

to the wise precaution of treating all doubtful cases as if they were cases of diphtheria, and possibly, too, in some degree to a tendency to pride ourselves upon our sagacity, valuing the result of a clever guess more than that obtained by a less brilliant, though more certain, method. As a matter of experience, a large proportion of the doubtful cases, especially the tonsillitis group, declare themselves to be one thing or the other by the time the doctor makes his visit on the following day.

In conclusion, it may be stated :

(1) That in almost all cases where strong clinical grounds exist for the diagnosis of diphtheria, the bacteriological examination has shown the almost invariable presence of the malignant Loeffler bacilli.

(2) That, excepting in connection with scarletina, measles or erysipelas, the number of cases of diphtheritic sore throat due to other causes is very small.

(3) That in doubtful cases the accuracy of the method depends chiefly upon obtaining suitable material at an early stage of the disease.

(4) That the method is not of much service in doubtful cases where the difficulty is due to the infection occurring in localities difficult to examine without skilled manipulation, unless suitable material is obtained for examination.

SUMMARY OF METHOD FOR DETECTING LÖEFFLER BACILLI.

Microscopical Examination.—Stain a cover-glass smeared by a bit of membrane with any aniline dye. The bacilli are arranged in small clumps, and are short, thick rods, about same length as tubercle bacilli, but much thicker; numerous beaded and drumstick shapes met with—in solution forms. Gram's staining method can be employed.

Cultures.—Can be made direct from membrane in throat or from small bit of membrane folded dry in clean paper. No special antiseptic precautions necessary. Touch or scrape membrane with a sterilized platinum needle and draw it in parallel streaks over the surface of a serum tube, using two or more successive tubes before re-infecting the needle. Keep the tubes at body temperature. In 20–24 hours the Loeffler bacilli appear as small grayish-white points, size of pin-heads, showing under the microscope the characteristic appearances of the bacilli in the original membrane.

Diagnosis.—(a) Other bacilli do not form visible colonies at twenty-four hours. (b) Staphylococcus colonies resemble those of Loeffler bacilli to naked eye appearance, but recognized on microscopic examination. (c) Pseudo-diphtheritic bacilli have microscopic and culture characters of the Loeffler bacilli, but have no pathogenic properties.