

ABSTRACTS of FREE PAPERS (FP) BY DELEGATES

FP-1

Status of Leprosy at a tertiary care hospital in Southern India from 2010 to 2014

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Though the Government of India declared that the leprosy is eliminated from the country on 31 Dec 2005, the new case detection rate, has not shown significant decline in spite of all efforts.

Methodology

This retrospective study was under taken to determine the epidemiological and clinical trends of leprosy in a post-elimination era in a tertiary care hospital, Southern India. New patients registered from January 2010 to December 2014 with the leprosy clinic were enrolled.

Results

Of 81 newly detected cases, male to female ratio was 4:1, with highest prevalence among age group 20-40 years (65%) and 10% were below 20 years of age. 70.98% patients were in the borderline spectrum. Pure neuritic and indeterminate leprosy accounted for 8% and 3% respectively. 9.2% patients had definite history of contact in the family or neighborhood and 17% patients were immigrants presenting in either BL or LL spectrum towards the later years of study.

Conclusion

Though eliminated leprosy is still in vogue. Further there is considerable shift in the spectrum the patients are presenting on the first visit. Development of strategies to deal with immigrants

with leprosy may help in reducing case detection rate.

FP-2

Incidence of leprosy: Definition, misconceptions, importance and epidemiology

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The periodic epidemiological evaluation of any disease is an important public health activity and It enables us to understand the trend of the disease under natural conditions or following interventions. Though there has been a marked decline in the total case load of leprosy in India, an understanding of the current magnitude is important for both the service providers and the community.

Although prevalence and new case detection rates in leprosy are the routine monitoring tools and indicate partially about the transmission of the disease in a community, the incidence rate speaks entirely about transmission patterns in cohorts of various groups and subgroups like contacts.

Leprosy control strategies had been based on total population surveys aiming at a high proportion of community coverage for detection and treatment. However, for some practical reasons this has never happened uniformly in India. As a result, community coverage for case detection had varied considerably at all levels resulting in significant hidden or missed cases. This has been responsible for the continued exposure of infection to the healthy population. It

is thus important to have incidence estimates to plan better elimination strategies. Such studies from various geographical areas and population subgroups are required to understand the total transmission dynamics of leprosy.

However, it is observed that some programme managers do not have clear concepts of incidence of leprosy in communities and understand ANC is an incidence of leprosy. This is a wrong concept and everyone should correct it.

Present paper would be presented to demonstrate all aspects of incidence in leprosy, however it is different from ANC or NC, its epidemiological relevance and so on, using some data set from our surveys.

FP-3

Current scenario of leprosy transmission in south India: Hospital-based 5yr retrospective study

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Introduction

Diagnosis and treatment of leprosy with multi-drug therapy (MDT) remain key elements in strategy to eliminate the disease. Even after declaration of leprosy elimination in December 2005, leprosy continues to be a major public health problem in our country. Our objective was to study the current trend in occurrence of new cases of leprosy after shortening the duration of MDT for multibacillary leprosy cases to 12 months.

Materials and Methods

A retrospective record based study was carried out on patients diagnosed and registered in leprosy clinic of SN medical college, Bagalkot, a tertiary level teaching hospital in south India from January 2010 to December 2014. Data collected

were analysed and tabulated in Microsoft excel sheet. Results are presented in proportion and percentages.

Results

A total of 170 patients were registered over 5 years. Male: female ratio of 3.6:1 with highest incidence in age group 21-30 years, out of which 65.3% were in multibacillary (MB) and 34.7% in paucibacillary (PB).

Conclusion

Our study offers insight into current status of disease indicating, significant transmission of leprosy is going on in community. It highlights need for interventions and continuation of MDT for more than 12 months.

FP-4

Clinical, bacteriological and histopathological characteristics of leprosy in children in tertiary care centre

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Background

Leprosy is a major public-health problem in developing countries. Studies pertaining to proportion and characteristics of pediatric cases are few in number.

Aim

The aim of the study is to know the clinical, bacteriological and histopathological characteristics of childhood leprosy.

Materials and Method

A prospective observational study was conducted from January 2013 to December 2014 (2 years) at a tertiary care centre. Consecutive cases clinically diagnosed as Hansen's disease in pediatric age group, attending DVL OPD were taken up.

Results

Study yielded 23% (26) pediatric cases of leprosy out of 113 attending DVL OPD. The age of childhood leprosy cases ranged from 10 to 18 years with mean of 14 years. 76% (20) cases were males and 24% (6) cases were females. 84% (22) cases presented with hypopigmented, anaesthetic patches, 11% (3) cases with deformities and 3% (1) with tingling and numbness of both feet. 80% (21) cases were MB and 20% (5) were PB. 76% (20) of children had multiple skin lesions and 24% (6) had SSL. Of the 76% (20) multiple skin lesions cases examined histopathologically, 75% (15) showed features BT, 20% (four) showed BL and 5% (one) was LL. Six cases had deformities. Out of 80% (21) multibacillary cases, 33% (7) cases were smear positive. 19% (5) of patients had history of contact within the household. 8% (2) cases developed LR. The mean duration of symptoms was around six months. All the patients were treated with MDT as per WHO guideline.

Conclusion

Leprosy continues to be a communicable disease of concern in the post elimination era. The present study though small in size indicate the severity of undetected childhood leprosy in society and its ill effects. So the corner stone for control, prevention of deformities and disability of leprosy is by high suspicion to make an early diagnosis and treatment.

FP-5

Experiences with Thalidomide for Erythema Nodosum Leprosum - a retrospective study

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Background

ENL or Type 2 reactions is a complication of

borderline and lepromatous leprosy. Multiple organs are affected and some of the damages can be irreversible and life threatening. Often large prolonged doses of steroids are required to suppress the inflammatory process. This creates an immunosuppressive and sometimes life threatening state in the patient. Hence Thalidomide has been advocated as a good alternative to steroid dependence and side effects.

This study was conducted to analyse the experiences of using Thalidomide in a tertiary leprosy care hospital with the following objectives.

1. To state the indications of using thalidomide in ENL patients.
2. To calculate the doses of thalidomide needed before steroids can be effectively tapered.
3. To analyse the adverse events and correlate them with thalidomide or steroids.
4. To discuss the deaths on Thalidomide.

Methodology

All Patients admitted for Thalidomide from 2009- 2014 were included in the study. Inpatient details from charts and electronic recording system were entered in an excel sheet and analyzed.

Result and conclusion will be discussed in the conference.

FP-6

Does a course of MDT alter the clinical outcome of ENL?

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Background

Erythema nodosum leprosum usually occurs after starting MDT. ENL can behave differently in the pre and post MDT period. To study and compare

different clinical patterns, systemic co-morbidities, severity of neuritis, bacillary index, steroid requirement in patients of ENL in the pre and post MDT period.

Methodology

Patients who had completed MDT were included in group A and those in whom MDT had not been started were included in group B. A Detailed history regarding the status of MDT was taken. Proper clinical examinations and laboratory investigations were done in all patients. A slit skin smear for AFB was done in all cases.

Results

20 patients were enrolled in each group. Mean ages were 32.4 and 35.6 years in group A and B respectively. Males outnumbered females in both groups. A Nodular pattern of ENL was predominantly found in both groups 100% and 60% each, whereas bullous and necrotic ENL were predominantly found in group B patients 25% and 15% each. Systemic abnormalities were found, 15% and 45% in group A and B respectively. Bacillary index was > 4+ in patients of group B and 1+ to 2+ in group A. Grade 3 neuritis was found in 55% cases in group B. Prednisolone requirement was higher in group B compared to group A.

Conclusion

Severity and systemic complications are higher in patients presenting with ENL in the pre MDT period.

FP-7

Treatment of Reactions in leprosy - a challenge

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Morbidity in leprosy is almost always due to

reactions. Though several new drugs have been tried and found somewhat useful, corticosteroids and thalidomide continues to be the mainstay in the management of leprosy reactions.

Case 1: A 25yr old male patient with lepromatous leprosy developed ENL after completion of MB MDT.

Case 2: A 37yr old male patient with BL Leprosy had ENL.

Case 3: A 47yr old male patient with Histoid Hansen's developed ENL after treatment with MBMDT.

Case 4: A 39yr old male patient with BT downgrading to BL completed MB MDT.

All these cases without systemic complications were started with Thalidomide as the initial drug showed a reactions free period for more than 6 months.

Conclusion

The above case series help us know that Thalidomide might be the initial drug of choice in the management of mild to severe leprosy reactions.

FP-8

Histoid Hansen with type 2 reaction: Case reports

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Background

Histoid Hansen's is a rare variant of lepromatous leprosy. It was reported due to Dapsone monotherapy/Dapsone resistance and in - patients with MDT. It has become common in previously untreated and undiagnosed patients. Characterized clinically by firm, discrete, erythematous round to oval, shiny glistening succulent cutaneous and sub cutaneous nodular or plaque like lesion arising from apparent normal skin.

Case reports

- Case1: A 33-year-old male diagnosed as BL type, was started on DDS monotherapy by private practitioner, pt defaulted after 1 month of duration. 2 years later he developed typical histoid lesions confirmed by biopsy.
- Case 2: A 40-year-old male pt diagnosed as BT type of Hansen, defaulted after 1 month of MB-MDT. After 1 yr patient presented with features of Histoid Hansen proved by biopsy.
- Case3: A 45-year-old male who had no history suggestive of Hansen in past. Presented with features of Histoid Hansen proved by biopsy.

Conclusion

Histoid Hansen remains an interesting rare enigmatic form of lepromatous leprosy reported mainly from India. It constitutes 1.2 to 3.6% of all leprosy cases. In our cases, Histoid Hansen was seen developing after default from dapsone monotherapy and MDT and also Denova cases with type 2 lepra reaction. Despite high bacillary load in Histoid Hansen it is said that type 2 reaction is rare.

FP-9**A case of lepromatous leprosy in type 2 reaction associated with multiple warts**

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Background

Leprosy is in the era of post elimination phase but still we come across cases of leprosy reporting directly in an advanced stage of leprosy or in reactions. A good history with keen clinical observation is required to diagnose the disease.

Case report

A 42-year-old male patient presented with multiple, asymptomatic, raised lesions all over the body more on the acral areas since 2 years and also multiple painful lesions with fever since 2 months. Patient took symptomatic treatment. Cutaneous examination revealed multiple verrucous papules, tender nodules, few hyper pigmented macules and plaques distributed all over the body with shiny skin and ear lobe infiltration. Multiple nerves were thickened and tender. Biopsy from asymptomatic and painful lesions revealed verruca vulgaris and lepromatous leprosy respectively. Bacillary Index was 5+. MB-MDT along with treatment for the reaction was instituted and the pulverized wart was auto inoculated on the left forearm.

Conclusion

Presence of multiple warts may mask the underlying diagnosis unless there is a strong suspicion of leprosy.

FP-10**A case report of subpolar lepromatous leprosy presenting with Type 1 lepra reaction in the post elimination era**

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A forty year old male who is a Diabetic presented to a physician with Cellulitis. Two days after starting antibiotics he developed erythematous rash and the dermatologist diagnosed it as ug reaction and prescribed antihistamines along with topical steroid and the antibiotic was changed.

But the condition worsened with occurrence of fever and joint pain. When the patient came to

our outpatient department, he was febrile and had diffuse erythema and oedema over the face. Skin lesions were clinically suggestive of borderline Lepromatous Leprosy in type 1 lepra reaction.

Bilateral ear lobe infiltration and neuritis were present. Slit skin smear showed globi and morphological Index was 50. Acid Fast Bacilli were present in normal skin also. Skin biopsy was consistent with Borderline Lepromatous Leprosy in reaction. A final diagnosis of Subpolar Lepromatous Leprosy with type 1 lepra reaction was deduced.

This case is being presented because type 1 Lepra reaction is relatively rare in Subpolar Lepromatous Leprosy. Moreover, the patient developed type 1 Lepra reaction even before anti Hansen's therapy was initiated.

The patient was unaware of the glove and stocking type of anesthesia which he started recognizing only after the edema subsided. Even a dermatologist missed the diagnosis of a multibacillary type of Leprosy thereby delaying the diagnosis and treatment as well as promoting further spread of Leprosy in the community.

FP-11

A case of childhood leprosy- mid borderline leprosy (BB), with type 1 reaction

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Background

Leprosy among children is quite rare mostly seen between the age group 5-14 years, Borderline tuberculoid form is the most common form of leprosy in children, reactions and disabilities are rare.

Case report

A 13 year old boy presented with multiple, red coloured, elevated lesions on face, buttocks and limbs, with loss of sensation since 4 years. On examination multiple well defined erythematous, edematous, anaesthetic, annular, few punched out and few bizarre shaped plaques with scaling were present over the forehead, right side of the face, left mandible, upper limbs, thighs, natal cleft and lower legs. Few plaques showed ulcerations on the borders. Hypoesthesia was present on both heels and lower legs. Multiple cutaneous nerves were thickened. Slit skin smear was negative for AFB, but histopathology showed mid-borderline leprosy changes. MB-MDT was started along with prednisolone (tapering dose).

Conclusion

Reactions are much less compared to adults, our patient presented with BB Hansen's in type 1 reaction, responded well with treatment.

FP-12

Early diagnosis of nerve damage in Leprosy - An Electrophysiological study of Ulnar and Median nerve in patients with and without clinical neural deficits

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Background:

Deformities are synonymous to leprosy. This is because of the peripheral nerve involvement due to Mycobacterium leprae. There is no established laboratory / clinical tool which can predict the sub clinical diagnosis of the nerve damage in leprosy.

We have tried the basic electrophysiological parameters (sensory and motor nerve conduction

velocity) in the diagnosed cases of leprosy that do not have any neurological symptoms at the time of examination. So far, we have a series of 567 cases under this study.

Conclusion

We observed that 40% cases have changes in basic parameters. That is, the sensory motor nerve conduction and amplitude is reduced, while the latency is increased. These cases were further followed up for 6 - 9 months. 15% of the above 40% cases reported with some neurological symptoms. All these cases were intervened with medical/ surgical treatment and the occurrence of the deformity was reported to be arrested.

FP-13

A study on cost effectiveness of hand surgery in Leprosy by introduction of a simple distracter carried out at Victoria Hospital Jabalpur, MP

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Background

Flexion contracture at MP joint, figures as the commonest deformity of hand in Leprosy. The mobile and supple joints can be managed by tendon surgeries, but rigid joints need meticulous exercise for its surgical correction.

The non operable and operative modalities have many short comings like huge expenditure and long stay at hospitals, where beds are very limited especially for leprosy patients.

Simple distracters are versatile, light weight and minimally invasive methods used for rigid contractures of the hand. External fixators consist of K-wire, distracters and connecting rods as a dynamic system that allows the lengthening of the contracted tissues via slow distraction causing minimal surgical insult of the soft tissue.

24 patients of age groups ranging from 32 to 72 years were included in the study. Out of these 19 were male and 5 female. A total of 44 fingers were managed using this method.

Conclusion

Follow up was done for 8 months to 2 years. 80% of beneficiaries achieved full extension at MP joint, 9% with fairly good results which was much better than what could have been achieved with invasive surgery.

FP-14

Deformity in leprosy - a challenge to the quality services

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Background

For prevention of deformity, efforts need to be taken at all levels to focus more on preventing it at its outset.

Increase in the proportion of MB is considered to be an indication of elimination, probably because cases are coming voluntarily or hidden cases are being detected, but the situation is just the reverse. MB proportion has inclined because PB cases are missed or no efforts are made to dig them out. The statement can be ascertained with fact that high proportion of PB cases are being detected in active search.

The reporting of disability grade -1 has increased in these years indicating either an increase in the technical skill of health providers or may be due to the addition of columns to the monthly reporting format. It is hard to analyse how many were prevented from deformity while on treatment.

There is still a need to have uniformity in treatment of reactions even in the teaching

institutes. However LEPRO India has evolved ways to involve Medical colleges in training programs and initiating CMEs which would encourage interdepartmental referrals.

Conclusion

The referral centre at Victoria has alone reported 2000 deformity cases dealt since 2010. Majority of them were of the hand. Out of the 600 operated, most of them had more than one deformity like - clawing of fingers, fixed contracture and ape thumb, foot op etc.

FP-15

Study of Mass Reconstructive Surgery camp for Leprosy patients

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Every year the Government of Gujarat organizes a Leprosy Reconstructive Surgery camp for Leprosy patients at one Medical College. In these camps patients are brought from every district of Gujarat. For Surgery, senior and experienced faculties from other states are also called for these camps and their expertise is utilized for the benefit of patients. At these camps, training is given to residents and other doctors attending from outside, thereby increasing the reach of RCS throughout the country.

Here I am presenting our experiences of these camps in which we have analyzed patients of the last three years on the basis of age group, sex, division, type of deformity, type of surgery, etc. The advantages and disadvantages of holding such camps is to determine the roadmap ahead for nearly 3000 new cases being detected with deformity in India.

Key results

In the last three years a total of 235 patients were

operated in the camp. Distribution of body parts involved (were reconstructed surgery was done) is as follows - upper limb: 134 patients, ulcer in the foot: 70 patients, I involved 18 patients, foot op: 13 patients.

FP-16

Late Reporting of Leprosy patients with Grade-II disability for treatment and Reconstructive Surgery- An Assessment of the Responsible factors

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Introduction

Prevention of deformities and disabilities in the Leprosy Eradication Programme is important mainly because of its potential to cause permanent and progressive physical deformities, with social and economical impacts. In India Grade-II disability among new cases is around 3%. For this reason effort should be made to minimize delay between appearance of the first symptom of Leprosy and the start of treatment and recognition of early nerve damage. The present study will identify the factors which influence the patient to report with grade-II disability late i.e. various reasons, medical, social, economical and psychological.

Objectives

The determine factors associated with delayed presentation among leprosy patients (i.e. adults & children) with disability (grade-1 &/or grade-II).

Methods

The present study reports the retrospective analysis of 217 leprosy patients with irreversible palsy who underwent reconstructive surgery at

Sivananda Rehabilitation Home, Kukatpally, Hyderabad, Telangana State, between 2010 to 2013 were analysed and results will be presented.

FP-17

Clinicopathological features of Histoid leprosy: A retrospective study

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Background

Histoid leprosy is an uncommon variant of leprosy with characteristic clinical, histopathological and bacteriologic findings. To study the clinicopathological profile of patients with histoid leprosy in a tertiary care centre in South India.

Methodology

A retrospective study between September 2008 and December 2014.

Results

There were four cases of histoid leprosy and the incidence was 0.57% (4 out of 697 leprosy cases). The median age of presentation was 66.6 yrs and majority (75%) were males. The duration of symptoms prior to diagnosis ranged from 6 months to 3 years. The skin lesions were dome shaped papules (75%) and nodules (25%). Erythema nodosum leprosum (ENL) was seen in 50% of patients. Average Bacteriological Index ranged from 3.25 to 5.25. De novo histoid lesions (which developed without prior treatment and without other patches of leprosy) were seen in 50% of patients. The diagnosis of Histoid leprosy was confirmed by histopathology showing circumscribed spindle-shaped cells with foamy macrophages containing numerous acid fast bacilli.

Conclusion

Incidence of histoid leprosy in our study was 0.57%. De novo histoid lesions were seen in 50% of cases. Histopathology of nodular lesions in leprosy is important in differentiating histoid leprosy from nodular lepromatous leprosy.

FP-18

De-novo histoid leprosy

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Histoid leprosy is characterized by Cutaneous/subcutaneous nodules and/or plaques present over apparently normal skin, with unique histopathological and bacteriological features. Reactional episodes are thought to be rare in this entity. We report 4 cases of de-novo Histoid leprosy, 2 of which had erythema nodosum leprosum (ENL), one at the time of presentation and other after 2 months of initiation of therapy.

Case Report

- Case 1: A 60 year old male presented with nodules over trunk, extensor aspects of both arms, ears, elbows and lower limbs of 4 months duration. Some of the lesions showed a central umbilication. Slit skin smear and Histopathological examination (HPE) were consistent with Histoid leprosy.
- Case 2: A 45 year old male presented with multiple, discrete, soft to firm papules and nodules mainly over trunk followed by upper limbs, buttocks, lower limbs and face of 4 months duration. Slit skin smear and Histopathological examination (HPE) confirmed Histoid leprosy.
- Case 3: A 35 year old male presented with

multiple papulonodular lesions present over left forearm, back, upper chest. HPE confirmed histoid leprosy. After initiating MDT, he developed ENL.

Case 4: A 45 year old male presented with multiple discrete skin colored shiny papules and nodules present over trunk, both upper limbs, face and ears. Multiple erythematous tender elevated skin lesions were noted on trunk and extremities. Biopsy confirmed Histoid leprosy with ENL.

Conclusions

De novo Histoid leprosy, being uncommon, a potential reservoir of the infection, needs a high index of suspicion for early diagnosis and treatment. ENL, a rarity in Histoid leprosy, can also be the initial presentation and can pose a diagnostic difficulty.

FP-19

Histoid Leprosy - A Case Report

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Introduction

Histoid Leprosy is an expression of multibacillary leprosy characterized by the occurrence of nodules and/or plaques in the skin or the subcutaneous tissues. Some authors consider it as a distinct clinicopathological entity, yet others consider it as a variant of Lepromatous Leprosy.

Case Report

We are reporting a case of a 55 year old female patient who presented with multiple asymptomatic elevated lesions over the body and decreased sensations over both feet since 3 months. Multiple, skin colored, shiny papules, nodules and plaques were present over the

knees, elbows, trunk and face on apparently normal skin. Two well-defined xerotic patches with hypoesthesia were present on extensor aspect of the forearm and lower one third of both legs. Infiltration of facial skin and ears were present. All cutaneous nerves were enlarged Z.N. smears shows AFB Index 6+. MB-MDT was started and completed 6 months of treatment. Patient was on regular follow up.

Discussion

Histoid leprosy has a unique status in the leprosy spectrum with a characteristic clinical presentation and histopathology. Our case has all the classical features.

FP-20

Hansen's disease with trachyonychia: a rare association or a mere coincidence

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Leprosy, a disease known since antiquity caused by *Mycobacterium leprae*, primarily effects skin & nerves but nails are also involved in many patients. The factors that trigger nail changes are numerous and include repeated trauma, vascular impairment, neuropathy, lepra reactions and ugs. Among them, pterygium unguis, although not common is highly characteristic of leprosy.

A 35yr old male presented with pterygium unguis in few nails and dystrophic nail changes in all 20 nails suggesting trachyonychia. There was a single hypopigmented plaque with satellite lesions and loss of sensation over plaque. Right ulnar nerve thickening was present. Skin biopsy of the lesion showed tuberculoid leprosy.

Conclusion

Though leprosy has been discussed under various modalities, its effects on nail have not been

adessed. We wish to emphasize that nail changes in leprosy are highly variable, and originate as a result of various processes, and reflect the significant morbidity of *M.leprae*. These changes not only aid in diagnosis but also help in evaluation of repercussions of leprosy on the patient's physical, psychological and social well-being.

FP-21**Are we forgetting leprosy though India is endemic? - A case report**

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Background

Inability to close the eye lids (resulted from paralysis of Orbicularis Oculi muscle) while sleeping or awake is known as lagophthalmos. Persons with facial skin lesions in leprosy are prone to develop such condition. There is clinical evidence of cranial nerve involvement in 18% of patients with leprosy.

The commonest cranial nerve affected in leprosy is the facial nerve which may lead to lagophthalmos. It is considered as one of the common causes of blindness in leprosy and is seen in many clinical conditions including leprosy. Global leprosy program aims to reduce the burden of Gr. 2 disability rate in leprosy by 35% by 2015.

Early case detection and treatment with multi drug therapy are the most important events to prevent disability due to leprosy. Here, we would like to present a case report of a 23 year old woman with facial skin lesions and lagophthalmos wherein diagnosis of leprosy was missed by 3 physicians.

Conclusion

This paper recommends suspicion of leprosy

when the cases present with neurological deficits of peripheral nerves or cranial nerves particularly in an endemic country like India.

FP-22**Hansen's with genital lesions - report of two cases**

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Background

Leprosy affects mainly those areas of the skin, which have a relatively lower temperature. Yet, zones such as scalp, palms, soles, genitalia, groins, axillae, eyelids & perineum have been described to be immune to the development of leprosy due to relatively high local temperature. Till date, Only 12 & 15 cases with genital involvement are reported in foreign & Indian literature respectively

Case reports

Case 1: A 19yr old male patient presented with multiple papules and plaques on face, ears, hands, feet and genitalia associated with multiple peripheral nerve enlargement.

Case 2: A 41yr old male patient presented with multiple Infiltrated papules and plaques all over the body associated with gynecoethelia & enlargement of peripheral nerves.

Both the cases showed acid fast bacilli on slit skin smear & Histopathological examination by Fite-Faraco stain, confirming diagnosis of Lepromatous leprosy.

Conclusion

The above two cases delineates the importance of

examination of genitalia, palms and soles in leprosy. These two cases reported to our department with in a period of 15 days.

FP-23

Facets of Hansen's disease

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With gradual decrease in incidence of Hansen's disease atypical presentations often present a diagnostic dilemma and challenges treatment & follow up. We present such two cases.

- 1) A 28 year old male presented as Histoid leprosy de novo without prior anti leprosy treatment. Histoid Leprosy is an expression of multibacillary leprosy with typical cutaneous/subcutaneous nodules & plaques present over an apparently normal skin with unique histopathology & characteristic bacterial morphology. It usually manifests in patients on irregular & inadequate Dapsone therapy due to the emergence of ug resistance.
- 2) A 28 year old male patient of Lepromatous leprosy (Histoid de novo) on irregular treatment presented with multiple smooth shiny cutaneous nodules. He was restarted on anti leprosy treatment. After three weeks, he developed papules, pustules, generalized redness & scaling of skin, fever and malaise. Liver function was deranged.

A diagnosis of Dapsone Hypersensitivity Synome (DHS) was made. DHS typically presents with a triad of fever, exfoliative dermatitis, and systemic involvement (lung, liver, neurological and other systems), occurring several weeks to as late as 6 months after initiation of treatment. He was managed with steroids and alternative regimen.

Keywords

Hansen's disease, Histoid leprosy, Dapsone hypersensitivity synome

FP-24

Leprosy - A Great Mimicker

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Introduction

Leprosy is a chronic systemic bacterial infection caused by mycobacterium leprae. It affects apart from skin and peripheral nerves, haemopoietic, reticulo-endothelial and endocrine systems as well as eyes, bones and muscles.

Cranial nerve involvement is not uncommon in leprosy. The fifth and seventh cranial nerves are the most commonly affected in leprosy. Herein we present patients with facial nerve palsy, fissured tongue and orofacial oedema mimicking Melkersson-Rosenthal synome with Hansen disease (BL, Tuberculoid) patches.

Case 1: A 24-year old male presented with a 1 – month's history of deviation of mouth and decreased taste sensations over tongue.

Case 2: A 32 year old male presented with swelling of face and lips followed by yness of mouth since 2 months.

On clinical examination they show single shiny y well defined plaque over right buttock and diminished temperature and tactile sensations over skin lesion with enlargement of left ulnar and both popliteal nerves in case 1 and in case 2 shows multiple erythematous macules to plaques over both upper limbs and back with diminished sensations over lesions. With help of histo-pathological examination diagnosis of BL and Tuberculoid type is confirmed. Patients started on MB-MDT.

Conclusion

Leprosy is a Great Mimicker. Wide spread Leishmaniasis can closely simulate leprosy. The nodules are seen in neurofibromatosis, mycosis

fungoides and now Melkersson-Rosenthal synome. So it is a Great imitator. One should exclude leprosy in patients presenting with isolated cranial neuropathies. Careful clinical examination of patients is needed to diagnose these uncommon presentations.

FP-25

A Clinical study of Cranial nerve involvement in Leprosy

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Background

Leprosy commonly affects the cranial nerves predominantly the 5th (trigeminal nerve) and the 7th (facial nerve). Lepa reactions are risk factors for cranial nerve involvement.

Objective

To study the frequency and pattern of cranial nerve involvement in leprosy and to find its relation with facial patch.

Patients and Methods

The present clinical study was undertaken on 60 consecutive leprosy patients to find out the involvement of cranial nerves in leprosy and to study the relationship between cranial nerve involvement and leprosy patch/patches on facial skin.

Results

Cranial nerve involvement was detected in 18 patients on clinical grounds; males were 66.7%, remaining 33.3% were females. 6 Borderline Tuberculoid (BT), 4 Lepromatous Leprosy (LL), 3 Borderline Lepromatous (BL), 4 Tuberculoid Tuberculoid (TT) and 1 Borderline Borderline (BB) were identified. The most commonly involved cranial nerves were the trigeminal (9 %) followed by facial nerve seen in 7 %, and olfactory in 3%. Most cases with facial and trigeminal nerve

involvement were of BT leprosy types while the majority with olfactory nerve involvement was of the lepromatous leprosy type (BL, LL).

Conclusion

Cranial nerve involvement is common in leprosy, which emphasizes the need to carefully examine them. Also, one should exclude leprosy in patients presenting with isolated cranial neuropathies.

FP- 26

Dapsone Synome: A unique drug reaction

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Dapsone is frequently used worldwide and its use has been predicted to increase further, especially in non leprosy conditions. Side effects of the ug can be remembered as acronym DAPSONE itself. DAPSONE SYNOME, also known as "fifth-week dapsone dermatitis", is an idiosyncratic multi organ disease occurring within 6-8 weeks after dapsone administration. The incidence varies in between 0.3 to 3.6% with male predominance. It manifests as fever, lymphadenopathy, generalized rash and hepatitis occurring after Dapsone intake. Exfoliative dermatitis and /or other skin rashes associated with pruritus, hepatosplenomegaly may occur and be fatal. Among 1,696 leprosy patients treated with MDT 16 patients (1.067%) developed Dapsone syndrome out of them MB 13 cases and PB 03 cases. DAPSONE SYNDROME may also be rarely seen in other diseases treated with dapsone.

Conclusion

In spite of India announced leprosy elimination on 30th January 2006, new cases continue to occur & hence the problem of dapsone synome persists.

Awareness of varied presentations, early recognition, withdrawal of the drug and proper management helps in preventing fatalities associated with DAPSONE SYNDROME.

FP-27

Role of nerve ultrasonography in diagnosis of leprosy

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Introduction

Leprosy is a common disease involving the peripheral nerves with periods of acute neuritis leading to functional impairment, ulcer formation and stigmatizing deformities. Early detection and appropriate management can prevent deformities. B-mode two dimensional real time ultrasonography and Colour Doppler imaging were done to detect nerve involvement in leprosy.

Methodology & Results

Two cases of clinically diagnosed BT Hansen's and five cases of pure neuritic Hansen's (PNL) where nerve thickening was doubtful were taken up for ultrasonography of peripheral nerves. The two BT Hansen's cases showed ulnar and median nerve thickening. Of the five PNL cases, three cases showed ulnar nerve enlargement, obliteration of intraneural fascicles, perineural edema and increased vascularity which indicated reaction. Two of them had only nerve enlargement.

Conclusion

We conclude that sometimes clinical examination of enlarged nerves in leprosy patients is subjective and inaccurate. Also many nerves may not be amenable to palpation. Our study has shown that sonography provides an objective measure of nerve damage by showing enlarge-

ment, increased vascularity and distorted echotexture. Ultrasonography, a non-invasive method, gives more accurate information regarding nerve involvement in leprosy.

FP-28

Lesser known Lookouts & Lesions in Leprosy: A Case series unravelling Leprosy

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Background

Leprosy, although considered a multidisciplinary disorder has always remained the domain of dermatologists. Morphology of cutaneous lesions varies greatly and hence high degree of clinical suspicion is needed to unfurl the diagnosis. We present a series of 6 cases of Hansen's disease, few which mimicked common dermatologic conditions and few which include some interesting observations made by us during our diagnosis.

Case series

The various cases highlighted by us include: post traumatic cellulitis like presentation over the right cheek, cheilitis like presentation over the lower lip, asteatotic eczematoid pattern of topical steroid non responsive skin lesions over the feet, multiple skin colored nodules over the nose with a rosacea like presentation, infiltrated lesions accounting for an erythrodermic pattern with sparing of the skin creases ("Deck chair sign"), solitary anesthetic hypopigmented plaque with tattoo sparing phenomenon.

Conclusion

Leprosy mimics many dermatological as well as diseases in the field of medicine and surgery. In the present scenario, with focus of dermatologists shifting towards cosmetology and

resurgence of Hansen's disease, knowledge about the various presentations of cutaneous lesions of leprosy will enable early recognition, diagnosis and treatment.

FP-29

Involvement of the cranial nerves in leprosy

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Background

Mycobacterium leprae has a unique affinity for the peripheral nerves, in which it colonizes. The pathogenesis mostly starts in the peripheral nerves. Many workers view leprosy primarily as a neural disease, with Schwann cells as the main target. In the words of Fite - "There is no non neural leprosy".

Cranial nerves are also commonly involved in leprosy. Among the cranial nerves, facial nerve was the most common nerve involved, followed by olfactory, trigeminal and auditory nerves. In the first case facial nerve involvement manifested as lagophthalmous, a hypoanaesthetic patch on the same side was also observed. In our case of lepromatous leprosy bilateral involvement of auditory nerve with sensorineural hearing loss was a notable feature.

Conclusion

As per literature survey, sensorineural hearing loss found to be of cochlear origin was detected in eight (22%) of the patients with leprosy compared to none in the control group ($p > 0.05$). Vestibular dysfunction was noted in four patients (11.1%) compared to none in the control group ($p = 0.05$). Two cases were found to have fifth nerve involvement and one (2.8%) had seventh nerve involvement.

FP-30

HIV and Leprosy co-infection: Is it on the rise?

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A 26 year old male patient admitted in ENT Ward for neck swelling was referred for evaluation of a rash over the right ear. There was no history of fever, joint pain or other systemic complaints. Cutaneous examination showed an erythematous, infiltrated, hypoaesthetic plaque with ill defined borders over the right ear.

Greater auricular nerve was grossly enlarged. Routine hematological, urine and biochemical examinations were normal. Slit skin smear, VL and HbsAg tests were negative. Patient was treated with various topical preparations without improvement. A clinical diagnosis of Borderline Tuberculoid Hansen's was made. He was sero positive for HIV 1 with 410 CD4 cell count. Histopathology confirmed the diagnosis and patient was started on PB MDT.

Conclusion

Increased awareness regarding HIV-leprosy co-infection should be recognized for proper management of both the diseases.

FP-31

A rare coexistence: Lepromatous Leprosy and TB in a 14 year old female

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Background

Both Leprosy and Tuberculosis are chronic granulomatous diseases caused by acid fast bacilli *Mycobacterium leprae* and *Mycobacterium tuberculosis* respectively. The infrequent occurrence of these two diseases in a single individual

is explained by higher reproductive rate of tubercular bacilli than lepra bacilli and the degree of cross immunity they offer in an individual. We report a case of lepromatous leprosy and pulmonary tuberculosis in an individual diagnosed simultaneously at her first hospital visit.

Case report

A 14 year old female student admitted with fever (typical evening rise of temperature) for 4 months. History of decreased appetite with significant weight loss. Insidious onset of skin lesions over ear lobules and trunk since 3 months. Based on clinical findings and investigations a diagnosis of sputum positive pulmonary tuberculosis with Hansen's disease was made. She was started on both MB-MDT and DOTS. Patient is under our observation and follow-up and she is doing well.

Conclusion

Rifampicin is a bactericidal ug and constitutes important ug in the treatment regimen of both leprosy and tuberculosis. So the latter must be screened out in each and every patient of leprosy to avoid a required ug resistance to rifampicin due to single ug therapy.

FP-32

Importance of media to face current challenges of NLEP

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Despite the fact that leprosy cure is not a problem, stigma continues to be a major obstacle in leprosy control work. The role of media in tackling the issues related to leprosy is crucial. Many government agencies and funders prefer to focus on service delivery and treatment which has measurable results, whereas it's very hard to

measure the impact of media initiatives that aim to bring about societal change.

It is important that all institutions/NGOs working to reduce stigma through media should be evidence based, researched and targeted. In order to fulfil this objective, the current paper aims to discuss the operational aspects and importance of various models of media intervention such as TV, radio, ama, the creation of journalist networks, public service announcement (PSA), campaign etc.

FP-33

Importance of behavioral inputs and community action in future NLEP to be implemented by PHC

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Realising the need for reinitiating the NLEP in India with major emphasis on community action, to be monitored by the Primary Health Care as integral part of horizontal system, a community based action research project has been designed by The Leprosy Mission Trust India.

Objective of the paper is to discuss various behavioural inputs to be implemented in the PHC based NLEP strategy and the training needs of PHC staff, against the hypothesis that, in the absence of vertical programme, success of NLEP would be predominantly determined by the degree of Community Action.

Research priorities emphasized in the paper include:

Community Action needs to be designed, implemented and evaluated by Leprosy Affected Persons and Healthy Community Members.

Major leprosy control activities viz. early

case detection, prevention of defaulting, promotion of Reconstructive Surgery and reduction of social stigma etc can be monitored by Community Action.

NLEP/PHC staff needs to be orientated in Counselling and Community Action to be able to facilitate Community Action.

FP-34

Social issues and approaches of the people affected by leprosy in changing scenario - an insight

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The stigma associated with leprosy, which has prevailed in virtually every culture and has resulted in discrimination, stereotypes, labeling, and ultimately the exclusion of individuals affected by leprosy from equal participation in society. Adoption by the UN General Assembly on 21 December 2010 of the resolution on Principles and Guidelines for the Elimination of Discrimination against Persons Affected by Leprosy and their Family Members was a milestone.

In a changing scenario some social issues have been identified and the three main issues have been discussed with the help of literatures available. These issues are basics of the social needs of the people affected by leprosy, how they can be participated in this process and empower them to overcome on these issues by making a proper action plan.

There are three basic issues which are looked into they are Stigma discrimination, Equity, social justice and human rights and the last one is gender. Following approaches will empower them to overcome on the issues. Working with them, learn for the experiences and participation in making action plans. Encourage people to voice

for the injustice on them, develop women groups, and promote participation of the women in decision making process and delivery of services.

The main objective of the article is to recognize the expertise of 257 individuals who have had the disease and, through partnership (3 NGO's, 1 Kusht Sanghatana) in Ramnad District TN, enable these individuals to support and stand for their rights. The efforts to be made to promote opportunities for each person to realize ways in which they can involved in overcoming on the issues by proper action plan. This will lead to people affected by leprosy being respected in their duties as contributing member of the community.

Key Words

Stigma, discrimination, social justice, human rights, gender.

FP-35

The way forward for leprosy elimination and eradication - an insight

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Background

Leprosy remains a major public-health problem in nine countries in Africa, Asia, and Latin America. Alarmingly, these countries don't show a marginal decline in the case-detection rate. Now countries such as Tanzania have crept back onto the endemic list, having reached their elimination target in 1997. So has elimination been the most useful target to go for.

Eradication would mean the complete absence of leprosy and the organism (*Mycobacterium leprae*) that causes it throughout the world. At present, we lack the tools both to protect people from developing leprosy and to diagnose and treat the disease in its sub-clinical form.

Significant resources would be required to develop and deploy the necessary tools, hence it was decided to aim at elimination of the disease as a public health problem, as the first step instead of eradication.

In order to ensure that leprosy does not go underground, the elimination strategy must be swiftly converted to a post-elimination strategy

Conclusion

To attain the elimination of leprosy, it is necessary to find effective interventions to interrupt transmission of *M. leprae* and practical diagnostic tools to detect levels of infection that can lead to transmission. This requires extensive research in the areas of epidemiology and microbiology.

FP-36

Clinico-pathological correlation in Hansen's disease

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Background

Leprosy is a chronic infectious disease caused by *M. leprae*. The aim and objectives of our study was to identify the various types of Hansen's disease, to study the clinico-pathological correlation in suspected cases of Hansen's disease.

Methodology

The study was conducted in patients attending skin OPD from a period of Jan 2014 to Jan 2015. All clinically suspected cases of Hansen's disease were included. Patients already on MDT were excluded from the study. Detailed clinical history and examination was done and all patients were subjected to skin biopsies.

Results

Out of the 20 patients of clinically suspected Hansen's disease, 10 patients were confirmed on

biopsy (50%). Among the patients confirmed of Hansen's disease 4 were of lepromatous leprosy (40%), 3 of borderline tuberculoid (30%), 2 of tuberculoid type (20%) and 1 of borderline lepromatous (10%). Of the others 1 case of PMLE, 1 case of sarcoidosis and the rest did not have any histopathological findings of Hansen's disease but were treated with anti leprosy treatment with adequate response.

Conclusion

Although histopathology is considered to be a confirmatory tool for the diagnosis of leprosy, clinical examination in diagnosis is of vital importance in the treatment.

FP-37

Comparative evaluation of PCR amplification of RLEP, 16S rRNA, rpoT & Sod A gene targets for detection of *M. leprae* DNA from Clinical and Environmental Samples

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Background

PCR assay is highly sensitive, specific and reliable diagnostic tool for the identification of pathogen in many infectious diseases. Genome sequencing *M. leprae* revealed several gene target that could be used for the detection of DNA from the clinical and environmental samples. The PCR sensitivity of particular gene target for specific clinical and environmental isolates has not yet been established. The study present was conducted to compare the sensitivity of RLEP, rpoT, Sod A and 16S rRNA gene targets in detection of *M. leprae* in

Slit Skin Smears (SSS), blood, soil samples of leprosy patients and their surroundings.

Methodology

Leprosy patients were classified into paucibacillary (PB) and multibacillary (MB) types. Ziehl-Neelsen (ZN) staining method for all the SSS samples and bacteriological index (BI) was calculated for all patients. Standard laboratory protocol was used for DNA extraction from SSS, blood and soil samples. PCR technique was performed for the detection of *M. leprae* DNA from all the above mentioned samples.

Results

RLEP gene target was able to detect presence of *M. leprae* 83% of SSS, 100% of blood samples and in 36% of soil samples and was noted to be the best out of all other in gene target (*rpoT*, *Sod A* and 16S rRNA). It was noted that RLEP gene target was able to detect highest number (53%) of BI-negative leprosy patients amongst all the used gene targets.

Conclusion

Amongst all the gene target used PCR positivity using RLEP gene target was highest in all the clinical and environmental samples. Further RLEP gene target was able to detect 53% of blood samples as positive in BI-negative leprosy cases indicating its future standardization and use for diagnostic purpose.

FP-38

Association of TNF- α -238G/A, -308G/A & IFN- γ +874 A/T single nucleotide Polymorphism and their Serum Cytokine levels in Leprosy and HIV-Peripheral Neuropathy

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Background

M. leprae and HIV are causative agents known to be involved in nerve damage. In addition, host factors such as cytokine levels and their single nucleotide polymorphisms (SNPs) could be associated with HIV and leprosy neuropathy. The present study is on cytokines TNF- α and IFN- γ in leprosy and HIV-PN.

Methods

113 HS, 101 HIV, 88 leprosy, 39 HIV-PN and 52 other neuropathies (ON) patients were evaluated in the present study. Serum cytokine levels were measured by sandwich ELISA. SNPs of TNF- α -308 G/A, -238 G/A and IFN- γ +874 were investigated by ARMS-PCR. These frequencies were compared between groups by chi squared tests to determine statistical significant differences.

Results

Serum TNF- α and IFN- γ was significantly increased in leprosy ($p=0.00$) and HIV-PN ($p=0.00$) and ON ($p=0.00$) as compared to HS. A statistically significant association was found between IFN- γ +874 A/A in HIV-PN ($p=0.00$; OR=8.9), leprosy ($p=0.00$; OR=7.9) and ON ($p=0.00$; OR=8.9) as compared to HS. Our study did not find any correlation between SNPs and serum cytokine levels in leprosy, HIV-PN and ON.

Conclusion

This data suggests a common involvement of cytokines TNF- α and IFN- γ in neuropathies. Association of IFN- γ A/A genotype SNP in leprosy, HIV-PN and ON suggests that this could be involved in pathogenesis / susceptibility to

peripheral neuropathy. They may not be any significant regulatory effect of SNPs on the serum cytokine levels as they were not correlated to each other.

FP-39

Rare case of ocular leprosy with no dermatological clinical signs of leprosy

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Background

A 30 yr old female presented to our OPD with complaints of blurring of vision with associated redness, pain and photophobia in left eye for the last 2 weeks. There was no history of any discharge or any trauma to the eye. There was no systemic involvement, no anaesthetic patches on body, and no enlarged tender nerves seen.

Methodology

On examination visual acuity in right eye was 6/9 N6 and in left eye was 6/18 and N8. Slit lamp examination in right eye showed enlarged corneal nerves with normal AC depth and lens. Left eye examination showed anterior chamber cells 3 + and moderate flare. Pupil was irregular with posterior synechia from 10' clock to 4o' clock and fundus examinations of both the eyes were within normal limits.

Results

Aqueous humour sample was taken from the eye for the detection of *M. leprae*. PCR targeting *M. leprae* gene (RLEP) and multiplex PCR for 16S rRNA, SodA gene from aqueous humour and blood was done. Patient had on and off episodes of redness and pain in the left eye in the past one year for which she underwent treatment in a hospital. She was on topical steroids and cycloplegics in the past.

Conclusion

PCR targeting *M. leprae* gene (RLEP) from aqueous humour and blood was done and found to be positive. Further, to confirm the presence of *M. leprae* we did multiplex PCR targeting 16S rRNA, SodA gene and PCR was positive for all target sites from aqueous humour.

FP-40

An interesting case of polar Tuberculoid (TTP) leprosy with Clinico-histopathological correlation

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A single skin patch of leprosy clinically, could be a Indeterminate (Ind) or Tuberculoid (TT) or rarely Borderline Tuberculoid (BT) type. The timely use of skin biopsy and dependable histopathological (HP) facilities, not only helps to make a definite diagnosis but also helps in prognosis, treatment and prevention of sequelae. Since Puducherry region is well served by several tertiary medical institutions, it is possible to achieve it.

In this background we report a case of newly diagnosed polar Tuberculoid (TTP) leprosy presented in our community health centre, Mannadipet of Puducherry. The patient was a female health worker aged 45 years. She complained of a skin patch over the left leg, gradually enlarging of six months duration.

Examination revealed a single well demarcated, moderate sized hypopigmented patch with erythematous infiltrated margins, hypoaesthesia, hairloss and central clearing over the anterior aspect of the left lower leg. The peripheral nerve trunks had no abnormal thickening. The

cutaneous sensory nerves like superficial peroneal and sural were thickened. After counseling about the diagnosis and treatment a skin biopsy was performed and she was started on PB-MDT.

Histopathology showed Grenz zone obliteration by granulomas and epitheloid cell granulomas cuffed by moderate lymphocytes in skin adnexa and dermal nerves.

Key words

TTp leprosy, Cutaneous nerves, HPE study.

*FP-41

Multiple strain infection of *Mycobacterium leprae* in a family suffering from leprosy

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Mycobacterium leprae the causative organism of leprosy is a rod shaped acid fast bacilli, it infects and affects that primarily affect superficial tissues, especially the skin and peripheral nerves. Leprosy is one of the oldest infectious diseases afflicting mankind. In endemic settings multiple persons in a family are known to suffering from the disease. In the present study we are reporting the multiple strain infection in a family having 4 leprosy patients using STR genotyping. Slit skin smear samples were taken from the patients (2 MB patients and 2 PB patients). DNA isolation was done by the standard method standardized in our lab. For amplification of STR region containing (TA)₁₂CA₃ using the primers F-CCTATCGATCTATGGCTTCC AND R-CCCGTACTTTATCGGCTCTA. The amplified products were resolved in 2% agarose and directly sequenced by 3130XL Applied Biosystem sequencer. We found that 3 person

(2PB and 1MB) patient having one type of STR i.e., (TA)₁₁CA₃ but one MB patient a different strain of *M. leprae* having variation in the copy number of the STR region i.e., (TA)₁₃CA₃ was isolated. This probably implied that the person was infected by the *M. leprae* strain having a different variable number of tandem repeat got the leprosy infection from outside the family.

*FP-42

Use of molecular diagnostic: RLEP-PCR for case detection of leprosy in post elimination era: A study from Ghatampur, India

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The diagnosis of leprosy is based to a major extent on clinical grounds due to limited availability of efficient laboratory investigations. Among the available laboratory tests for leprosy the most commonly used is AFB smear microscopy by the ZN stain due to its high specificity. However this test has a limited sensitivity ranging from 10 to 50%. Molecular tests like RLEP-PCR have been demonstrated to have a higher sensitivity by several researchers and found to be advantageous over AFB both in terms of specificity and sensitivity. This has added advantage especially in the scenario of declining leprosy prevalence in the community as specific laboratory tests are needed for rapid, documented and accurate diagnosis of the disease. The objective of the study was to assess the molecular technique (RLEP-PCR) in the field condition where majority of the patients are AFB negative. In the present

study 169 patients, clinically diagnosed, and living in Ghatampur tehsil (MRHRU work area) were included. The slit skin smears of the patients were taken for AFB and the blades after making of skin smear were dipped in the TE buffer and were used for *M leprae* DNA isolation. The isolated DNA was then amplified for RLEP-PCR using standard protocol. Out of 169 patients recruited in this study, 12 (7.1%) were AFB positive while 157 cases were (92.89%) AFB negative. However, the RLEP-PCR positivity was 77 (45.56%). It was observed that both among PB and MB patients the sensitivity of the RLEP-PCR was significantly higher. Thus this test with slit smear specimens could be useful in detection and laboratory confirmation of leprosy cases in the field conditions.

***FP-43**

A study on endemicity of Leprosy in selected districts of Chhattisgarh

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Background

After the use of present day MDT India has successfully achieved the elimination target at the national level. However, in some parts of the country pockets of endemicity do remain and need to be investigated, urgent treatment strategies are required to investigate and treat these population. Some districts of Chhattisgarh report annual new case incidence of leprosy of more than 1 per 10,000, while other districts in the state report a much lesser incidence. The living conditions, cultural habits, personal hygiene may be playing a role, but other factors like reservoirs of infection, transmission dynamics etc need to be investigated.

Object

To assess the disease burden in selected districts to study the profile of disease and treat them.

Methodology

To Investigate endemicity in selected districts of Chhattisgarh. Multistage stratified cluster sampling has been used. All districts of were stratified in two strata according to ANCDR reported to NLEP. Districts with high prevalence (ANCDR>10/100000) and districts with low prevalence (ANCDR<10/100000) were stratified in two. Two districts namely Mahasamud from high and Surguja from low endemicity are selected with SRS. From each selected districts. 50 clusters (village/wards) are selected with Probability Proportional to Size (PPS) sampling. from selected village/ward all persons were screened by trained ASHA workers and suspected cases are confirmed by experienced clinicians.

Observations

In the selected clusters screened in Mahasamud 133 cases were detected from 100,002 surveyed population, 31 cases were detected in 65340 population surveyed in Surguja. A total of 164 leprosy cases were detected from both the districts. Out of 164 cases 133(81.10%) were male and 31(18.90%) were females; 101(61.59%) cases are MB and 63(38.41%) are PB; 59(35.98%) cases had history of close contact; 28(17.07%) cases were detected with deformities. Among the cases with deformities 8(28.57%) with type I and 20 (71.43%) with type II. Patients hailed from all category of community. Detailed analysis will be presented.

Conclusion

There is need to train health workers and urgent rapid surveys with support from trained health workers, Mitans help to identify cases and treat them.

***FPs 41-43 were circulated at the conference**