

The presence of *M. Leprae* in the Breast Secretion of a Non-Lactating Woman with Lepromatous Leprosy

J. C. PEDLEY

Leprosy Department, United Mission Hospital, Tansen, Palpa, Nepal

It is generally known that secretion may be expressed from the breasts of a woman who has borne children but is not lactating.

In seeking further evidence of the presence of *M. leprae* in human milk¹, I decided to examine the breast secretion of a Nepali woman aged 60, with untreated lepromatous leprosy.

CASE REPORT

The patient, seen in November, 1967, complained that the skin of the face had become 'lumpy and swollen' during the past 4 months, and that for one year she had suffered with 'pins and needles' sensation in hands and feet. She had given birth to 7 children—the last 21 years previously.

Physical examination

The skin of the face is grossly infiltrated and covered with coalescing plaques of raised oedematous skin, and broad-based nodules. Both ear-lobes are greatly enlarged, pendulous, and swollen. The skin of the trunk, arms, thighs and legs appears to be diffusely infiltrated (although crinkly) and shiny. The skin over the breasts (which are atrophied) also appears to be diffusely infiltrated.

Investigations

1. *Skin slit scrapes*: from 6 sites—both ear-lobes, both brows, both breast areas, gave almost a maximum B.I. reading, and M.I. 11%.

2. *Nasal mucous smear*: showed maximum B.I. reading, and M.I. 90%.

3. *Breast secretion smears*: both nipples and surrounding skin were thoroughly cleansed with

several swabs soaked in ether. By manipulation it was not difficult to express secretion from both nipples. Quite large beads of secretion were seen emerging from several points on the summit of each nipple. Examination of the smears revealed microscopic fields crowded with acid-fast bacilli, mostly in solid rod form, and numerous globi and globi-like accumulations of solid rod bacilli, one of which is seen in the accompanying photomicrographs.

DISCUSSION

Had this woman been of child-bearing age and lactating and in a similar state of untreated lepromatous leprosy, it is not difficult to believe, on the basis of the findings reported in this and the previous paper¹, that her child would have been ingesting active *M. leprae* in very large numbers.

In addition to the above patient, the writer has examined the breast secretion of 2 young non-lactating women who have borne children. Both were suffering with active and untreated lepromatous leprosy. Large beads of secretion were drawn off quite easily from the nipples with a breast pump, and in both of these women acid-fast bacilli in solid rod form were found in the secretion in scanty numbers, i.e., a few bacilli in some thousands of microscopic fields. Thus for this type of investigation it is *essential* to use a good binocular microscope with interior lighting, and an accurately moving stage on which a logging gauge is marked. By means of the latter, it has been possible to log the position of *each* bacillus or group of bacilli so that they could be checked by an independent witness.

SUMMARY

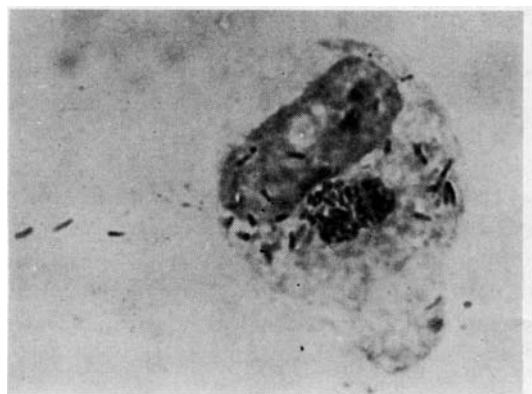
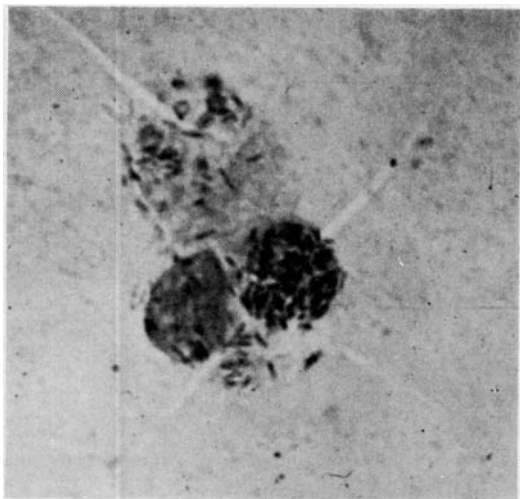
M. leprae have been discovered in great numbers in the breast secretion of a non-lactating woman suffering from highly active and untreated lepromatous leprosy. This finding provides further evidence that *M. leprae* may be present in human milk.

ACKNOWLEDGEMENT

I am greatly indebted to Dr. Douglas Harman of the Leprosy Study Centre, London, for the accompanying photomicrographs.

REFERENCE

PEDLEY, J. C. The presence of *M. leprae* in human milk. *Lep. Rev.* (1967), **38**, 4, 239-242.



Macrophages containing *Myco. Leprae* in the breast secretion