

The bacillus is pathogenic for guinea-pigs, rabbits, chickens, pigeons, small birds, and cats; and, in a lesser degree, for dogs, goats, cattle, and horses. Inoculation tests in animals have revealed the presence of the characteristic paralysis. When diphtheria is communicated to an animal by inoculation, unless the dose is very large, the germs remain at the seat of inoculation, and are very rarely found in the internal organs. But this does not correspond to what takes place in natural human diphtheria. In the human subject the best observers have found that the bacilli are found in the internal organs. This general infection occurred usually in cases of septic diphtheria. An interesting point in the work is the emphasis given to the fact that virulent Klebs-Löffler bacilli may be found in the throats and noses of persons who show no signs of the disease. This is specially true of those coming in contact with persons who have the disease. On the matter of mixed infection, it is stated that the condition is common; and the streptococcus, staphylococcus, and pneumococcus are most frequently found along with the diphtheria bacillus.

Much attention is given to those bacilli which closely resemble the Löffler, and are known as pseudo-diphtheria bacilli. He concludes: "It may be said in brief, that a given diphtheria like bacillus which produces little or no acid in bouillon cultures, that shows no or only atypical polar granules in a twelve to twenty-four hour-old blood-serum culture, and is never pathogenic to guinea pigs, may be safely classified as belonging to the great class of pseudo-diphtheria bacilli."

Passing over the remarks on the pathology of the various organs, we note that he divides the disease clinically into the following groups: Catarrhal Diphtheria, or those cases in which are found only redness and severe swelling of the pharynx and tonsils; Fibinous Diphtheria, or those cases of pure Löffler bacilli infection, local in nature, and the presence of false membrane; Mixed, Phlegmonous, or Strepto-diphtheria, or those cases due to the association of some other germ, usually the streptococcus, along with the Löffler bacillus; Septic, or Gangrenous Diphtheria, or those cases developing into a septicæmia, the reason for which is not well known, but thought to be due to a mixed infection invading the general system.

The author accords high value to the diphtheria anti-toxin. When used on the first day, the death rate is about 3 per cent.; when used on the second day, 8 per cent.; on the third day, 13 per cent.; on the fourth day, 23 per cent.; and on the fifth day, 35 per cent. The dosage recommended is: From 2,000 to 3,000 units for a child over one year in an ordinary case; from 3,000 to 5,000 units for a severe case; for a child under one year, 1,500 to 2,000 units. These doses are to be repeated in 12 hours,