

Your questions answered

Question:

How should one test for loss of sensation?

Loss of sensation in skin lesions is a sign of leprosy. Sometimes this is marked, but with many leprosy suspects I find myself in doubt about whether it is present. Asking colleagues for their opinion in such cases doesn't always help, as we often come to different conclusions. Have you any advice regarding the procedure for testing for loss of sensation?

Answer:

I think most leprosy workers are familiar with the problem you describe. In my experience, the problem usually lies in making sure the results are interpretable, rather than in the testing technique itself. I can offer the following suggestions.

Be objective in your clinical investigation: for example, favouring a diagnosis of leprosy because you know the suspect has several household members who have (had) the disease, tends to 'influence' your observations.

Be systematic in your approach, i.e. always use the same instruments in the same order and in the same manner. If your procedure includes testing for diminished pain sensation, it is best to do this test last, as the procedure involved may 'blunt' the individual's ability to feel the finer stimuli of instruments testing for anaesthesia to light touch or loss of thermosensation.

First, establish that the individual responds correctly to testing of unaffected skin around the lesion. (Finding diminished sensation in a lesion on the foot of a long-standing diabetes patient does not mean much!) Unless they scores 10 out of 10 with a particular test, it is not useful to then test suspect lesion(s) with that instrument. Many individuals 'improve' their sensation with a little training! One might start out by demonstrating the 'impact' of the instrument on a sensitive area like the face or the back of the hand, before testing the area around the lesion. It may also help to let the subject observe your testing: one often feels better if one sees what one is supposed to feel. You may need to repeat these procedures each time you use another instrument. Remember that people – especially children, anticipating injections – may not feel the instruments because they are afraid of them. Explanations may not always be helpful, and it is often more useful to illustrate the use of the instrument on yourself first.

Now test the lesion itself. Here, it is important to remember that many people want to do well, e.g. because they are eager to please the investigator. Therefore the subject should not see what you are doing. Just asking him or her to close the eyes may not be enough; ask someone to shield the eyes.

Test the lesion and the surrounding skin (or, if the lesion is very big, the corresponding

contralateral area) avoiding any pattern in terms of order or timing: many subjects try to detect a logic to your testing procedure! If blinding of the individual is difficult, such as when the lesion is in the face, and the subject may either 'peep' or detect the movement of your hand, you can test the reliability of the responses by including 'make-believe' stimuli, e.g. bring the instrument to the skin but not actually touch it.

Remember that only part of the lesion may exhibit loss of sensation – sometimes it is a very small part. Thus it is important to test the whole lesion.

If in doubt about your results, you may want to put the patient on observation, and retest the lesions later.

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