LEPROSY

- MS.VANITHA
- TUTOR
- ICON

The history of leprosy

LEPROSY IN THE PAST

History of Leprosy

- Leprosy has existed since biblical times
- Once existed in Europe from 1–2000 BC, it has since disappeared in Europe
- Leprosy still exists in many countries in Asia, Latin America, and Africa

MODERN HISTORY OF LEPROSY

- 1893: Doctor Armaur Hansen of Norway discovers *M. Leprae* bacilli
- 1950s: Doctors begin using Dapsone to treat leprosy
- 1982: Leprosy develops resistance to Dapsone; the World Health Organization recommends multi-drug treatment

MODERN HISTORY OF LEPROSY

- Since 1982, **Multi-Drug Therapy has made a huge impact**
- 1985 leprosy was considered a health problem in 122 countries
- Work has been progressing steadily toward a vaccine

EPIDEMIOLOGY

- Leprosy is a disease of **developing countries** but affects all races.
- Registered cases of leprosy have **fallen from 5.4 millions** worldwide in **1985** to **below one million in 1998; and by 2009 it is about 2 lakhs.{WHO}**
- 80% of the worldwide cases are found in five countries, namely **India, Mynamar, Indonesia, Brazil and Nigeria.**

WORLD STATUS

- In 1991 WHO's governing body, the World Health Assembly (WHA) resolved to **decrease** in the world by **90%** leprosy as a public health problem by the year **2000.**
- **Elimination of leprosy as a public health problem is defined as a prevalence rate of less than one case per 10 000 persons.** The target was achieved on time and the widespread **use of MDT** reduced the disease burden dramatically.

World status

- Over the past **20 years**, more than **14 million** leprosy patients have been **cured**, about 4 million since 2000
- The **prevalence rate** of the disease has dropped by 90% – from **21.1 per 10 000** inhabitants to **<1 per 10 000** inhabitants in 2000.

Dramatic decrease in global disease burden:

The Leprosy Mission Canada

World Status

- Leprosy has been eliminated from 119 countries out of 122 countries where the disease was considered as a public health problem in 1985.
- So far, there has been **no resistance** to antileprosy treatment when used as **MDT**.
- Efforts currently focus on eliminating leprosy **at** a **national level** in the remaining endemic countries and at a **sub-national level** from the others.

WORLD STATUS

New cases detected during 2008 was 2,49,007.

A 4% decrease during 2008 compared with 2007.{WHO}

The Leprosy Mission Canada

WORLD STATUS

New cases detected during 2009 was 2,44,796.

A 1.69% decrease during 2009 compared with 2008.{WHO}

The Leprosy Mission Canada

WORLD STATUS

Registered prevalence at the beginning of 2009:**2,13,036**

Registered prevalence at the beginning of 2010:**2,11,903**

Registered prevalence at the beginning of **2011:192,246**

Proportion of females among newly detected cases in 2009

43.71 % globally

SEAR: 3.13% to 43.52 %

Timor ; Sri Lanka)

The Leprosy Mission Canada

WORLD STATUS

- Proportion of **children**<15 yrs was **10.97%**(SEAR:3.67% in Thailand to 12% in Indonesia)
- Proportion of new cases with **grade2 disability** was **7.04%**(SEAR:3.08% In India to 14.9% in Myanmar)
- No. of relapses remained low at **1.52%**

SEAR:

- **58.8%** of global prevalence at the beginning of **2010**
- **67.8%** of all new cases in **2009**

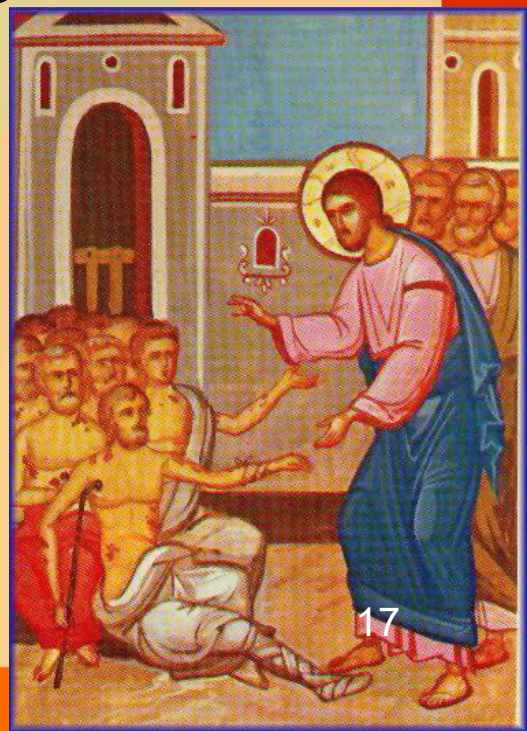
INDIA

Leprosy is widely prevalent in India;with uneven distribution

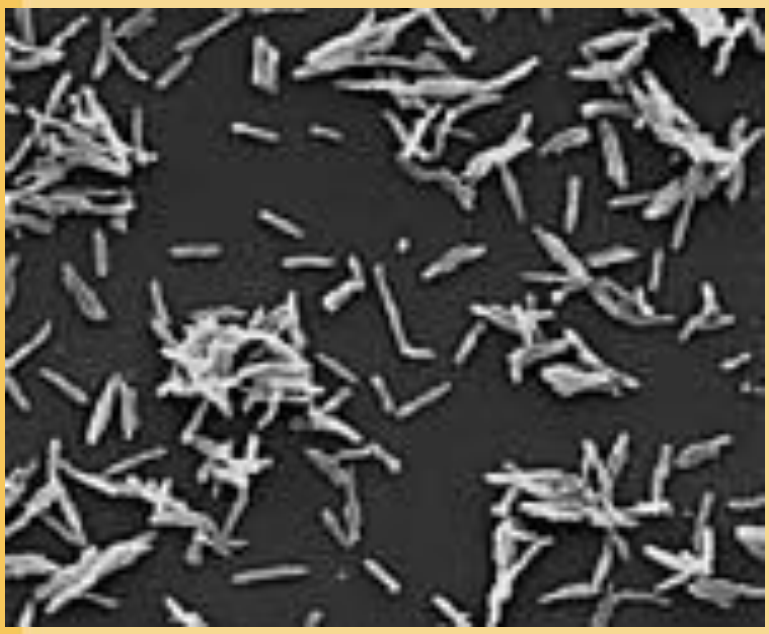
What is Leprosy?

- It is a chronic infectious disease
- characterized by lesions of the peripheral nerve, skin, and mucus membrane of the URT(nasal mucosa).
- World's oldest recorded disease

Every year January 27 is World Leprosy Day



What causes it?



- *Mycobacterium leprae*
- Rod Shaped
- First bacterium disease in humans

M. leprae is discovered by Hansen from Norway in 1873

- Leprosy develops slowly from **6months up to 40 yrs**

- Results in skin lesions and deformities, most often affecting the **cooler places on the body** (for example: eyes, nose, earlobes, hands, feet, and testicles) that can be very disfiguring.

MODE OF INFECTION

- Although human-to-human transmission is the primary source of infection, three other species can carry and **(rarely)** transfer *M. leprae* to humans: **chimpanzees, mangabey monkeys, and nine-banded armadillos.**

Mode of transmission

The exact rout of transmission is not fully known .

The spread of leprosy is believed to be via nasal discharge (Droplets infection).

Every 1 cc of nasal secretion contains 1- 2millions lepra bacilli

Other modes of transmissions

1. Contact through the skin (rare).
2. Arthropod-born infection (rare).
3. Through placenta and milk.

Signs and Symptoms

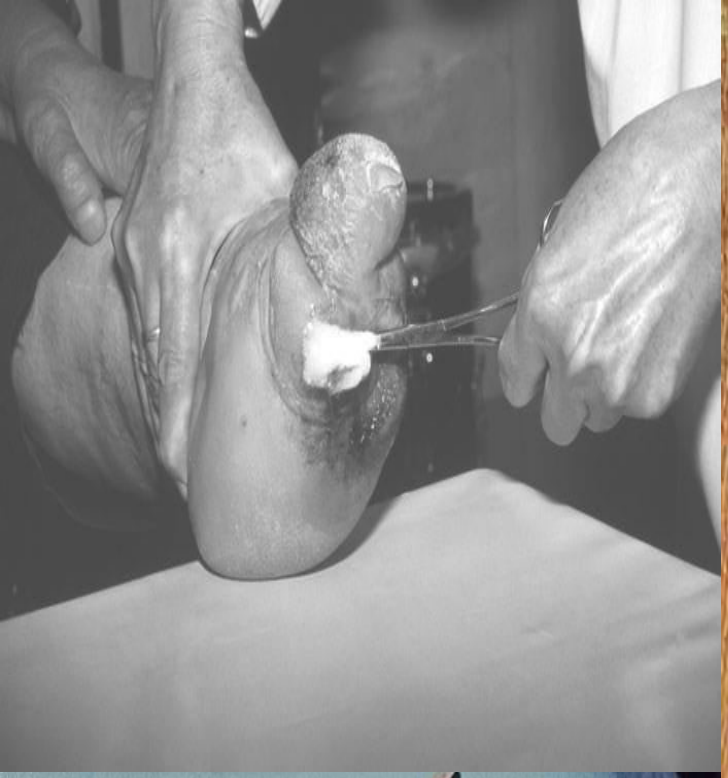
Early signs and symptoms of leprosy are very subtle and occur slowly (usually over years).

- **First symptoms** :
  - Numbness and loss of temperature sensation (cannot sense very hot or cold temperatures)
- **As the disease progresses** :
  - The sensations of touch, then pain, and eventually deep pressure are decreased or lost.

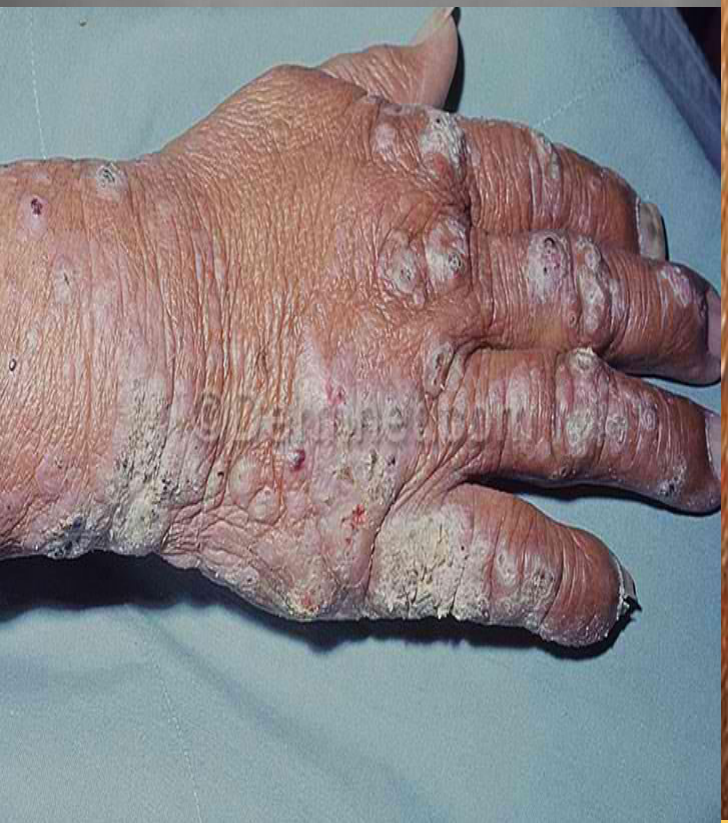
Long-term developing sequence of events

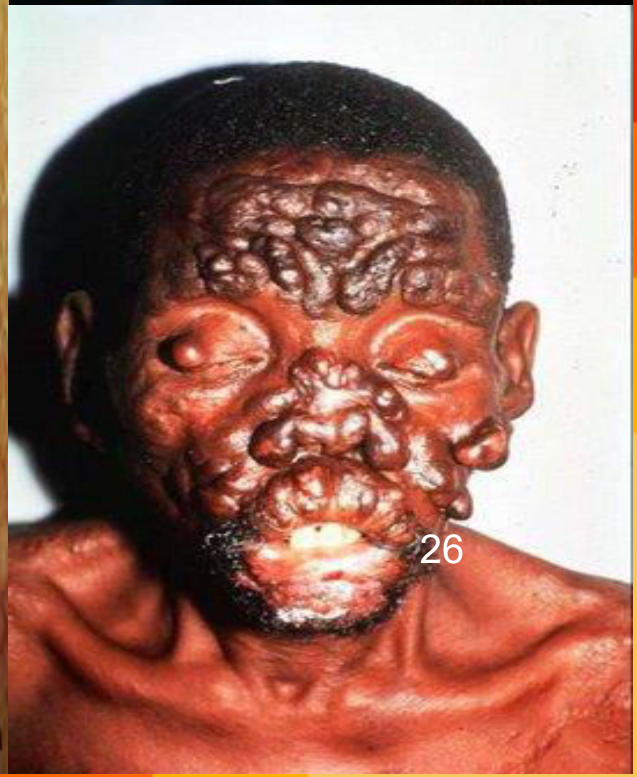
:

- Relatively painless ulcers, skin lesions of **hypopigmented macules** (flat, pale areas of skin), and eye damage (dryness, reduced blinking)
- Late stage: **large ulcerations, loss of digits, and facial disfigurement**. **(for example, hands, feet, face, and knees).**




© 1995, Dermatology, University of Iowa





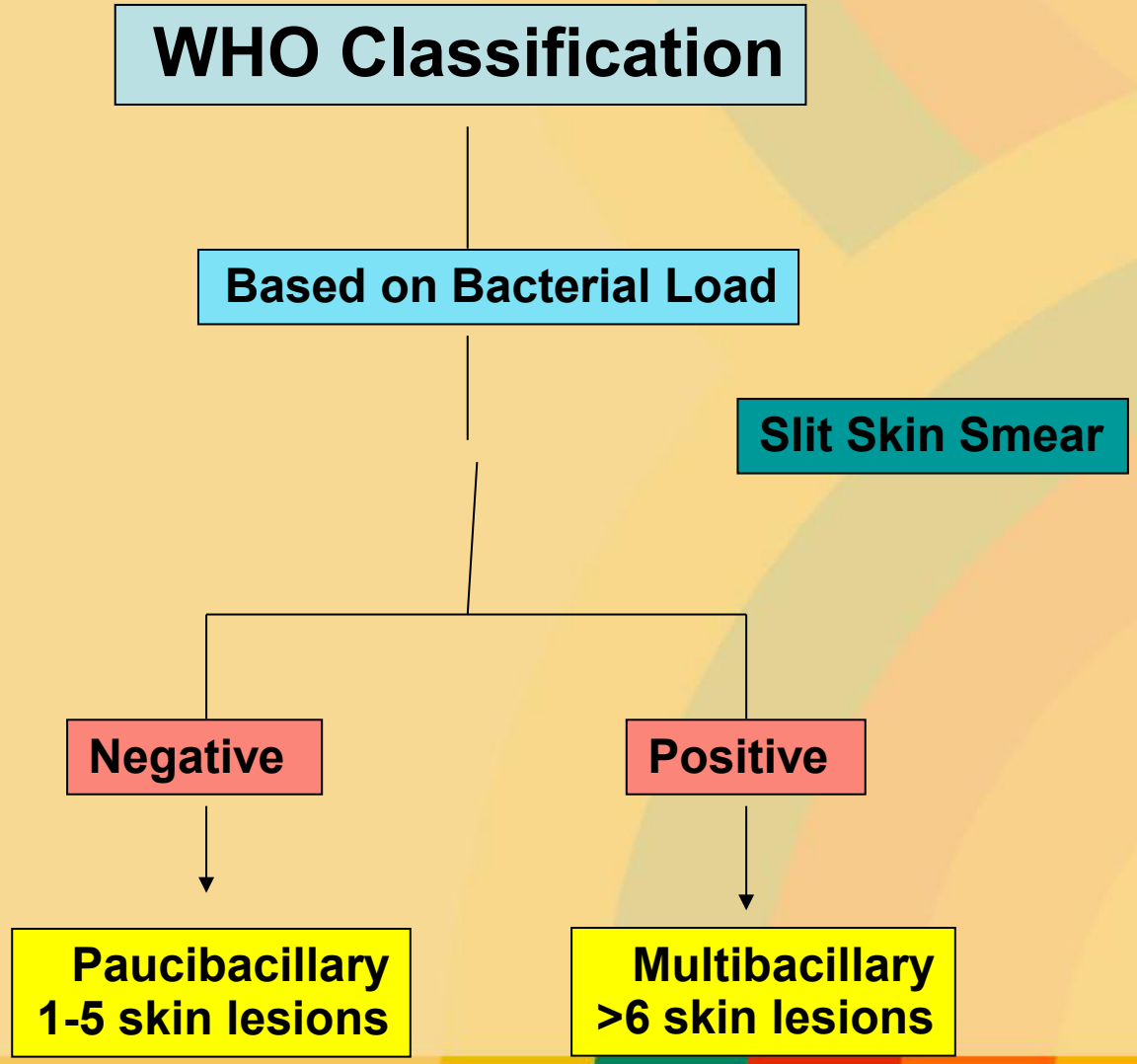
PREDISPOSING OR RISK FACTORS

1. Residence in an **endemic area.**
2. **Poverty** (malnutrition).
3. Contact with affected **armadillo.**
4. **Immunity**

(CONT.)

- The incubation period range from **3 -5 years.**
- **Males** appear to be **twice** common than females.
- Bimodal age (10-14years & 35-44 years).
- Children are more susceptible to disease.
- Genetic factors, e.g. **HLA markers** may determine the type of leprosy which the patient develops .

CLASSIFICATION & CLINICAL PRESENTATION



LEPROSY

Paucibacillary (PB)

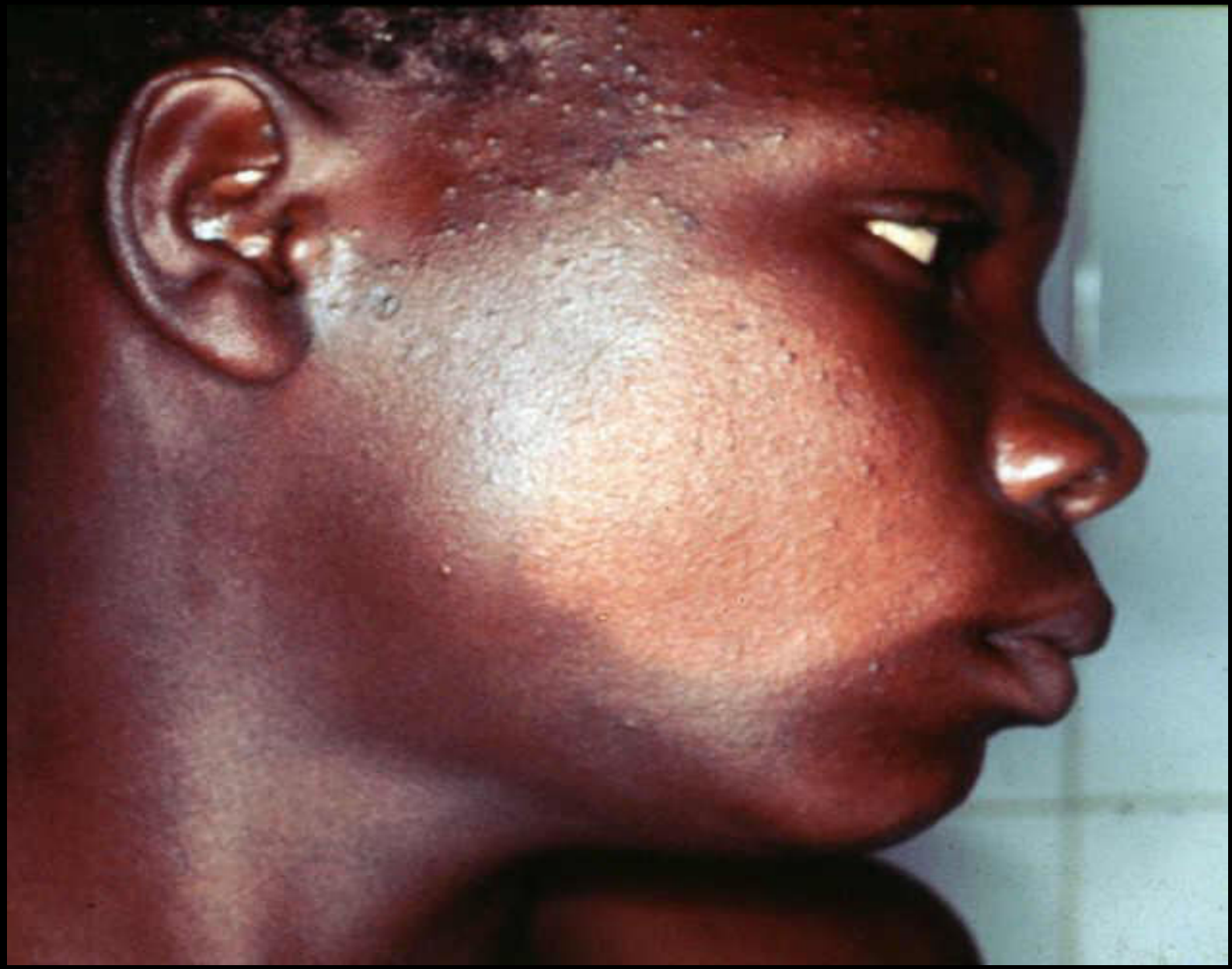
- Indeterminate Leprosy (IL)
- Tuberculoid Leprosy (TL)
- Borderline Tuberculoid (BT)

Multibacillary (MB)

- Borderline Borderline (BB)
- Borderline Lepromatous(BL)
- Lepromatous Leprosy (LL)

INDETERMINATE LEPROSY (IL)

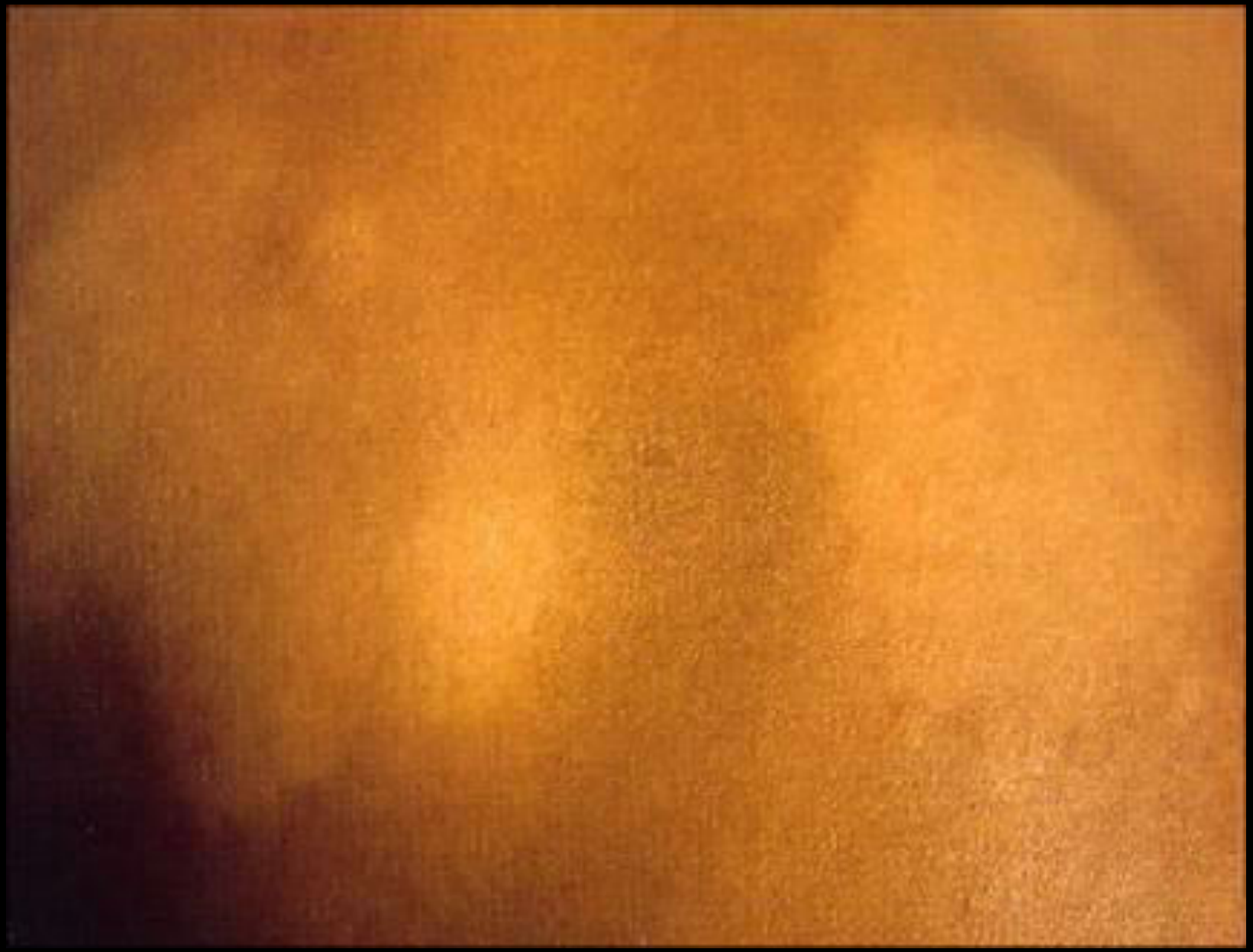
- Usually single (multiple) macule / patche.
- Hypopigmented or faintly erythematous.
- Sensation normal but sometimes imparied.
- The peripheral nerves normal.
- Slit skin smear negative.



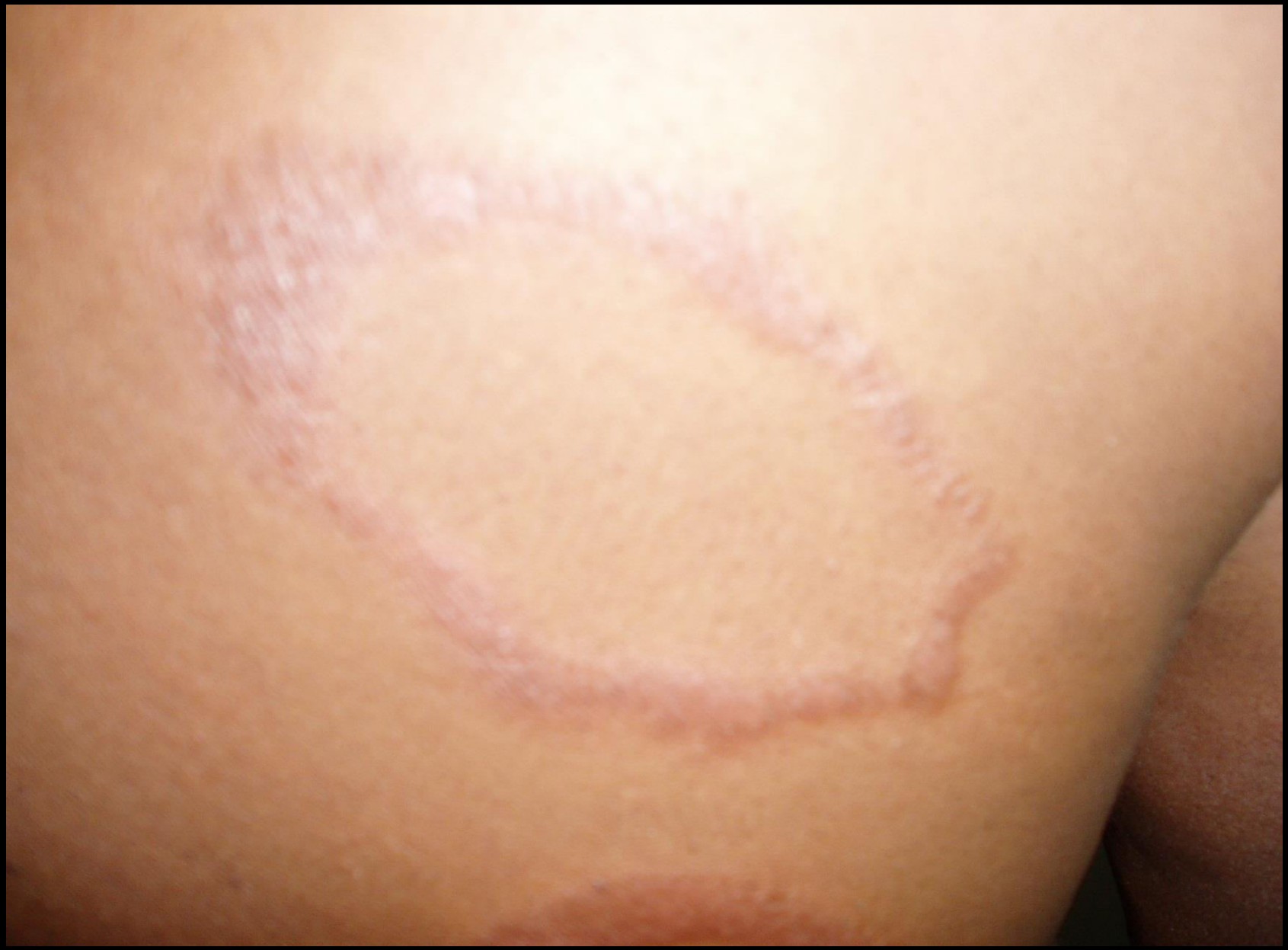
Indeterminate leprosy :Hypopigmented patch, sensation normal, no palpable peripheral nerve and slit skin smear negative.

TUBERCULOID LEPROSY (TL)

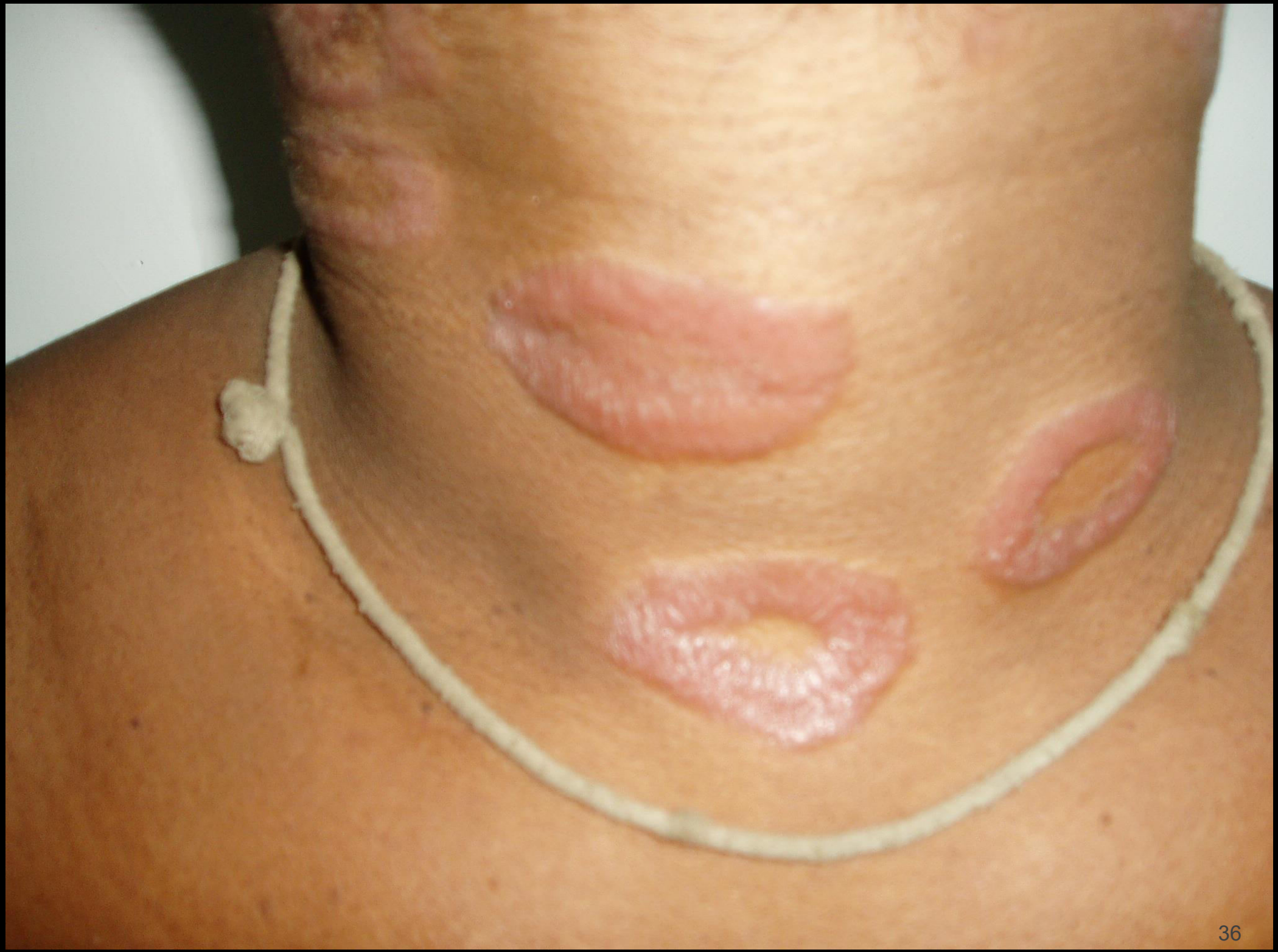
- Usually single but may be few (<5).
- Hypopigmented / erythematous plaque.
- Varying in size from few *mm* to several *cm*.
- Well defined borders.
- Sensation markedly imparied.
- Enlarged peripheral nerve.
- Slit skin smear negative



Tuberculoid leprosy: Two hypopigmented patches, hypoasthetic well defined borders, palpable peripheral nerve and SSS negative.



Tuberculoid Leprosy: Annular, erythematous, anasthetic patch with well defined and raised borders and SSS Negative.



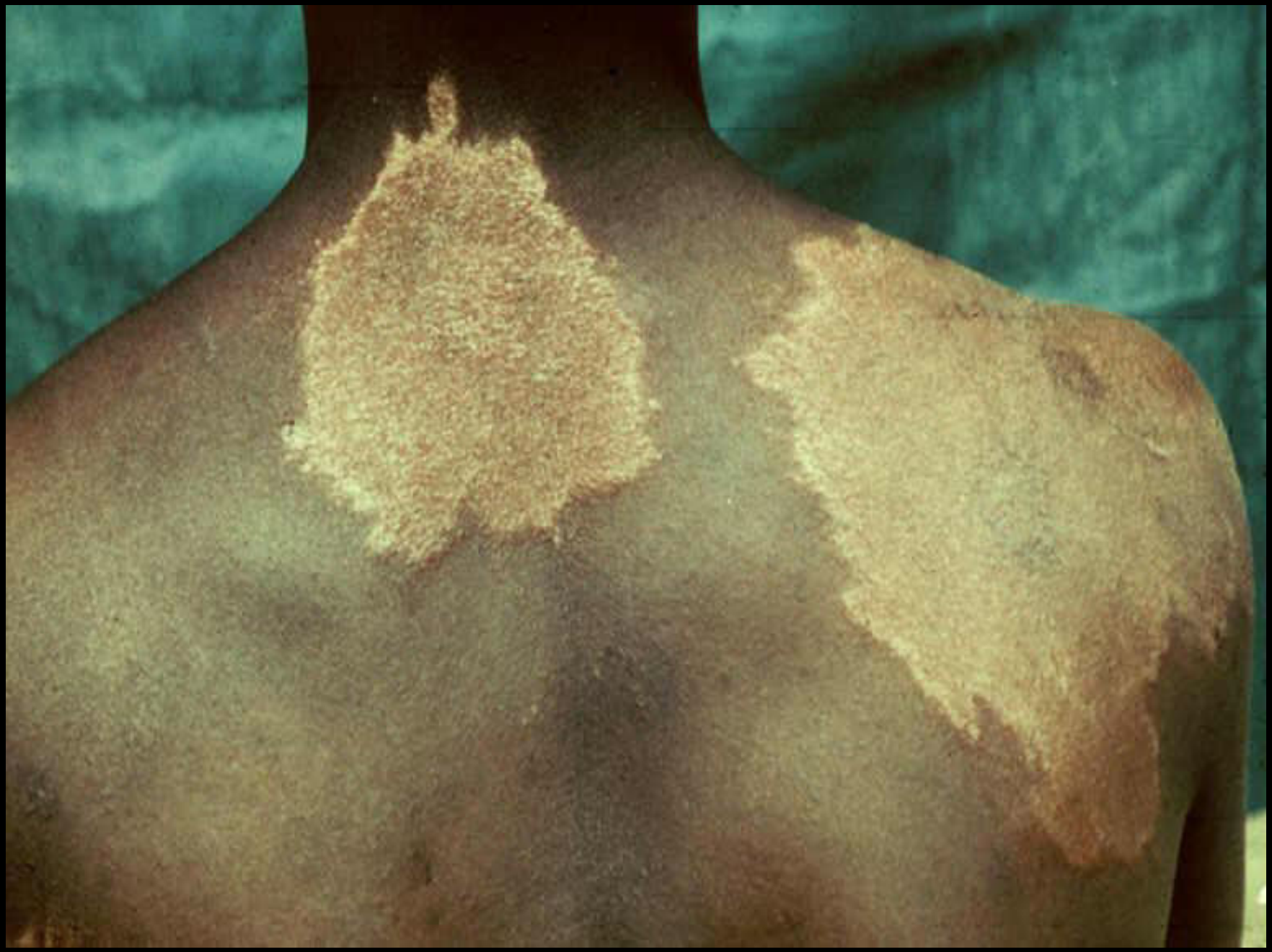
BORDERLINE LEPROSY

(BT,BB,BL)

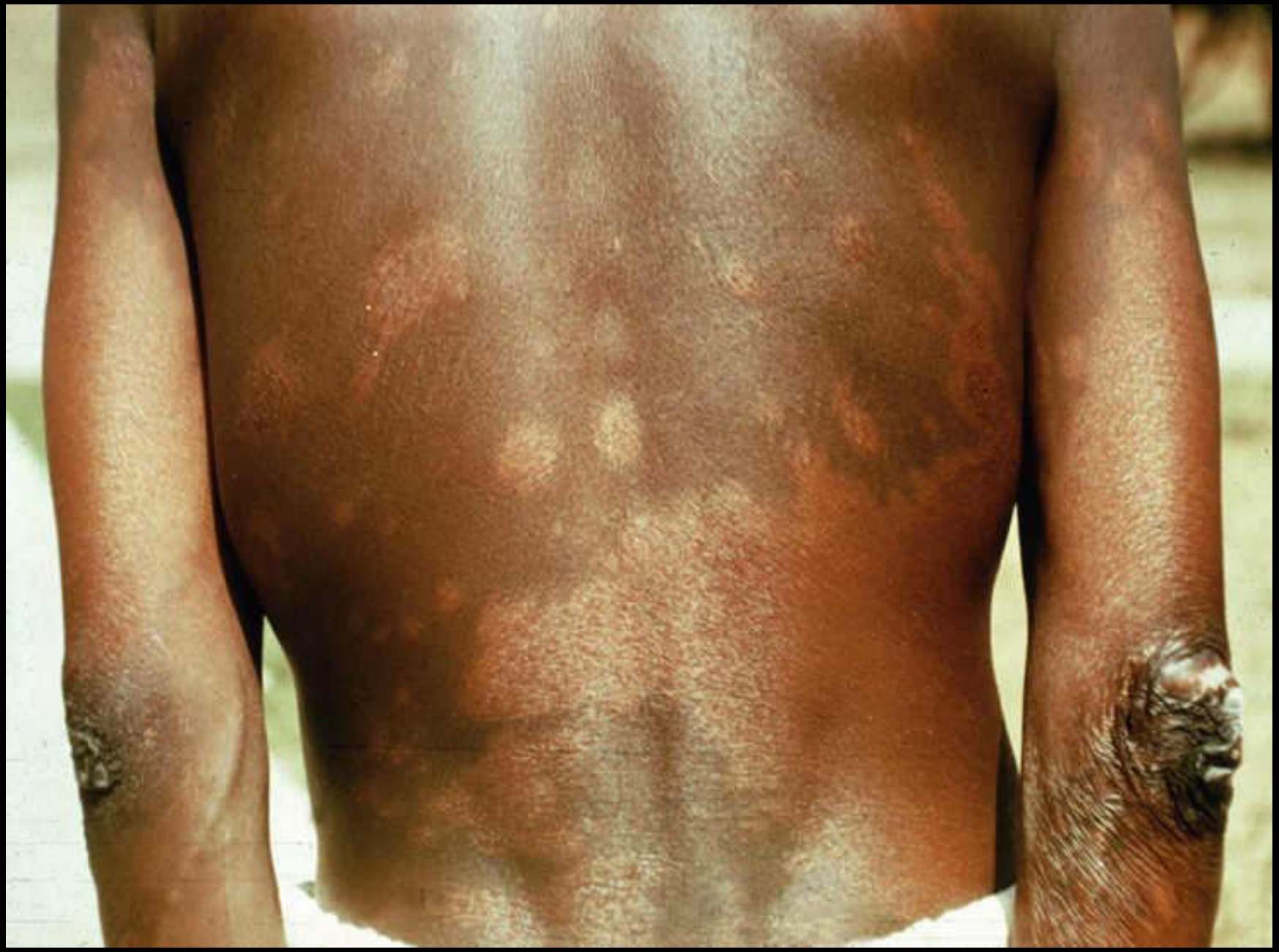
- Few / many asymmetrical patches.
- Partly well-defined borders.
- Sensory impairments range from slight to marked.
- Slit skin smear usually positive.
- P. nerves asymmetrically enlarged.

	BT	BB	BL
Lesion no.	Few(<5)	Some	Many
Lesions borders	Well	Less	Roughly
Sensory impairment	Marked	Moderate	Slight
Distribution of skin lesions	Asymmetrical	Asymmetrical	Roughly symmetrical
Peripheral nerves	Asymmetrical	Asymmetrical	Less asymmetrical
Type of leprosy	Paucibacillary	Multibacillary	Multibacillary
Slit skin smear	- / 1+	2+ / 3+	4+

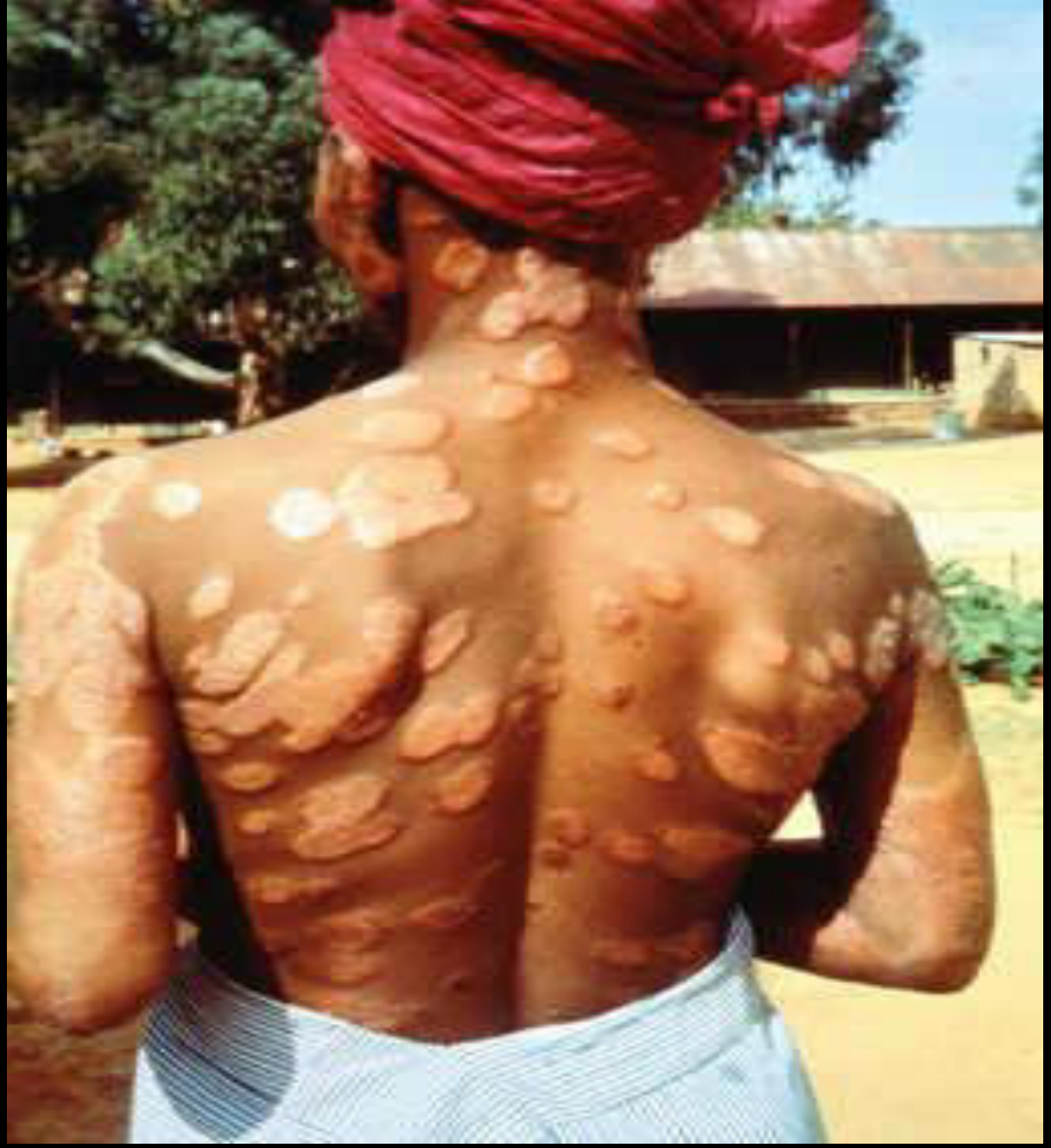
Note: Sometimes patients may have BT/BB or BB/BL or BL/LL



Borderline Tuberculoid Leprosy: Well-defined large anaesthetic patches with satellite lesions. SSS Negative.



Borderline Borderline Leprosy: Less defined, asymmetrically distributed hypoaesthetic patches. SSS positive.



Borderline Lepromatous Leprosy: Numerous, hypoaesthetic almost symmetrically distributed patches . SSS positive.

LEPROMATOUS LEPROSY (LL)

- Very numerous ill defined lesions. (macules, patches, papules,and nodules).
- Symmetrically distributed allover the body
- Loss of eyebrows and eyelashes.
- No sensory impairments in lesions .
- Peripheral nerves symmetrically enlarged.
- Slit skin smear always positive.

Diagnosis of Leprosy

1. Clinical Examination.
2. Slit Skin Smear.
3. Skin Biopsy.

1.CLINICAL EXAMINATION:

What are the cardinal skin signs of leprosy ?

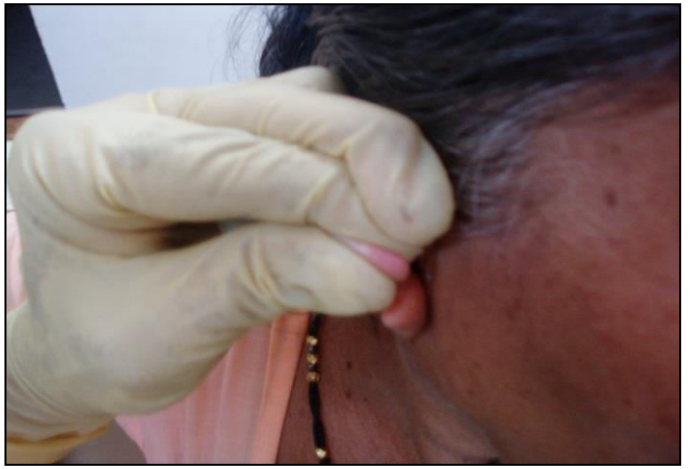
1. Hypopigmented or erythematus patch / plaque
2. Complete / partial loss of sensation.
3. Thickening of peripheral nerves.

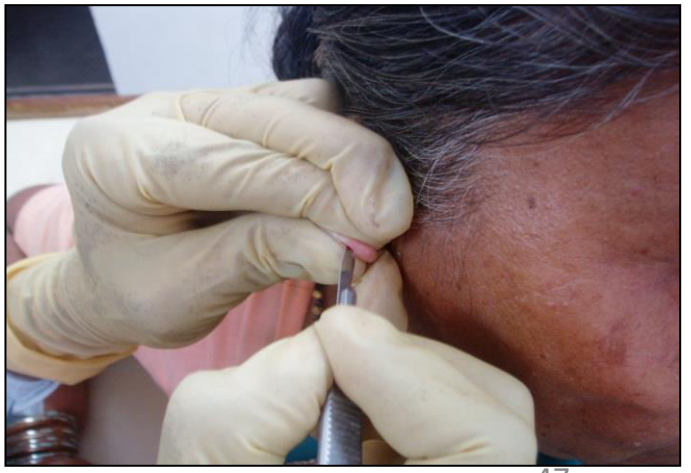
2.SLIT SKIN SMEAR

- Simple and valuable test.
- It is needed for diagnosis.
- Monitor the progress of the treatment.

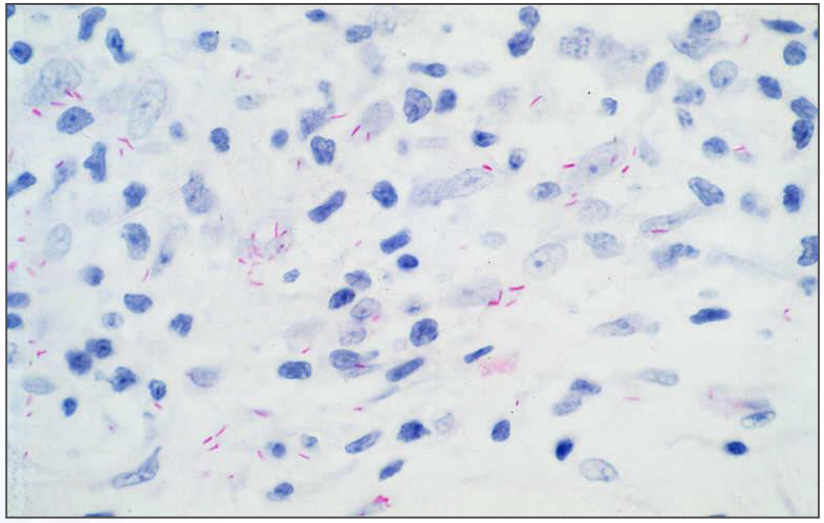
SLIT SKIN SMEAR (METHOD).

- Pinch the site tight.
- Incise.
- Scrape & collect material
- Smear on a slide.
- Air dry & fix.
- Stain (Z-N method)





SLIT SKIN SMEAR (REPORTING THE SMEAR).



(Ridley's logarithmic scale)Bacteriological index

0 – no bacilli in 100 fields

1+: 1-10 bacilli in 100 fields

2+: 1-10 bacilli in 10 fields

3+: 1-10 bacilli in 1 field

4+: 10-100 bacilli in 1 field

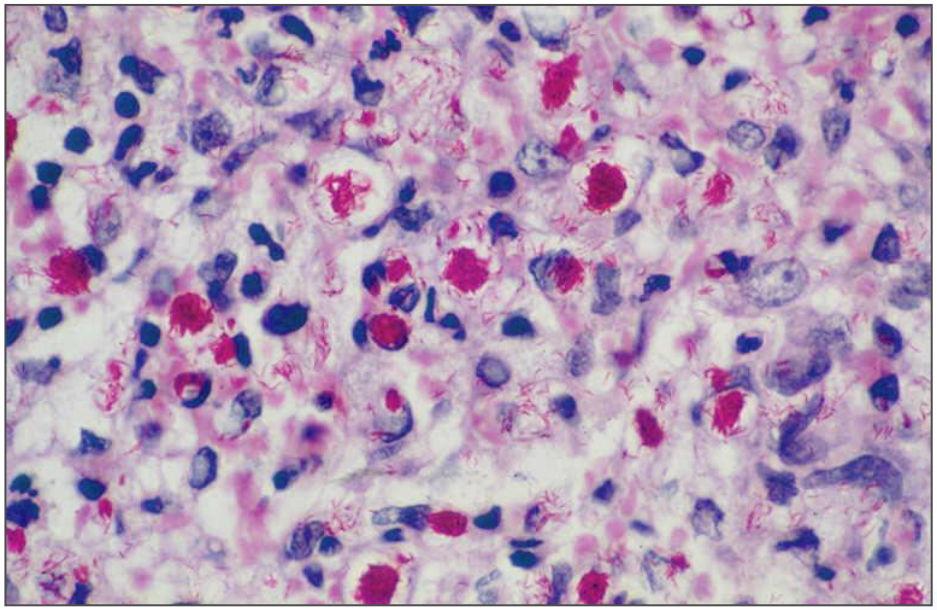
5+: 100-1000 in 1 field

6+: >1000 bacilli field (globi).

- BI is calculated by adding up the index from site examined and dividing by the total number

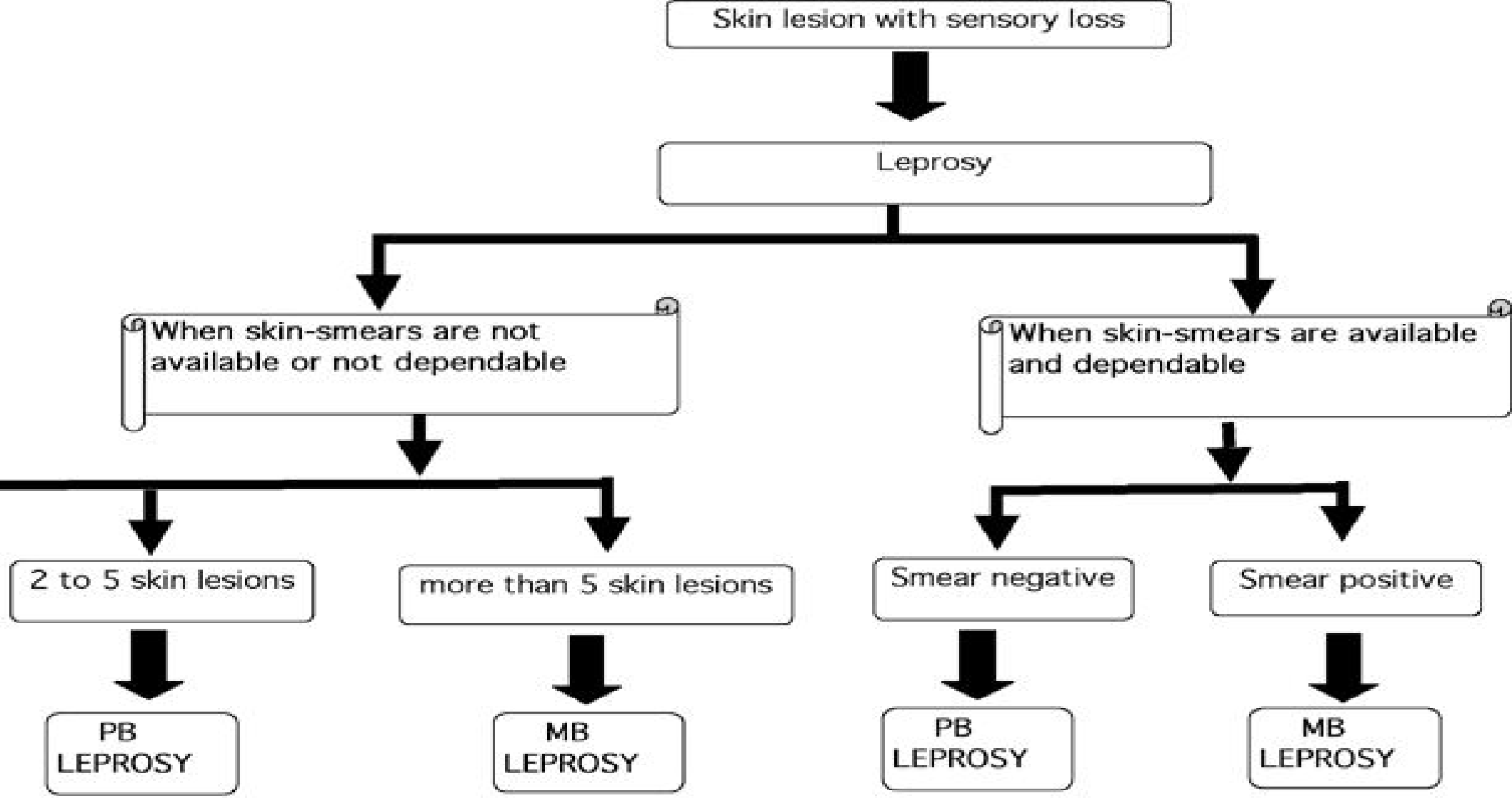
Morphological index

- The percentage of living bacilli(solid staning bacilli) to the total number of bacilli in the smear.



OTHER SMEAR TECHNIQUES

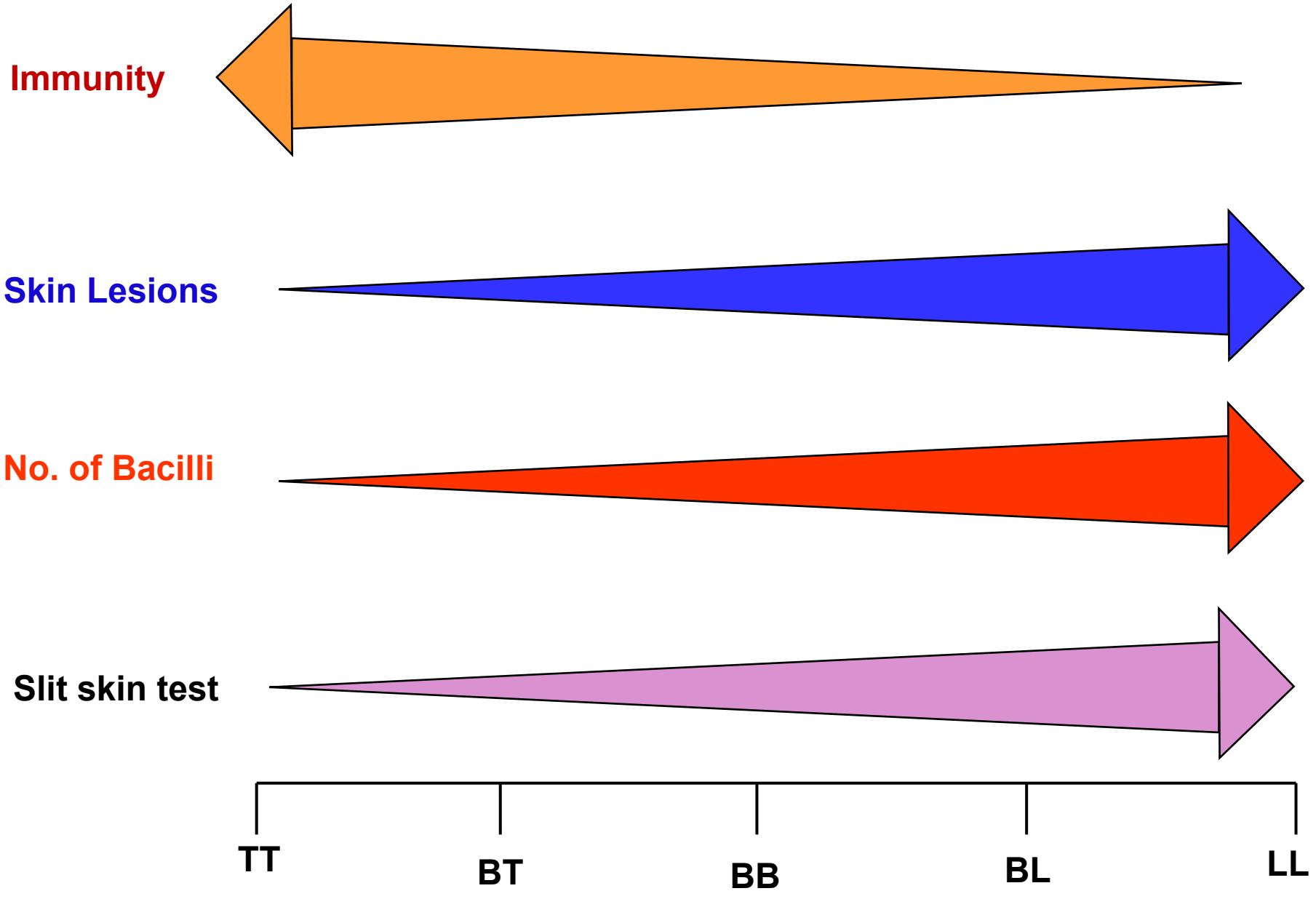
- Nasal smear
- Nasal scrapings



Flowchart of Diagnosis and Classification

7th WHO Expert Committee on Leplosy June 1997

Clinical spectrum of leprosy



SKIN BIOPSY

TUBERCULOID LEPROSY (TT).

- Histologically TT **resemble tuberculosis.**

- Characterized by **tuberculoid granuloma**, made up of **epitheloid cell** in the center surrounded by abundant **Langhans** giant cells, **lymphocytes** and foci of **caseating necrosis.**

- **No acid-fast bacilli**

LEPROMATOUS LEPROSY (LL)

- Characterized by diffuse infiltration of **foamy macrophages in the dermis.**
- **Acid-fast bacill are present** inside these foamy cells eighter singly or in globi.
- There is free subepidermal zone (**grenz zone).**
- Lymphocytes are scanty and **giant cells typically absent.**

Other tests:

- Histamine test: for the diagnosis of indeterminate leprosy

- Immunological tests
  - Test for detecting CMI
  - Test for detecting antibobies

Test for detecting CMI

- Lepromin skin test :
  - –To differentiate the two different forms of leprosy apart, but it is not used to diagnose the disease
  - –Because:false negative and false positive

Lepromin Skin Test

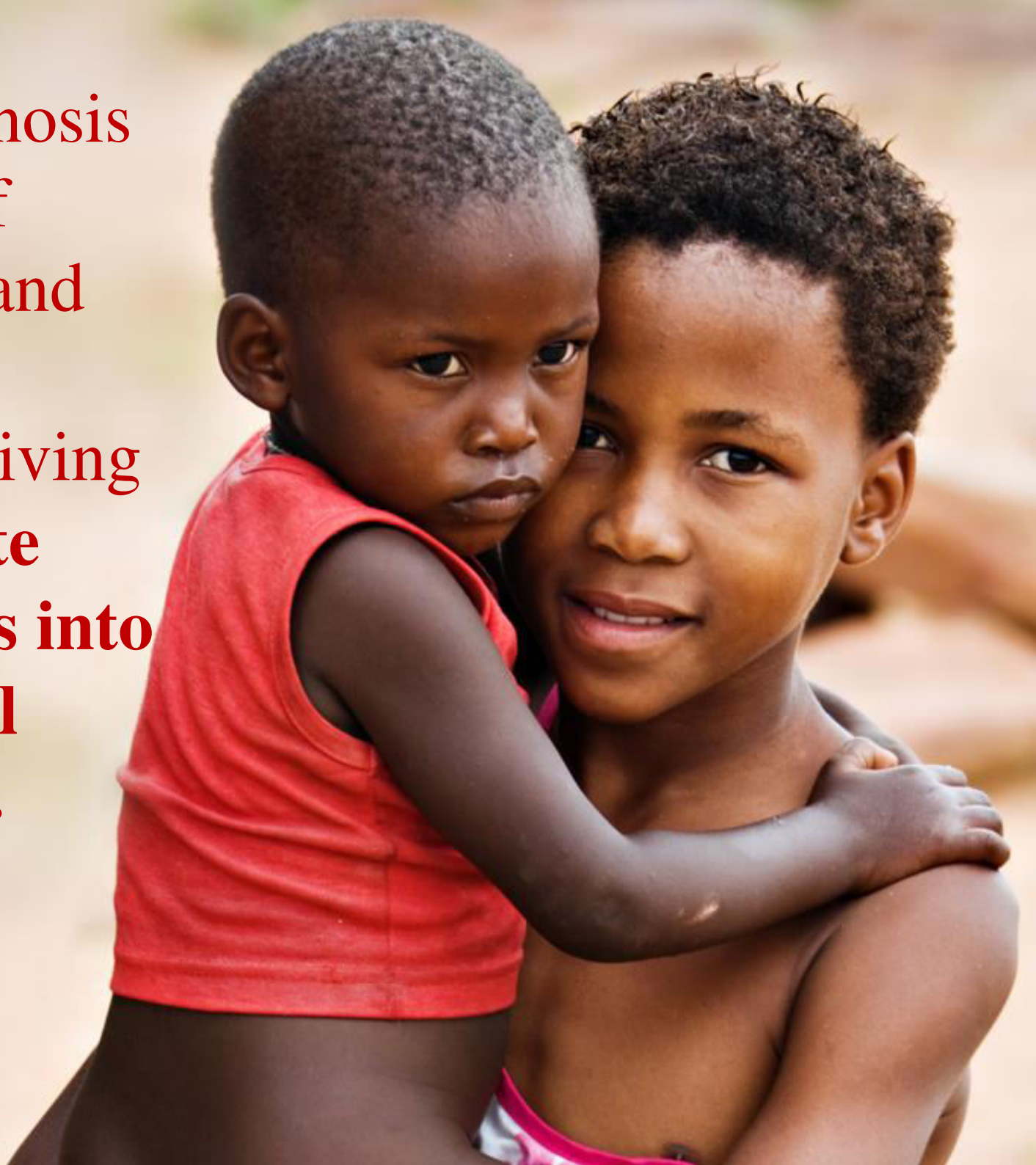
- **Procedure to Lepromin Skin Test**
  - A tiny sample of leprosy antigen is injected under the skin, usually in the forearm.
  - The skin gets pushed up, forming a small bump.
  - This is an indication that the antigen has been injected to the correct depth.
  - The site of the injection is marked, and is examined for reaction, **first after 3 days(early reaction-Fernandez reaction:-redness and induration) and then again after 21 days(late reaction-Mitsuda reaction:-nodule>5mm).**

Test for detecting antibobies

1. Fluorescent leprosy antibody absorption test(FLA-ABS test):-
   - ✓ Now widely used for identification of subclinical cases
   - ✓ 92.3% Sensitive & 100% specific
2. Monoclonal antibodies
3. ELISA


TREATMENT

Today, the diagnosis and treatment of leprosy is **easy** and most endemic countries are striving to fully **integrate leprosy services into existing general health services.**



LEPROSY IS A CURABLE DISEASE

Drugs used in Leprosy treatment

What are the three commonly used drugs?

1. Dapson.
2. Rifampicine.
3. Clofazimine.

The combination of these three drugs is known as Multi Drug Therapy (MDT)

HISTORY OF TREATMENT

- In 1941, **promin**, a sulfone drug, showed efficacy but required many painful injections.
- **Dapsone** pills were found to be effective in the 1950s
- But soon (1960s-1970s), *M. leprae* **developed resistance** to dapsone.
- . In the early 1960s, Rifampicin and clofazimine, the other two components of MDT, were discovered.
- This **multi-drug treatment (MDT)** was recommended by the WHO in **1981** and remains, with minor changes, the therapy of choice.

- Since **1995, WHO provides free MDT** for all patients in the world
- NB: MDT, however, **does not alter the damage** done to an individual by *M. leprae* before MDT is started.

- **MDT (Chemotherapy) renders Leprosy patients non-infectious.** after three months of continuous treatment with dapsone or clofazimine, or after two to three weeks of treatment with rifampicin.

MDT for PB leprosy 6 months

Monthly dose Rifampicin 600mg

Daily dose Dapsone 100 mg

Multidrug Therapy (MDT) for Paucibacillary Leprosy (PB)

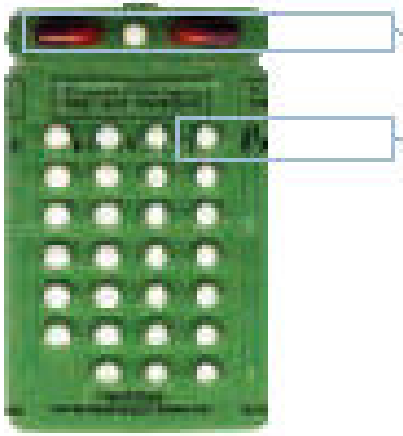
MDT for MB leprosy 12 months

Monthly dose
Rifampicin 600mg
Clofazimine 300mg

Daily dose
Dapson 100mg
Clofazimine 50 mg

Multidrug Therapy (MDT) for Multibacillary Leprosy (MB)

Multi Drug Therapy



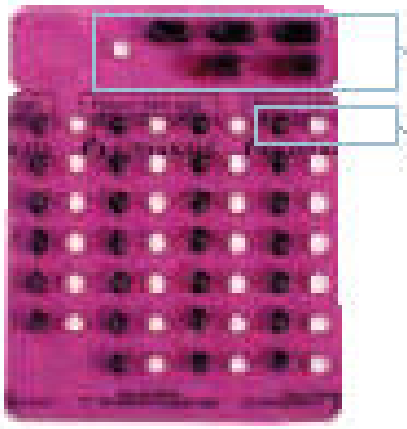
PB adult blister pack

PB adult treatment:

Once a month: Day 1
– 2 capsules of rifampicin (300 mg X 2)
– 1 tablet of dapsone (100 mg)

Once a day: Days 2–28
– 1 tablet of dapsone (100 mg)

Full course: 6 months



MB adult blister pack

MB adult treatment:

Once a month: Day 1
– 2 capsules of rifampicin (300 mg X 2)
– 3 capsules of clofazimine (100mg X 3)
– 1 tablet of dapsone (100 mg)

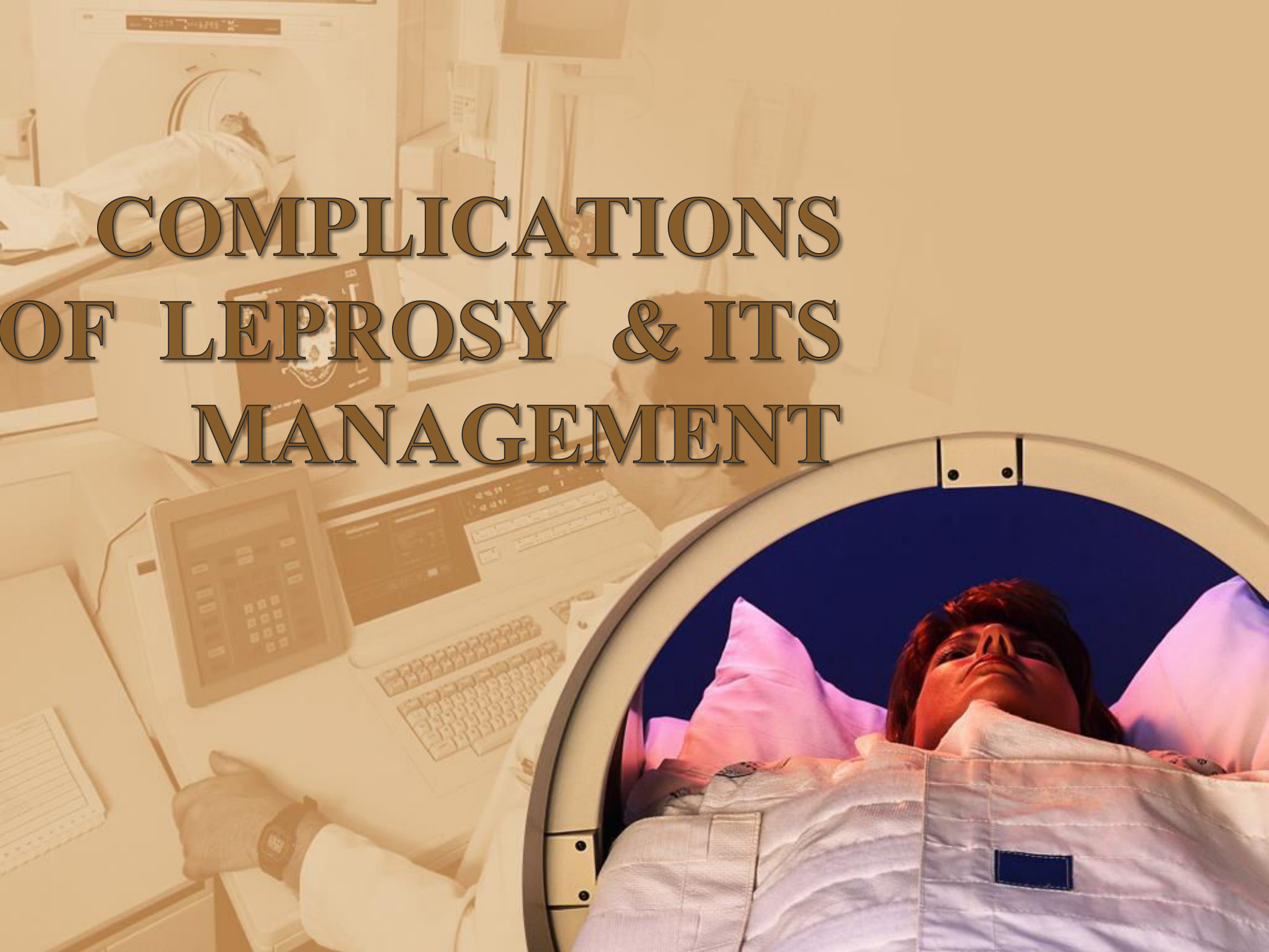
Once a day: Days 2–28
– 1 capsule of clofazimine (50 mg)
– 1 tablet of dapsone (100 mg)

Full course: 24 months

OTHER DRUGS :-

- Ethinamide and protionamide
- Quinolones
- Minocycline
- Clarithromycin

COMPLICATIONS OF LEPROSY & ITS MANAGEMENT



COMPLICATION CAN BE CATEGORISED AS:

1) LEPRA REACTION

2) ADVERSE EFFECT OF ANTI-LEPROTIC DRUGS

3) DISABILITIES & DEFORMITIES

4) PSYCHO-SOCIAL PROBLEMS

- **LEPRA REACTION:**

✓May occur before/during/after MDT.

✓Not caused by MDT.

✓Type1 (Reversal reaction)

✓ Type2 (ENL)

Type I	Type II
•Change in host CMI •Seen in borderlines •Skin and nerve lesions	•Antigen antibody •Seen in LL & BL leprosy •Skin, nerve & systemic involvement

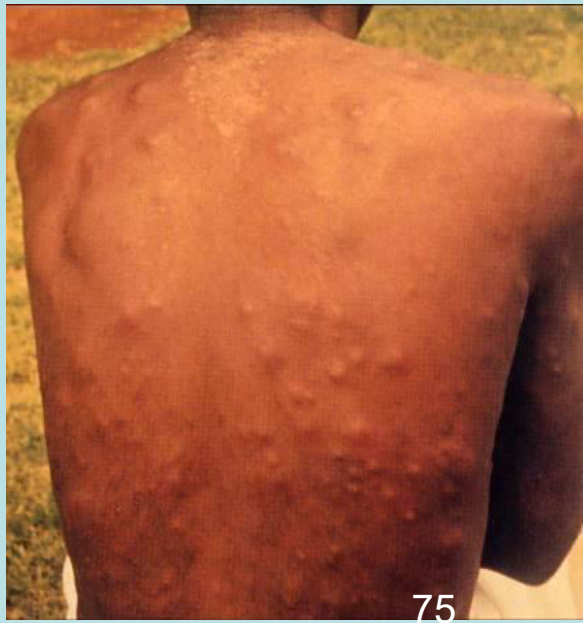
LEPRA REACTION

Treat 'Reaction' as a Medical Emergency:

- Rest & Analgesics
- DOC-Prednisolone(40-60 mg)
- Taper gradually over 12-16 wks.
- All need a detailed Neuromuscular assessment by a physiotherapist.

ERYTHEMA NODOSUM LEPROSUM(ENL)

- Erythematous.Tender .Subcutaneous.
- Resolve in 7 to 10 days.
- Associated with fever & joint pains.
- May be vesicular, pustular & may ulcerate
- Treatment:with CLOFAZIMINE



ADVERVE EFFECT OF ANTI-LEPROTIC DRUGS:

DRUGS	MINOR	MAJOR
1. RIFAMPICIN	RED URINE	JAUNDICE
	GIT UPSET	HEPATITIS
	FLU LIKE SYNDROME	SHOCK
2. DAPSONE	GIT UPSET	DAPSONE SYNDROME
	DRUG RASH	AGRANULOCYTOSIS
	ANAEMIA	HEMOLYTIC ANAEMIA
3. CLOFAZIMINE	GIT UPSET	ACUTE PAIN ABDOMEN
	DISCOLOURATION OF SKIN	
	ICHTHYOSIS	

DISABILITIES

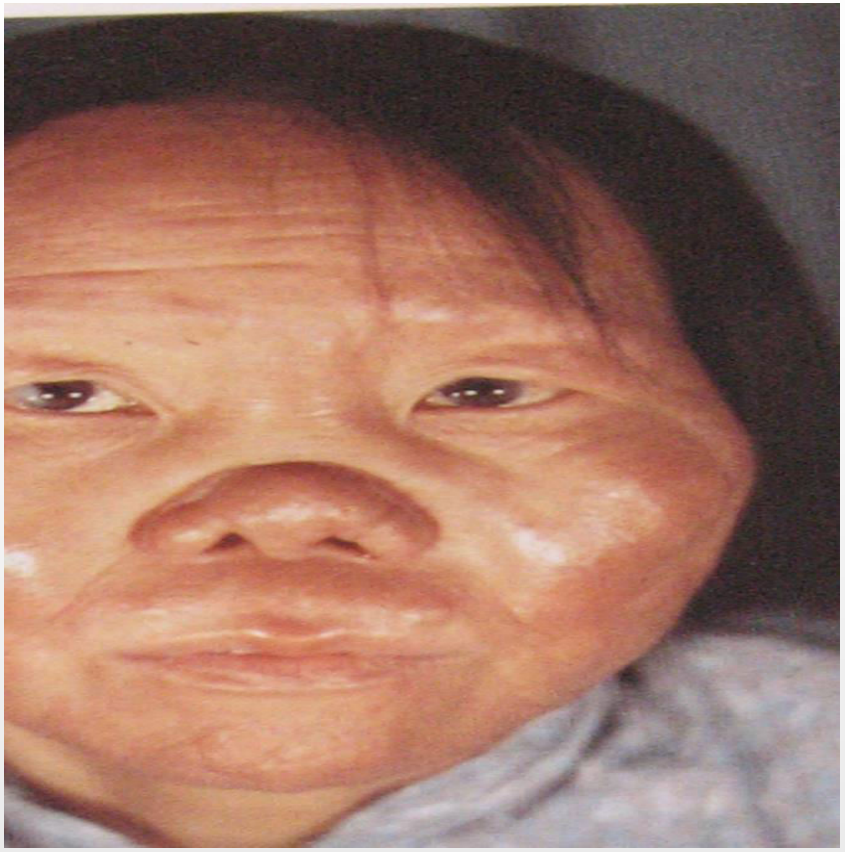
- Disabilities such as **loss of sensation** and **deformities** of hands/feet/eyes occur because:
  - **Late diagnosis** and late treatment with MDT
  - Advanced disease (MB leprosy)
  - Leprosy reactions which **involve nerves**
  - Lack of information on how to protect insensitive parts

Only about **10-15%** of leprosy affected person develop significant deformities and disabilities.

TYPES OF DEFORMITIES:

1) Specific deformities:

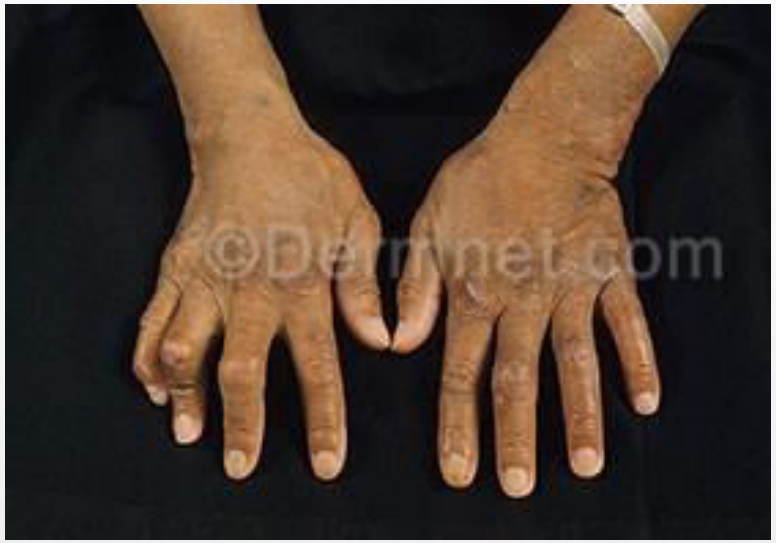
- b/c of **local infection** with M.Leprae
- seen most often in the face; facies leprosa(loss of eyebrow,nasal deformity), gynecomastia,less often in the hand and only occassionly in the feet.



2) Paralytic deformities:

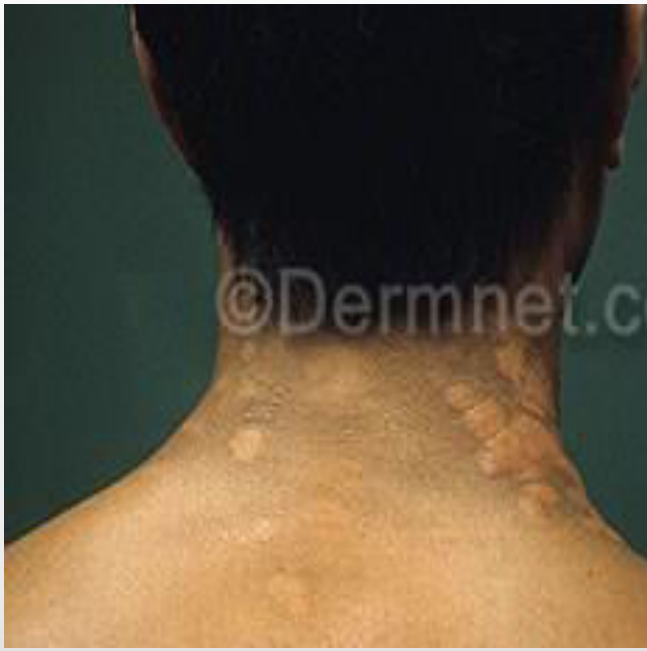
- result from **damage to motor nerve**.

-seen most often in the hand(claw finger),less often in the feet &occassionly in the face(lagopthalomos,facial palsy)



3)Anesthetic deformity :

- Occur as a consequence of neglected injuries in part rendered insensitive b/c of **damage to sensory nerve.**



- Found most often on the feet and hand(ulceration,scar contrature,shortening of digits,&skeletal disorganization of foot)

WHO GRADING OF DISABILITIES IN LEPROSY

	WHO Grade 0	Grade 1	Grade 2
EYES	Normal vision,lid gap,blinking.	Corneal reflex weak	Reduced vision,lagophthalmos.
HANDS	Normal sensation & m.power.	Loss of feeling in the palm	Visible damage:wounds, claw hand,loss of tissue etc.
FEET	Normal sensation & m.power.	Loss of feeling in the sole	Visible damage:wound,foot drop,loss of tissue.

Peripheral nerves

Sensory

Hypoaestesia / anaestesia

Ulcers

Motor

Muscle paralysis

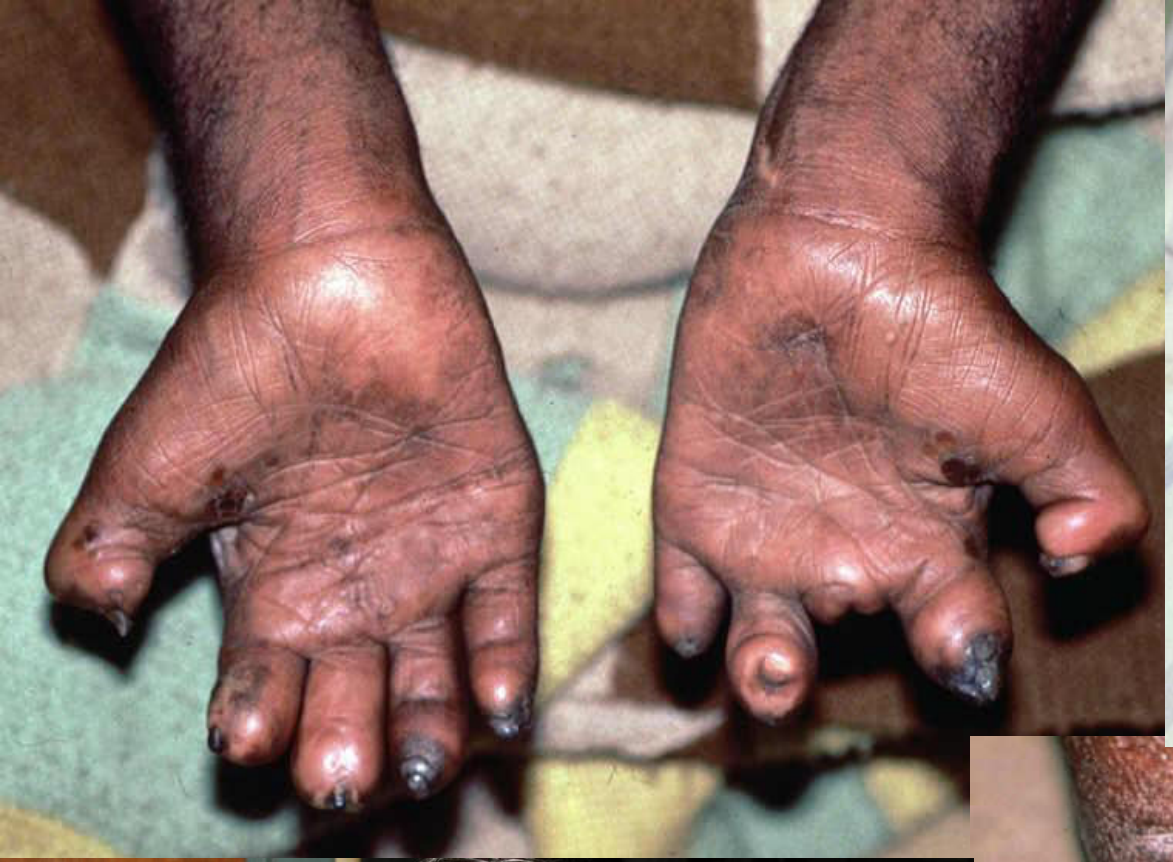
Ulnar nerve	Claw hand
Radial nerve	Wrist drop
Lt. popliteal	Foot drop
Post. tibial	Claw toes
Facial	lagophthalmous

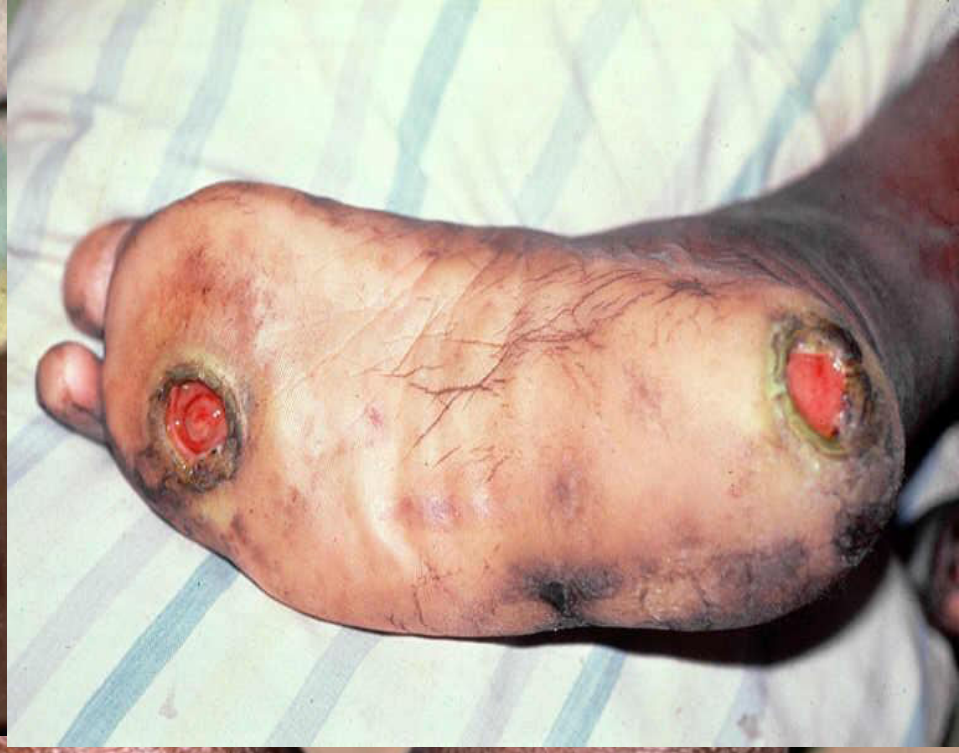
Autonomic

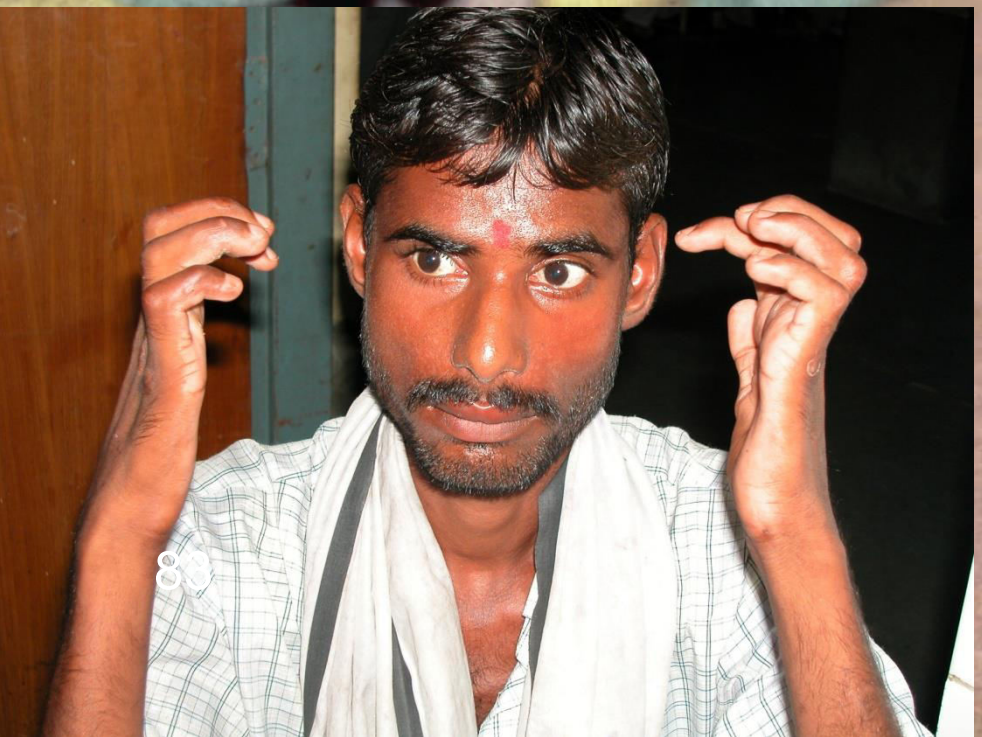
Lack of sweating & sebum

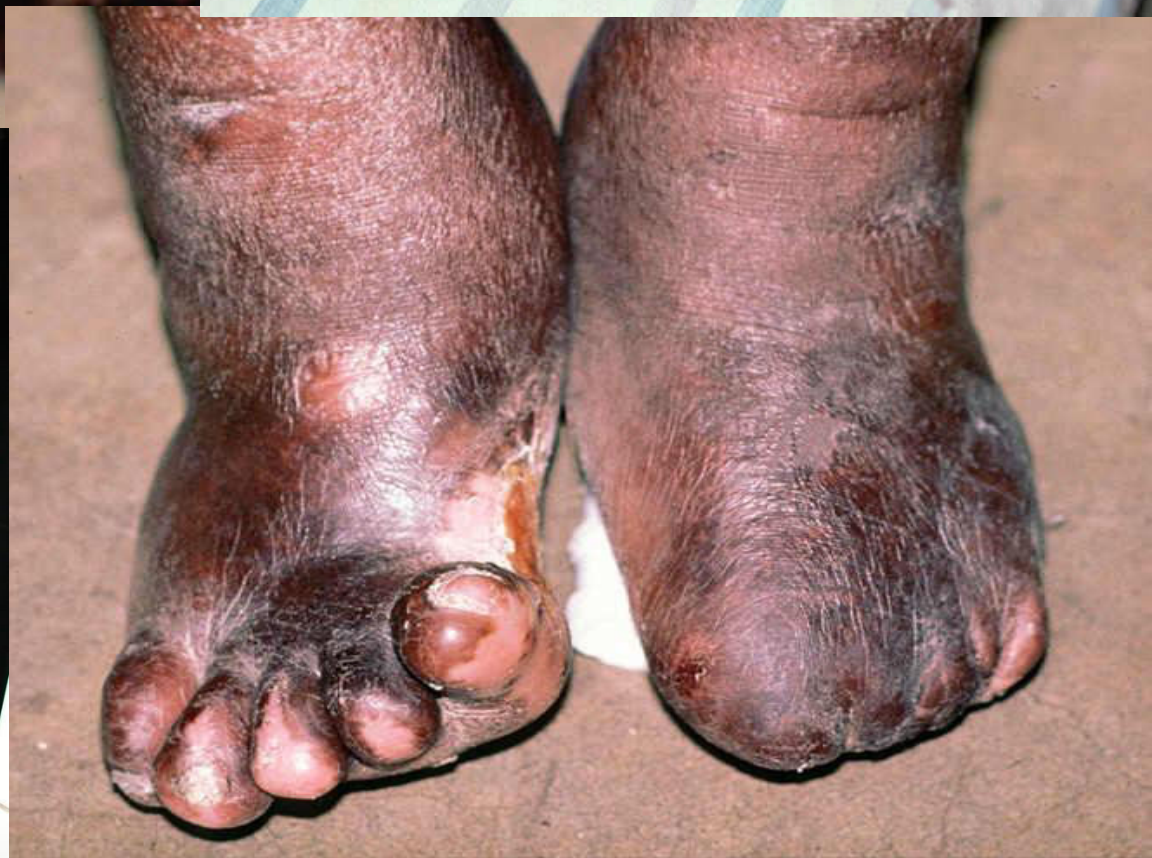
Dry skin
Cracked skin

Ulcers





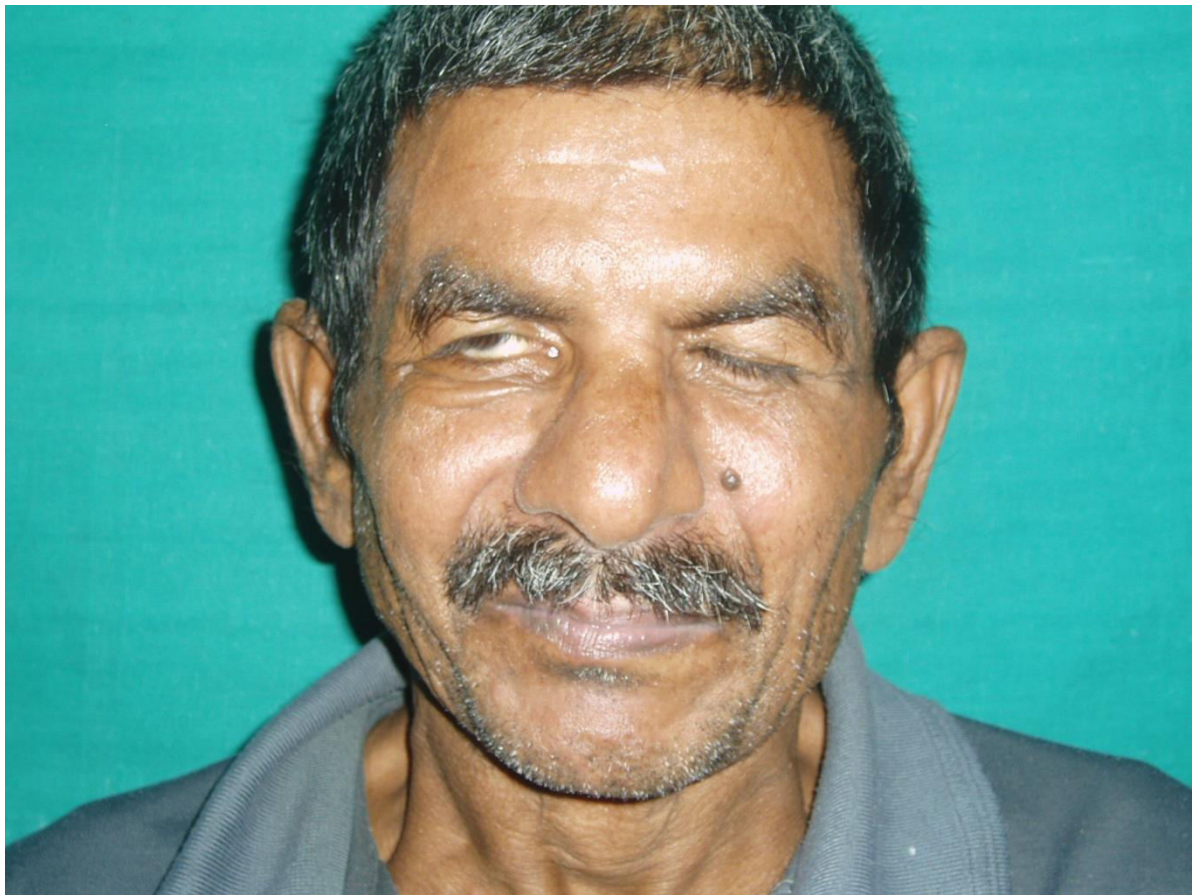




FOOT AND HAND CARE PRACTICE

- Infected ulcer/Cracks
  - Clean with soap & water
  - Rest & apply antiseptic dressing
  - Apply cooking oil/Vaseline
- Wounds/injury
  - Soak in water
  - Clean and apply clean bandage
  - Protect when working/cooking
- weakness/paralysis
  - Oil massage
  - Exercises

COMPLICATIONS OF EYE



Involvment of the ophthalmic division of the (5th.) trigeminal nerve

↓

Corneal sensation imparment

↓

Patients ignore injuries

↓

keratitis, conjunctivitis and ulcers

↑

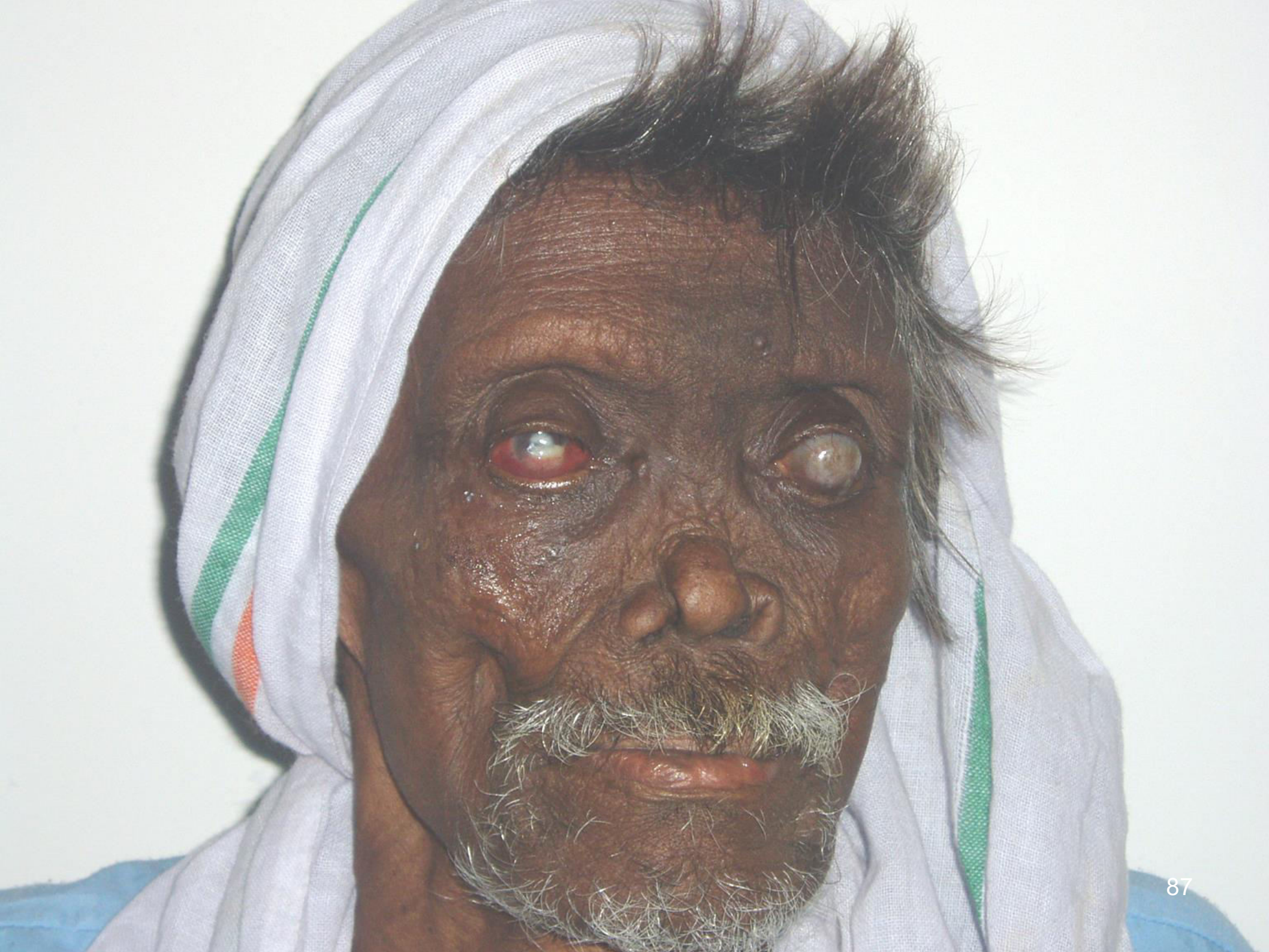
Unable to close the eye (unbliking stare)

↑

Lagophthalmos

↑

Involvment of zygomatic & temporal braches of the (7th.) facial nerve.



CARE OF EYES

• **Redness and pain**	• Aspirin or paracetamol • Atropine and steroid ointment
• **Injury to cornea**	• Cover with eye pad • Apply antibiotic ointment • Refer
• **Difficulty in closing eye**	• Tear substitute eye drops • Exercises • Dark glasses to protect • Refer

PSYCHO- SOCIAL PROBLEMS

-are related to widely held **beliefs and prejudices** concerning leprosy & its causes.

-they often develop self stigma,low self esteem & **depression** as a result of rejection and hostility,

-need to be referred for **proper counselling.**

LEPROSY CONTROL

Methods of Control

- **Medical methods**
  - Estimation of problem
  - Early detection
  - Multi drug therapy
  - Surveillance
  - Immunoprophylaxis
  - Chemoprophylaxis
  - Deformities
  - Rehabilitation
  - Health education
- **Social support**
- **Programme management**
- **Evaluation**

Rehabilitation

- Community based rehabilitation is recommended by WHO
- Is a strategy within general community development for the rehabilitation, equalization of oppurtunities and social inclusion of all people with disabilities.

Surveillance

- For PB; clinically at least once a year for 2 years after treatment
- For MB; at least once a year for 5 years after treatment

Evaluation

i. **Epidemological indicators**
   - Incidences
   - Prevalence

ii. **Main or core indicators for monitoring progress**
   - No. and rate of new cases detected per year
   - Rate of new cases with grade2 disabitities per 10,000 population
   - Treatment complexion/cure rate

Evaluation(continued)

iii. Main indicators for evaluating case detection

- Proportion of new cases presenting with grade 2 disabilities/impairements
- Proportion of child(<15yo) cases among new cases
- Proportion of female cases among new cases
- Proportion of MB cases among new cases

Evaluation(continued)

- iv . **Main indicators for assessing the quality of services**
  - Proportion of new cases verified as correctly diagnosed
  - Proportion of treatment defaulters
  - No. of relapses
  - Proportion of patients who develop new/additional disabilities during MDT.

WHO Enhanced Global Strategy 2011 – 2015

- Early case detection and treatment
- Prevention of disability
- Community based rehabilitation
- Priority: equality, human rights
- Monitor the threat of drug resistance

MILESTONES OF NLEP IN INDIA

Evolution of NLEP

(1955) National Leprosy Control Programme

(1980) Govt. decided to "eradicate" leprosy

(1983) National Leprosy Eradication Programmme

1997 - Modified Leprosy Elimination Campaign (MLEC)

2001 to 04 - SAPEL and LEC

2005- Urban Leprosy Control Programme

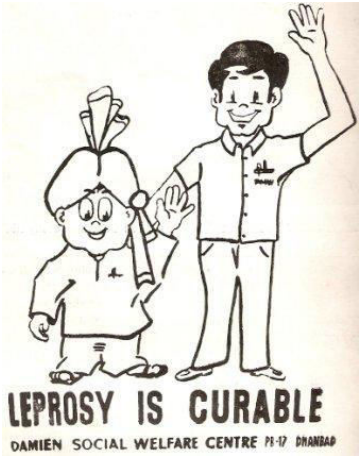
2009-2010 -DPMR

The Leprosy Mission Canada

National Leprosy Control Programme

- Since 1955, centrally aided
- ***To control Leprosy through***
  - ***Early detection of cases***
  - ***Dapsone monotherapy***
- Fourth Five year plan- centrally sponsored
- 1980- 'Eradicate' Leprosy By 2000
- 'Working Group'
  - Revised strategy based on ***multi- drug chemotherapy***
  - Aimed at Eradication

- Eradication was planned through
  - Reduction in the quantum of infection in the population
  - Reduction in the sources
  - Breaking the chain of transmission
- National Leprosy Eradication Programme-1983



Strategies: OF NLEP:-

1) Decentralization and institutional development

- services available in all PHCs
- District nucleus to Supervise and monitor
- State leprosy societies merge with state health society

2) Strengthening and integration of service delivery

- Diagnosis and treatment- more easily available
- Daily outdoor services in PHC
- Counseling of patient and Family

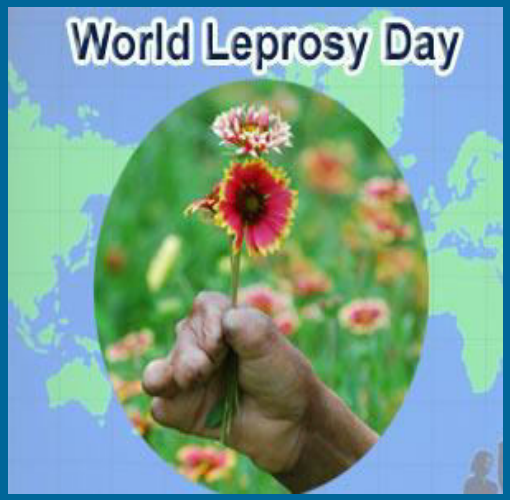
3) Disability care and prevention

- Reconstructive surgery is promoted
- Rehabilitation institutions
- Supply of MCR footwear
- persons affected by Leprosy to receive Disability certificate to enable them to get the facilities available under schemes of Social welfare department.

4) IEC Campaign

- Country –wide press advertisement on Anti Leprosy Day i.e. 30th January

- The year 2008-09 was observed as a campaign on the theme “Leprosy Free India”, all over the country



5) Training

DPMR

- The best way to prevent disabilities is:
  - **Secondary prevention i.e.,early diagnosis and prompt treatment with MDT**
- Inform patients (specially MB) about common s/s of reactions
- Ask them to come to the centre (as soon as possible)
- Start treatment for reaction
- Inform them how to protect insensitive hands/ feet /eyes
- Involve family members

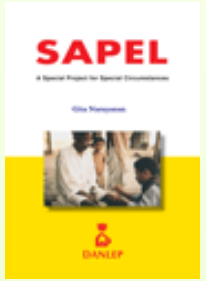
PARTNERS OF NLEP

- WHO, Nippon Foundation,
- Novartis, World Bank
- ILEP agencies
- National Governments &NGOs

Modified Leprosy Elimination Campaign

Mid term appraisal of NLEP in 1997

- Though progress was satisfactory at national level, it was uneven in some states
- MLEC involved
  1. Orientation training to health staff
  2. Increase public awareness
  3. House to House search in endemic districts to detect new leprosy cases throughout the country for 6 days



SAPEL & LEC

- In addition to regular surveillance activities
- Rural areas- Special Action Project for elimination of Leprosy
- Urban Areas- Leprosy Elimination Campaigns

1. For early detection and prompt treatment
2. IEC in rural/ tribal/ slum areas
3. 1440 SAPEL/LEC projects – decentralized during 2001-04

Urban Leprosy Control Programme

- Since 2005, Govt. of India funding
- Population >1 lakh in 422 urban areas
- Graded assistance- urban areas:into 4 categories
  1. Township
  2. Medium Cities-1
  3. Medium Cities-2
  4. Mega cities

ASHA Involvement

- 2008-09, ASHAs were involved for suspecting leprosy cases and after diagnosis, follow up till treatment completion.

- Incentive for confirmed leprosy cases out of suspect brought by them (Rs. 100/-) and for completion of treatment in time (PB- Rs. 200/-, MB – Rs. 400/-).

- The scheme was initially put on pilot basis in 5 major states of Uttar Pradesh, Bihar, Chhattisgarh, West Bengal and Jharkhand

Anti Leprosy Activities in India

- Leprosy Mission (W.B.)- founded in 1874 in H.P.
- Hind Kusht Nivaran Sangh
- Gandhiji Memorial Leprosy Foundation, Sevagram, Wardha
- The German Leprosy Relief Association
- Damien Foundation
- The Danish Save the Child Fund
- JALMA- taken over by ICMR in 1975
- National Leprosy Organisation- 1965

Conclusion

- Fortunately, modern medicine has cured most of the world of Leprosy
- People with Leprosy are being more accepted by communities around the world
- Leprosy still Remains a problem in undeveloped countries
  - The World Health Organization is putting a stop to this
  - If they reach their goal, Leprosy should be eliminated from the world within 20 years


On World Leprosy Day !
AWARENESS IS FIRST
STEP OF PREVENTION

Join Hands for a better tomorrow…