Diagnosis of leprosy – Part II

The 3rd Cardinal sign

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The 3rd cardinal sign of leprosy

“Positive slit-skin smear”
The slit and scrape method

Technique of smear-taking from the ear lobe

Warning: the use of gloves is advised

Courtesy of B. Naafs
The slit and scrape method
Technique of smear-taking from the ear lobe
The slit and scrape method

The blade is then turned through 90 degrees

Warning: the use of gloves is advised

Courtesy of B. Naafs
Technique of smear-taking

Courtesy of E Nunzi and A Clapasson
1. Smear
2. Dry
3. Fix
4. Stain
(Ziehl-Neelsen)

Courtesy of E Nunzi and A Clapasson
Morphology

d e f g

a h b i

c j

S F G

Courtesy of A Clapasson

Solid (S) Granular (G)
Leprosy (LL)

Bacteriological index (BI) = 4.83 +

Morphological index (MI) = 6.1 %
Leprosy (LL)

Bacteriological index (BI) = 4.7 +

Morphological index (MI) = 26.4 %

Courtesy of S. Noto
San Martino Hospital
Genoa, Italy

Smear examination report

<table>
<thead>
<tr>
<th>Patient's surname and name</th>
<th>Date of smear taking</th>
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<tbody>
<tr>
<td>Age</td>
<td>Sex</td>
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Sites of skin smear: BI, MI, S, F, G, Globi

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<tr>
<th>Sites of skin smear</th>
<th>BI</th>
<th>MI</th>
<th>S</th>
<th>F</th>
<th>G</th>
<th>Globi</th>
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<td>Averages</td>
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Date and averages of previous skin smear: %, %, %, %

Skin smear comments

Nasal smear

Courtesy of A. Clapasson
Bacteriological examination is an essential procedure for all patients in whom the diagnosis of leprosy is suggestive after a detailed clinical examination. It assists in:

1. **The diagnosis of leprosy**;

2. **The classification of leprosy**;

3. **Monitoring the response to treatment in skin smear positive patients**; and

4. **Excluding the diagnosis of leprosy**.