

composed of short, thick bacilli, having the typical appearance of the Loeffler bacilli. Involution forms numerous. In agar plates small, flat colonies appeared on the second and third days, showing superficial thin concentric growth from a small central white spot. In stale culture in agar the growth, on first transplantation, was barely visible, but in subsequent generations the colonies became more distinct, forming always flat, circular, concentric, white growths on surface about the entry point of the needle. Microscopically the bacilli in the agar cultures were short, thick rods with rounded ends; their length was about 0.0015 to 0.002 mm. (one and a half to two-thousandths of a millimetre). None of the agar cultures showed involution forms.

*April 28th, 1891.*—Inoculated a very large, full-grown female guinea-pig with 0.7 ccm. of a watery suspension obtained from washing a seven days old culture in six per cent. glycerine agar-agar. Injected subcutaneously in right flank.

*May 6th.*—Found dead in cage; had been quiet and refused food for past three days. In right flank, at site of inoculation, induration and gray opacity of skin and subcutaneous tissue, with some hemorrhage; marked œdema extending from this spot to right axilla and backward to right groin.

Microscopically, a few bacilli corresponding in size to Loeffler bacilli found in the œdematous fluid. Microscopic examination of blood, lungs, liver, kidneys and spleen negative. Kidneys swollen, opaque and grayish in sections; extensive swelling and degeneration of epithelium in convoluted tubes; a few casts seen in the tubules. From œdematous fluid cultures in two serum tubes showed on following day numerous small colonies of a bacillus corresponding to Loeffler bacillus with well marked involution forms, staining well by Gram's method. Cultures from blood, spleen, lungs, liver and kidneys, all remained sterile.

The remaining cases, except a few of special interest, are briefly summarised in a table, as they were for the most part practically repetitions of the one given above. One case was of special interest and occurred in the private practice of Dr. Major. In this case, which I saw for the first time on the seventh day,