

UPDATE

CONTINUING MEDICAL EDUCATION

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Leprosy Among Children

Around 300000 new leprosy cases are detected in India every year. About 15% of these cases are among children. It is paradoxical to assert but nevertheless true that in highly endemic situations though quite a significant proportion of child population may be affected indicating active transmission of infection, a majority of them would experience spontaneous cure of their disease. This certainly poses a dilemma. Since there is no way of knowing which of them will self-heal, it becomes inevitable to treat every child with confirmed diagnosis of leprosy. A child with skin lesions suggestive of leprosy often poses a diagnostic challenge. It may be difficult to confirm the cardinal sign of sensory loss in skin lesion because of the difficulty of eliciting proper response to the sensory stimulus. The problem is confounded by the fact that various instruments and procedures are used to do the sensory test. Often, the site of lesion (especially face) may be such that sensory deficit may not be apparent. Over and under diagnosis could then be expected.

Number of children with leprosy detected in an area is often used to indicate active transmission of leprosy and indirectly the extent of endemicity. The proportion of new child cases among the new cases detected, the indicator that is generally used to assess the impact of the programme, is influenced by operational factors. Active case detection, especially school surveys, tend to yield larger numbers a majority of which would be single lesions and therefore are likely to self-heal. More frequent surveys capture more cases. When there is pressure on the health workers to detect cases in order to realise targets, the easiest way to accomplish the target is to carry out school survey. In the initial phase of MDT implementation about 25% of the new cases detected used to be among children because of the intense school surveys that the field workers resorted to. About 60 to 70% of these cases used to be of single skin lesion. Sometimes, the schools used to be covered twice in a year resulting in a large number of child



cases. One should therefore be cautious in interpreting the trend of new child case proportion in the absence of information on the operational factors. A declining trend in the new child case proportion in the absence of active case detection and against the background of reasonably good levels of community awareness is certainly informative. In low endemic states (Kerala and Karnataka) the child case proportion among new cases is found to be around 15% whereas in initially high endemic states (Tamil Nadu and Andhra Pradesh) it has been found to be above 20% (*see page no. 4*). But it would be worthwhile to look at shift in the age of onset of disease to older ages which is indicative

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of positive impact of interventions. As one approaches low endemic levels more people of older ages would manifest the disease and attack rates among children will decline. It is therefore essential to look at the trend of age of onset of the disease or attack rates in different age groups in addition to proportion of new child cases. Centres with good data sets collected over a period of reasonably efficient programme implementation could be identified at zonal levels. Data from these sentinel centres could give an interesting insight into the natural history of disease and tell us if the disease is on the way to oblivion.

Since diagnosis of leprosy in a child causes intense psychological distress to the child and the family members one should be careful in confirming leprosy. The staff should be made aware of these facts during training sessions

Less than 2 percent of new cases detected in India have visible deformity. But deformity due to leprosy among children is less common. Moreover, data on child deformity due to leprosy is not available. A child with deformity due to leprosy is the most distressing sight one could ever lay ones eyes on. Early detection and prompt treatment with MDT could prevent its occurrence.

Childhood leprosy is clinically challenging, epidemiologically significant and socially consequential. It is also the barometer of effective MDT intervention.

Mr. Muthumalla Reddiar retires from the membership of Damien Foundation India Trust



Mr.K. Muthumalla Reddiar, a philanthropist, an agriculturist and a compassionate socialist all rolled into one, retired from the membership of the trust on 9th October 2004. He served as a member of the board right from its inception in 1992.

His interest in those affected with Leprosy and compassion for fellow human beings saw him donating a sizeable piece of land in Polambakkam for the establishment of night segregation

center by Dr.R.G. Cochrane. In 1955, Dr.F. Hemerijckx who was in search of a location to establish a leprosy center found the night segregation centre an ideal place for doing leprosy control work and adopted it from Dr. Cochrane. Mr. Muthumalla Reddiar gave him all the necessary help in establishing and equipping the center which came to be called Belgian Leprosy Centre. Later, he donated another piece of land to accommodate old, mutilated and homeless leprosy patients. Beatitude-Anandapuram was established there and it is currently maintained by DFIT.

“Co-operation” is a poor word to express all the services Mr.K. Muthumalla Reddiar has rendered for the Leprosy center. He ensured that all facilities were available to the patients; he was ready to help at any time and in any circumstance the health team working at Polambakkam. He actively participated in the fund raising for the silver jubilee celebration and helped in the supervision of the hospital construction.

Damien Foundation India Trust is ever thankful to Mr. Muthumalla Reddiar for all the guidance and service he has offered to DFIT. During his long association with Damien Foundation and with persons affected with and working in leprosy his benevolence has touched and benefited many and has made their lives meaningful and memorable. I am truly privileged to be associated with him. I wish him a long, peaceful, and healthy life.

Dr.Claire Vellut
Founder member of the Trust.

COMPETENCE AND COMMITMENT

Mr. Jesuraj, aged 40, from a village 10 kms from Dindigul visited Kamala Nehru Municipal Health Centre in Dindigul Urban with a complaint of severe itching all over the body. Dr. Silambu Selvi, Medical Officer of the Municipal Health Center noticed the shininess of the face and the thickening of the earlobes. She examined the body



and found multiple ill-defined patches with normal sensation, and both his Lateral Popliteal nerves were thickened. She prescribed Anti histamine tablets for itching and asked the patient to come for review after a week.

The patient visited the health center as advised by the Medical Officer. The Doctor examined him again and diagnosed Leprosy. The patient was referred to St. Josephs Hospital for skin smear test. The result was bacteriologically positive (Left ear lobe = 3+, Right ear lobe = 4+, Right eye brow = 2+). Patient was referred back to the Municipal health center with skin smear result. Patient had never been treated before. The Medical officer wished to treat the patient though he did not belong to her area of operation. MB MDT treatment was started on 27-9-04.

The Municipal Health Centre, which has been involved only in



Maternity and Child health programs, has shown that with the proper guidance it can accept the responsibilities under NLEP and help in the integration of Leprosy services in the general health setup.

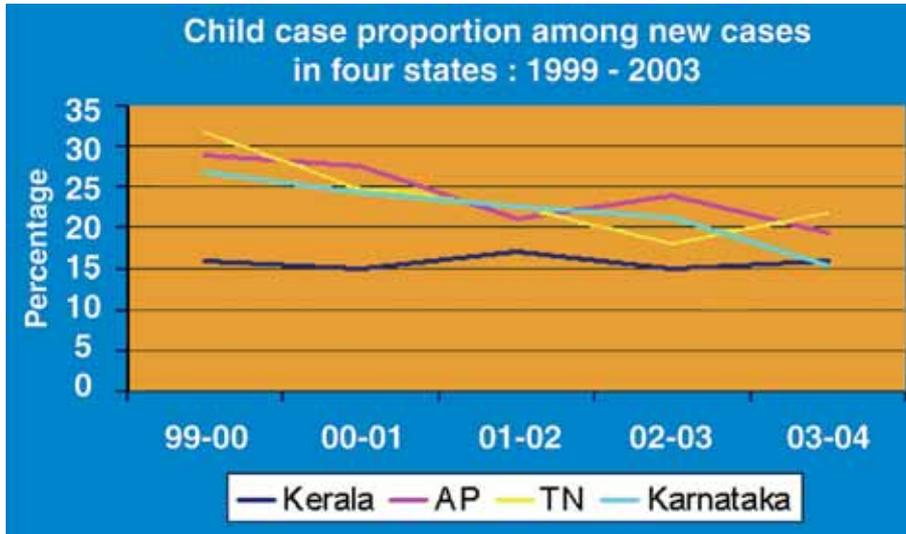
TO ERR IS INHUMAN !

Mrs. Annesha Khatoon, a 30 year old lady, a resident of Rajjak Babu Tolla under Pandaul PHC in Madhubani district of Bihar, reported to the PHC with an erythematous and anaesthetic patch over right leg, on 01-03-2003. The MO i/c of PHC confirmed it as a case of leprosy and started PB-MDT. On 25-4-2003, a validation team examined her and declared as not a case of leprosy and the MDT was stopped. She developed pain and burning sensation over the right leg and sole and went to Dharbanga Medical College on 26th August 2004. She was diagnosed there as a case of MB leprosy and MB MDT was started. One month later she developed right foot drop. Steroid was started on 26th October 2004. When we saw her (in December) she said that pain and burning sensation were reduced. We examined her. Right lateral popliteal nerve was found to be thickened, nodular and not tender. The weakness in the foot however was still there. Who is to be held responsible for her plight?



Dr. B. Sekar,
CLTRI,
Chingleput

Leprosy Among Children



Primary Health Centre with a difference.....

Sukkampatti PHC covering a population of 49000 is one of the PHCs in Trichy district in Tamil Nadu which is providing quality MDT service including POD care. Dr.Sumathi and her team of 9 village health nurses manage not only simple cases of Leprosy but also

patients in reactions and with disabilities. Sukkampatti PHC is an example of how the functionaries at health facilities with some guidance can make a world of difference to the community.



Dr.Sumathi and her team at Sukkampatti PHC



Mrs.Saroja, VHN, counseling an MB Patient, Mrs.Chinnammal.



Palaniswamy who had ulcers in the feet doesn't have ulcers nor scars following intense monitoring of self-care by VHN, Mrs.S.Saroja.

CHANTIER DAMIEN TEAM PARTICIPATED IN THE CONSTRUCTION OF AN ADDITIONAL PHC AT SINGHURGURI IN EAST SINGHBHUM DISTRICT OF JHARKHAND

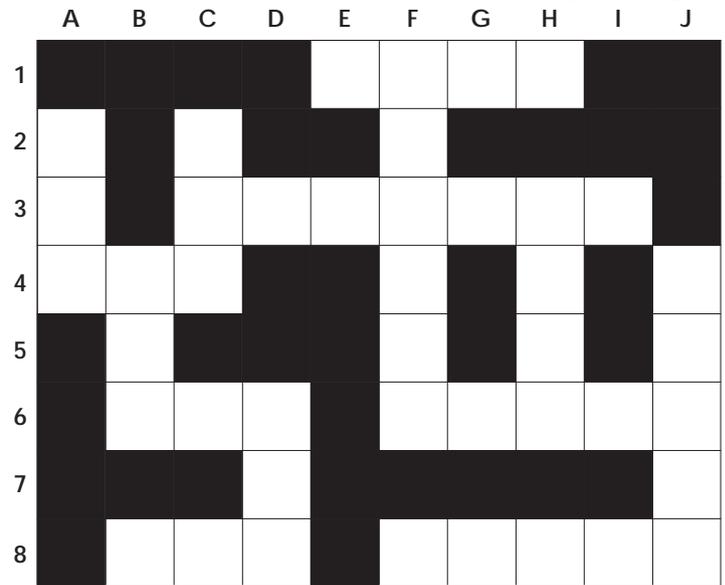


“ Being a volunteer in the construction activity, working in a plain between the mountains of the E.Singbhum district, we saw the poetry of the rice fields, the loveliness of the river and the calm of the mountains. The work though done in temperatures of 35 C and with humidity at 90% it was a different holiday for us. Local tribal workers joined us in our work and we had great respect for their bearing hardship without complaining. We shared lots of experiences by telling each other some adventurous travel stories by keeping our diaries or by exchanging good books. We had a magnificent view of a world where human life can be very hard, but where spirituality, goodness and beauty are always integrated.

It was truly a holiday of different kind, where we had to switch quickly from western thinking and customs to the Indian way of life. Democrites was so right when he said, “The Wise man’s home is the universe”.

Mr.Karel Platteau
Member, Chantier Team, Belgium.

CROSSWORD - L1 (Leprosy)



ACROSS:

- 1E International Agency
- 3C Anti-Leprosy Drug
- 4A End of Treatment
- 6F Target of M.Leprae
- 6B Patient Admission
- 8F Complication in extremities
- 8B Program Officer

DOWN:

- A2 Used for insensitive feet
- B4 Leprosy treatment for Fixed duration
- C2 Present treatment for Leprosy
- D6 International Health Agency
- F1 Any pathological presentation
- H3 Epidemiological Indicator
- J4 Lab test for Leprosy.

PILLAR OF HEALTH SERVICE

Mrs. Saritha Devi, is a female health worker working in Badibhais Diyara Health Sub-centre, under Barari PHC, which is also a TU, in Katihar district of Bihar. She has been working in this sub-centre for 12 years. She was trained in RNTCP at the PHC.

Now she is providing DOTS for 14 TB patients; 6 of them under Category I and 8 under Category III. All the patients are taking treatment regularly. She refers them for followup sputum examination at the stipulated time. She is also providing MDT for 3 PB leprosy patients.

She has referred one TB suspect who was diagnosed as new sputum positive TB. Mrs. Saritha Devi deserves appreciation for her involvement in the RNTCP, which was implemented only in the month of March 2004 in her district.

Dr.B.Sekar,
CLTRI, Chingleput



TB CONTROL PROGRAMME

Why sputum positive cases are not registered for treatment ? (DOTS)

Procedures have been laid out in RNTCP to ensure that all newly detected TB patients especially sputum positives are put on appropriate treatment. We come across instances where newly detected sputum positive TB patients are not registered for treatment.

Why importance to sputum positive TB patients?

Risk of death is high among untreated sputum positive TB patients. Untreated sputum positive TB patients are the source of infection for tuberculosis. RNTCP as a public health programme focuses on sputum positive TB patients.

Why newly detected TB patients are not registered for DOTS?

- Address is incorrect or inadequate.
- Patient is not informed of the next step.
- Referral slip is not sent / does not reach concerned health facility.
- STS does not verify lab register.
- STS does not compare lab register with TB register (for newly detected sputum positive patients).
- Patient is not started on treatment at the health centre.
- Patient is started on treatment but treatment card is not made.
- Treatment cards are not made available for verification.

- STS registers only if patient is regular on treatment (after starting treatment).
- STS registers only if patient stays in the area for few months (after starting treatment).

Recommendations:

The main reason is lack of supervision at different levels.

MO (MC) should check whether

- TB patients are counselled.
- Referral slips are sent to concerned health facilities.

MO-PHC should check whether

- All TB patients referred are started on treatment (verify referral slip & treatment card).
- Treatment cards are made for all TB patients.
- Treatment cards are available for registration.

MO-TU should check whether

- STS visits all MC and health facilities regularly.
- Newly detected sputum positive TB patients are entered in TB register (cross verify TB register & lab register).
- There is delay in starting treatment at PHC.
- Treatment cards are available for all TB patients on treatment.

Answers to questions for Case report (TB) published in the previous issue of UPDATE



1. What is the diagnosis?

Erythema Nodosum

Erythema nodosum is a fairly uncommon, but distinctive, clinical syndrome. It consists of a reaction in the skin and deeper tissues that almost always occurs on the shins.

It is said to be more common in women than in men. Usually, several tender red nodules are present on both legs. There may be fever, aching joints, and fatigue. Over a period of weeks,

the nodules become less tender, turn purplish, and heal without scarring. Rarely, they recur periodically.

2. What are the conditions that can cause such clinical picture?

The real significance of Erythema Nodosum lies in the possibility of a serious underlying disease. Although in some cases no such underlying cause is found, most are associated with either a drug that has been taken, an inflammatory condition elsewhere in the body, or an infection.

a. Infection: Leprosy, Tuberculosis, Lympho Granuloma Venerium, Histoplasmosis, Chlamydial infections, Leptospirosis, Hepatitis B

b. Drugs: Penicillin, sulphonamides, barbiturates, oral contraceptives

c. Colitis: Ulcerative colitis, regional enteritis

d. Miscellaneous: Crohn's disease, Sarcoidosis, Hodgkin's disease, Leukaemia

e. Idiopathic: Post radiation therapy

3. Why should it be treated?

Erythema Nodosum generally occurs in mild form. It is generally self limiting. Recurrence is uncommon. Direct complications are nil. It is usually a part of syndrome.

Underlying cause need to be treated. Symptomatic treatment is suggested. Specific treatment is not indicated. If the episode of EN is associated with

severe constitutional symptoms or there is a risk of ulceration of nodules then steroid therapy is indicated.

4. How do you manage this episode?

This patient has few nodules with mild tenderness. Treat the underlying cause. Symptomatic treatment is recommended if needed.

- NO cause is found in 60% of cases
- Drug (iodides, bromides, sulfonamides)
- Oral contraceptives
- Sarcoidosis or Löfgren's syndrome
- Ulcerative colitis, Crohn's disease, Behçet's syndrome
- Microbiology: any chronic infection (bacterial, viral, yersinia, tuberculosis, leprosy, deep fungal)

References:

1. Clinical tuberculosis by John Crofton, Norman Horne, Fred Miller.
2. Principles and practice of medicine by Sir Stanley Davidson & John Macleod 10th edition 1972.
3. French's index of differential diagnosis
4. IADVL text book and atlas of dermatology Vol. 1.
5. Robert T. Brodell, MD; Don Mehrabi, MS IV, VOL 108 / NO 6 / NOVEMBER 2000 / POSTGRADUATE MEDICINE

Web sites of interest:

1. www.postgradmed.com
2. www.umm.edu
3. www.emedicine.com
4. www.diagnoseme.com

CLINICAL DIAGNOSIS OF LEPROSY

Sensory test (For illustrations see page 8)

- Choose the right environment
- Use standard instrument (ball pen)
- Explain to the patient
- Trial test - demonstrate with the patient eyes open
- Real test - do the test with patient's eyes closed
- Pen perpendicular to skin; gently place it; from normal to affected; never stroke; no repeated stimuli
- Do not ask patient, "can you feel it?"
- Ask the patient to show the spot touched with index finger (accessible part of body)
- Ask the patient to count in inaccessible parts

CLINICAL DIAGNOSIS OF LEPROSY

Sensory test (For details see page 7)



Explain
to the
patient

Demonstration
(with the patient
eyes open)



Do the test
(with patient's eyes
closed)