

antidotal to any streptococcus except the particular one that has produced the antitoxine. There are streptococci and streptococci and they differ widely in their properties, so that the one you may have to deal with in a case of meningitis or of child-bed fever, etc., may not be identical with the one used to produce the serum, and if not, it is not neutralized. So the bacteriologists are in a state of great scepticism as to the value of that serum, and I think such serum should not be introduced into general practice until there is a good experimental basis to authorize it.

COCCIDIOSIS IN LIVER OF RABBIT.

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Coccidia occur very frequently in the lower animals, especially the rabbit, and produce their effects in the liver, intestine and urinary organs. In man their occurrence has been noted in but few cases, and takes the form of a general and local infection. The coccidia invade the epithelial lining of the ducts, or mucous surfaces, and the skin, and from thence they may be enabled to enter the connective tissue by means of the lymph or blood-vessels, and so become generally disseminated.

The disease, as it appears in the liver of the rabbit, may be seen to occur in whitish nodules, varying much in both number and size. Their occurrence in large numbers is very frequent, and their dimensions may range from that of a pin's head to a hazel-nut. When these nodules are cut into, a semi-transparent, yellowish-white, almost caseous material escapes, which consists of debris and a great multitude of coccidia. The coccidium oviforme, as seen in the cysts, occurs in two forms: a round, granular, protoplasmic mass, varying in size, and an oval encapsuled body containing more or less granular material, which only partly fills up the space with the membrane. Those which may be presumed to be the less mature forms, are round, granular, possessing often a nuclear appearance within them. Of the younger forms most of them exhibit many peripheral, deeply staining granules, arranged apparently about the circumference of the coccidium. The more mature forms possess a capsule, and are clear oval bodies, showing a double contour under the microscope.

R. Pfeiffer maintains that these young protoplasmic, non-encapsuled coccidia may split up within the lumen of the bile-ducts into many "sickle-shaped" bodies, and so propagate themselves. With the encysted forms, however, before they multiply it would seem that they must pass from the body of their host, for their further development cannot be traced in