The diagnosis of leprosy

Introduction

Salvatore Noto, Pieter A M Schreuder and Bernard Naafs,

Leprosy mailing list, October 2011
Definition of leprosy

Leprosy is a chronic infectious disease caused by *M. leprae*. It affects mainly the skin and the peripheral nerves.
“Protean diseases”

Leprosy: the great imitator

Syphilis: “ “

SLE: “ “

Sarcoidosis “ “
Leprosy (TT)

Courtesy of S. Noto
Leprosy (BT)
Leprosy (BL)

Courtesy of S. Noto
Leprosy, BL reactive after pregnancy

Courtesy of B Naafs
Leprosy, BL reactive after pregnancy

Courtesy of B Naafs
Leprosy, BL reactive after pregnancy

Courtesy of B Naafs
Leprosy
(borderline in reversal reaction)

Courtesy of S. Noto
Leprosy (LL)  leprosy mailing list - October 2011 - Part I
Introduction

Courtesy of S. Noto
Leprosy, sequelae

Courtesy of S. Noto

leprosy mailing list - October 2011 - Part I
Introduction
Leprosy, sequelae

Courtesy of S. Noto
Leprosy (LL)

Courtesy of S. Noto
Slides 15, 16 and 17

• These patients were all treated with multi-drug therapy. Sequelae in themselves are not an indication to start treatment.

• These kind of patients need urgently physical and social-economic rehabilitation.
Leprosy in families: father and child

Courtesy of J A da Costa Nery
Key concepts in clinical leprosy

- The 3 cardinal signs of leprosy;
- Ridley and Jopling classification;
- Reactions and nerve damage.
The 3 cardinal signs of leprosy

1. Skin patch with loss of sensation;
2. enlarged peripheral nerve;
3. positive slit-skin smear.
The leprosy spectrum according to the Ridley and Jopling classification

<table>
<thead>
<tr>
<th>Tuberculoid leprosy</th>
<th>Borderline leprosy</th>
<th>Lepromatous leprosy</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT</td>
<td>BT</td>
<td>LL</td>
</tr>
<tr>
<td>BI      = bacteriological index</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- -</td>
<td>- -</td>
<td>5+, 6+</td>
</tr>
</tbody>
</table>

(1+, 2+)  2+, 3+  3+, 4+

**Bold Terms:**
- BT = borderline tuberculoid leprosy
- BB = mid borderline leprosy
- BL = borderline lepromatous leprosy
- BI = bacteriological index
- - = negative
- + = degree of positivity
Nerve damage in leprosy

1. dermal nerves;

2. cutaneous nerves;

3. major nerve trunks.

Nerve damage in leprosy

Most of the nerve damage in leprosy takes place during acute exacerbations of the disease called “Reactions”.

How to diagnose leprosy

• history taking;
• physical assessment; and
• laboratory investigations.
• Slides 27 and 28 show the importance of the source of light in clinical examination
Skin lesions must be examined in a good light BUT NOT direct sunlight

Indeterminate leprosy. Compare these photos, same patient, same day, same verandah!
B. examined in bright sunlight. Note shadows and that lesion can hardly be identified.
A. a well defined edge for part of the lesion, is apparent. It is slightly erythematous, when seen in good light, but not in sun. Appearance of lesion varies with angle of the rays of light. Tangential light is best, as on front of chin.
Direct sunlight passing through the foliage of the tree creates false skin lesions!