha and Chetana participated in this celebration.



Mrs. Madhavi Program Officer from LEPROA UK visited to Nallakunta Leprosy Referral Centre (NLRC) and Cheyutha Gaddiannaram on 30th August 2011. Mr. Sathi Raju accompanied her and also Mrs. Madhavi, Ms Sevy from HELP International and Dr. Ranaganadha Rao our CEO visited to Shanthinagar colony. A group meeting was organized with the colony inmates.



Prevention of secondary Disability through self care camp is an approach which helps to prevent the disability caused by filariasis. 9 self care camps are organized for morbidity management of individuals who are affected by elephantiasis (lymphatic filarial).



LEPROA SASAKAWA - CHETANA project was initiated in May 2011 at Vijayawada. Chetana means initiatives to make things happen was conceptualized involving persons affected by leprosy living in the communities served by LEPROA referral centers.

A survey was done in five leprosy colonies to identify youths in need of employment. As a start for this survey, one, one-day training programme was organized in LEPROA India Head Quarter involving UMEED, Chetana staff and the survey team.



The Health Screening camp was conducted in collaboration with Temporary Hospital Ward (Leprosy), Kesaraplli. The project involved various stakeholders working in the health services from different hospital settings. The camp mainly focused on Diabetes, Ophthalmology , Hypertension & General Health Problems.



Project observed the Breast feeding week with the support of the PHC staff in 4 villages and mainly focused on Feeding colostum; Psychological bonding; growth and mental development of the child.



Arogya Disha a Community health programme initiated by LEPRA India organized **“SAMOOHIKA SEEMANTHAM”**. It aims to educate the Pregnant Women and increase their knowledge levels by raising awareness on personal hygiene, regular antenatal checkup for health, Institutional delivery and encourages them to test for HIV to save their newborn babies from HIV.



We also celebrated Rakshabandan in the Grace Leprosy colony with the general community to avoid stigma and discrimination. On this event colony people tied Rakhi's to NSS students of veterinary college, Gannavaram and LEPRA India staff.



Sreyassu project is providing Educational Support in the form of distribution books, bags and uniforms to 75 infected and affected children. Shri. Sri Ram Raja Gopal, MLA, Jaggaiahpet attended as chief guest of the programme and SK Madharsaheb, one of the Sreyassu site donor also invited as special guest.



Ms. Sarah Nancollas, LEPRA UK, CEO along with Dr. Ranganadh Rao, CEO, LEPRA India and Mr. Chandra Sekara, Director, LEPRA India-ROH visited to KRISHNA district interventions.

Interaction with Challapalli DIC beneficiaries



Photographs

WHO meeting on Sentinel Surveillance for Drug Resistance in Leprosy



Photographs

Inauguration of Bio Safety Level (BSL-3) Facility



CASE STUDIES

MANAGEMENT OF REVERSIBLE NERVE FUNCTION IMPAIRMENT – KEY TO PREVENTING DISABILITY

A 27 year old male patient, Syed Iqbal presented with progressive weakness of hands and feet of 6-7 months duration with bilateral foot drop and clawing of toes of 1 week duration. Examination revealed multiple anesthetic hypo pigmented patches all over the body in near bilaterally symmetrical distribution with thickened ulnar, radial, lateral popliteal and posterior tibial nerves on both sides. Power of intrinsic muscles of feet was found to be grade 0 while that in tibialis anterior was grade 2 with minimal atrophy. Slit skin smear revealed BI 1.25 and MI 0. A diagnosis of Hansen's disease BL with bilateral foot drop and claw toes was made. Patient was initiated on MBMDT with standard course of steroids in view of reversible nerve function impairment and provided with splints.

Within 4 months remarkable improvement in NFI was noted, with power in intrinsic muscles of foot increasing to grade 6. Recovery in motor condition has been a great morale booster for the patient and has reinforced his confidence in treatment. Currently patient is on MBMDT and is under regular follow up.

This case highlights the importance of timely identification and initiation of steroid in cases with reversible NFI to prevent disability and deformity.

AWARENESS IS EMPOWERING

A 18 years old female patient, Swetha presented to BPHRC with multiple anaesthetic patches on the body of 1 year duration. Examination revealed erythematous, oedematous anaesthetic patch on the face which was associated with swelling of the upper lip. Left upper limb had three hypo pigmented anaesthetic patches with tenderness of left ulnar nerve. There was a single patch on the right lower limb with tenderness of the both posterior tibial nerves. A diagnosis of Borderline tuberculoid Leprosy in Type 1 reaction was made. Slit skin smear was negative. Patient was started on MBMDT along with Prednisolone 40 mg. Within 2 weeks there was 50 % decrease in the erythema and swelling of the patch with improvement of neuritis. Prednisolone 40 mg was continued for 2 weeks later tapered by 10 mg every 2 weeks. Presently patient is on 4th dose MBMDT Type 1 with Prednisolone 5mg with complete subsidence of type 1 reaction.

Though this patient had noticed the patches since 1 year she did not seek any medical advice. Patient's brother in law works with HP Gas Company where awareness programme was conducted by Clinical and Epidemiology division of BPHRC. On being motivated by his colleagues he brought the patient to the outpatient facility at BPHRC. This case has been reported to highlight the need for creating awareness about leprosy to enhance self reporting and also importance of identifying and treating reactions at the earliest to prevent irreversible nerve function impairments.

News Clippings



కుష్టు వ్యాధిగ్రస్తులకు 'ఫుట్వేర్' మేళా

భూదేవత: లెప్రసీ రీసెర్చ్ సెంటర్ దూర ఫేట ఆధ్వర్యంలో కనీవారం ఫుట్వేర్ మేళా నిర్వహించారు కుష్టు వ్యాధిగ్రస్తులు, వారి పిల్లల కోసం నిర్వహించిన ఫుట్వేర్ మేళాలో వందల సంఖ్యలో లోగులు పాల్గొన్నారు. ఈ సందర్భంగా దిషా చారిటబుల్ ట్రస్టు ఆధ్వర్యంలో వంద మంది వ్యాధిగ్రస్తులకు ఉచితంగా ఎంసీఆర్ ఫుట్వేర్ లను అందజేశారు. ఈ సందర్భంగా లెప్రా ఇండియా సంస్థ ఆధ్వర్యంలో సుమారు ముప్పై మంది పిల్లలకు ఉచితంగా పాత్ర, నోట్ ఫుస్టకాలను పంపిణీ చేశారు. లెప్రా ఇండియా టీమ్ ఎగ్జిక్యూటివ్ డాక్టర్ పీవీ రఘునాథరావు, ఓండ్రెహాక్, సుందరప్రహాక్, రాజన్, సత్తిరాజు పాల్గొన్నారు.

Forthcoming Special Days/Events

International Literacy Day - 8th September
 Child Health Day—6th October
 National Lung Health Day— 22nd October
 Research Advisory Committee meeting @ BPHRC—28th October
 World AIDS Day— 1st December
 Institutional Biosafety Committee Meeting—December

Editorial Board:

Ms. Uma Rani; Mr. Rathnaker Reddy; Mr. Kameswara Rao; Dr. Laxmi Sudha



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