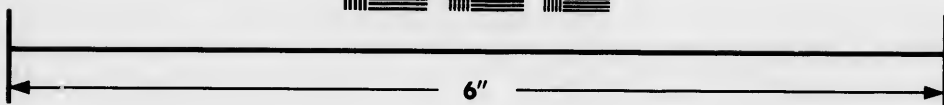
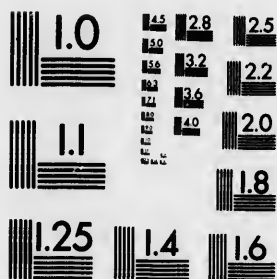


IMAGE EVALUATION TEST TARGET (MT-3)



Photographic
Sciences
Corporation

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

**CIHM/ICMH
Microfiche
Series.**

**CIHM/ICMH
Collection de
microfiches.**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1986

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

- ☒ Coloured covers/
Couverture de couleur
- ☐ Covers damaged/
Couverture endommagée
- ☐ Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/
Le titre de couverture manque
- ☐ Coloured maps/
Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
- ☒ Bound with other material/
Relié avec d'autres documents
- ☐ Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distorsion le long de la marge intérieure
- ☐ Blank leaves added during restoration may
appear within the text. Whenever possible, these
have been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.
- ☐ Additional comments:/
Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- ☐ Coloured pages/
Pages de couleur
- ☐ Pages damaged/
Pages endommagées
- ☐ Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
- ☒ Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
- ☐ Pages detached/
Pages détachées
- ☒ Showthrough/
Transparence
- ☐ Quality of print varies/
Qualité inégale de l'impression
- ☐ Includes supplementary material/
Comprend du matériel supplémentaire
- ☐ Only edition available/
Seule édition disponible
- ☐ Pages wholly or partially obscured by errata
slips, tissues, etc., have been refilmed to
ensure the best possible image/
Les pages totalement ou partiellement
obscurcies par un feuillet d'errata, une pelure,
etc., ont été filmées à nouveau de façon à
obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

The copy filmed here has been reproduced thanks to the generosity of:

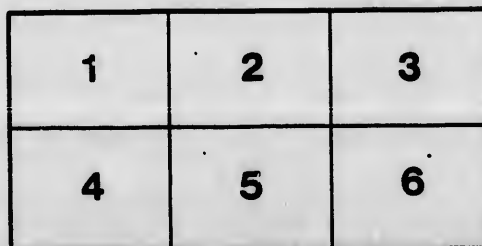
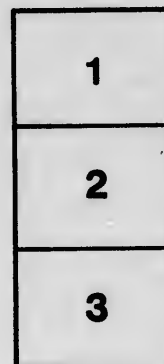
Medical Library
McGill University
Montreal

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol → (meaning "CONTINUED"), or the symbol ▼ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

Medical Library
McGill University
Montreal

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaît sur la dernière image de chaque microfiche, selon le cas: le symbole → signifie "A SUIVRE", le symbole ▼ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.

etails
s du
odifier
une
mage

errata
to

pelure,
on à



THREE CASES ILLUSTRATING THE VALUE OF THE
BACTERIOLOGICAL DIAGNOSIS OF LEPROSY
FOR PUBLIC HEALTH PURPOSES.

BY

WYATT JOHNSTON, M.D.,

Lecturer on Bacteriology and Medico-Legal Pathology, McGill University ;
Pathologist to the Montreal General Hospital.

AND

W. H. JAMIESON, M.D.,

Demonstrator in Pathology, McGill University : Assistant Pathologist to the Mont-
real General Hospital.

(Reprinted from the Montreal Medical Journal, January, 1897.)

...
s
l
t
e
s
a
a
a
2
ic
e
t
n
t
s

THREE CASES ILLUSTRATING THE VALUE OF THE BACTERIOLOGICAL DIAGNOSIS OF LEPROSY FOR PUBLIC HEALTH PURPOSES.¹

BY

WYATT JOHNSTON, M.D.,

Lecturer on Bacteriology and Medico-Legal Pathology, McGill University ;
Pathologist to the Montreal General Hospital.

AND

W. H. JAMIESON, M.D.,

Demonstrator in Pathology, McGill University : Assistant Pathologist to the Montreal General Hospital.

(From the Laboratories of the Board of Health of the Province of Quebec and the Montreal General Hospital.)

The case which we wish to bring before the Society to-night is that of a Chinaman, aged 27, who was brought to the Montreal General Hospital in a dying condition, and died a few hours after admission. The man had been a little over a year in the country and was not known to be suffering from any serious illness.

As some suspicions of violent death arose, a coroner's autopsy was performed.

External examination of the body showed a gangrenous, ulcerated area, 2 inches in diameter, involving the skin over the right elbow, surrounding which the tissues were thickened, firm and nodular. Numerous firm nodules were seen on the skin over the face, extremities, back and genitals ; over the surface of the glans these were especially well marked.

The nodules on excision showed no signs of necrosis or suppuration and appeared to be chronic. The cellular tissue of the right upper arm was cedematous, with ecchymosis in the course of the lymphatics, and during the autopsy numerous ecchymosed areas, varying from 2 to 6 inches in extent, were found in regions which excluded the idea of their being the result of contusions. The most marked ecchymosis was beneath the right iliac and psoas muscles.

Bacterial examination of these ecchymoses showed a few short, thick bacilli (*Proteus*) staining by Gram's method ; no micrococci.

The nerves showed no changes and in particular no nodules in the nerve sheaths. The lungs were deeply congested, no consolidation, no tubercles, or other nodular deposits. In the left epididymis there were several firm, whitish nodules the size of peas. Cut surface firm and

¹ Read before the Montreal Medico-Chirurgical Society, Nov. 9, 1906.

smooth. The other organs showed nothing of special note. Nutrition was good. The gangrene of the skin over the elbow and the evident condition of septicæmia present appeared to explain death.

The general nodular skin eruption did not correspond with either syphilis, lupus, glanders, variola, nor with any of the forms of skin diseases ordinarily met with. It was only towards the close of the autopsy that the idea of the eruption being due to leprosy occurred to us. A cover slip was then prepared by smearing it with a drop of the juice obtained by scraping one of the nodules. On staining this with carbol fuchsin and decolourizing with sulphuric acid and methylene blue (Gabbett's fluid), innumerable, slender, red rods were seen, many of them arranged in the peculiar clumps designated as lepra cells.

Examination of the nodules in the testicle showed also the presence of numerous lepra bacilla, and sections of the skin showed large numbers in the deeper layers. Cultures from the smaller nodules of the skin on Loeffler's serum and glycerine remained sterile. Inoculation of a small nodule into the anterior chamber of a rabbit's eye, shows at the end of three months a nodular exudate over the anterior surface of the iris. No signs of tuberculosis appeared in the animal, the general condition being good and its weight not diminished.

The examination of cover slips thus established the nature of this case with certainty in a few minutes, whereas without this neither the post-mortem nor the clinical examination by the house physician or the physician in attendance had led to the discovery of its real nature.

The bacteriological method appears to be thus eminently adapted for the examination of any doubtful case of skin disease which may be leprosy, as the bacilli are certain to be found in large numbers in cover slips prepared from the material obtained on scraping the nodules of the skin.

The microscopic resemblance between the leprosy and tubercle bacilli should not form a serious source of error, as in tuberculous lesions of the skin the bacilli are always very scanty, and usually only a few are found in the entire cover slip, while in lepra each microscopic field shows enormous numbers of them.

The lepra bacilli also readily stain by the simple aniline dyes, while tubercle bacilli do not.

The ease and certainty by which the diagnosis of leprosy can be made was also shown in a case which one of us (Johnston) examined for Dr. Shepherd six years ago. This patient, a West Indian mulatto, had a good position as waiter in a Montreal hotel, and to avoid losing

his position, allowed himself to be treated for three years for syphilis without any improvement resulting. He then visited Dr. Shepherd's skin clinic, where a diagnosis was made at once from the appearance of the skin eruption and the presence of anæsthetic areas, this diagnosis being confirmed by the microscopic examination.

Recently a case has come under our notice where a Chinese laundryman in Three Rivers, supposed to be a leper, was kept under observation and isolated while a scraping from one of the skin lesions was forwarded for bacteriological examination to the Laboratory of the Board of Health of the Province of Quebec.

No leprosy bacilli were found. Subsequently our personal examination of the case showed it to be one of psoriasis, and a repetition of the bacterial tests again gave negative results.

While authorities differ as to whether leprosy under certain conditions is actually contagious, there can be no doubt as to the advantages of the bacteriological method of diagnosis for public health purposes, since by this means an obscure case can be made out in the course of a few minutes, and if the suspected person is situated at a distance from any laboratory, the samples scraped from a nodule of the skin may be sent by mail enclosed in an envelope addressed to the bacteriologist. In choosing a nodule from which to take the specimen, it is perhaps better to select one in an early stage, before much scarring has taken place, by pricking or scraping off the top of a nodule, and collecting the fluid which exudes on pressure. When dried on an ivory vaccine point or a glass slide samples may be more readily sent by post.

Manson has recommended rendering the nodule anæmic by clamping the base with forceps before taking the sample, but in our experience this is not necessary, as the blood does not interfere with the examination.

We have reported these cases because in spite of the dread with which leprosy is regarded by the public, this simple means of diagnosis does not seem to have been as frequently made use of as it should be by the sanitary authorities.

