

and capillaries with migratory cells filled with bacilli so that they appear as if injected. This is followed by the production of tubercles in the lymphatics ; at the same time an invasion of other organs takes place and a pneumonic condition of the lungs may arise.

These researches depend upon inoculation of the ear vein of the rabbit, which vein carries the blood by the right heart direct to the lungs. When Borrel injected the mesenteric vein the same process occurred in the liver, the thrombi forming in the capillaries of the portal circulation. When we consider the subject of tubercular infection through the intestinal tract we have several different possibilities offered to us as to its future course. Tchistowitch has seen leucocytes between the epithelial cells of the mucosa of the intestine with several bacilli in their midst, and he considers them as passing in loaded with these bacilli, which they have picked up on the free surface of the intestine. Should they enter in this manner then we may have formed in the submucous adenoid (lymphoid) tissue a primary tubercle which would lead finally to an intestinal ulceration. But they may possibly pass into the lacteals and give rise there to infection of the lymphatics and tuberculosis of the mesentery and of the mesenteric glands. A third possible and extremely probable course would be into the venous capillaries and thence into the portal circulation ; where we may conclude they would, as Borrel has shown, give rise to tubercles in the substance of the liver. If then these possibilities all occur in one or other instance, then we must look upon primary tuberculosis of the intestine, (secondary infection of these organs arising from primary tuberculosis of lungs, being naturally a comparatively common event) of the mesentery or the liver as evidences of intestinal infection.

#### DEGREES OF INFECTION AND THEIR BEARING ON THE INDIVIDUAL.

While the statistics already quoted sufficiently illustrate the high degree to which the infection of tuberculosis has extended both in men and animals, the problem of "To what extent the presence of the disease in the individual has affected its general health at any time, from that of the initial infection to that when death has ended the struggle?" is one which must depend, (a) upon the individual constitution ; (b) the virulence and extent of the infecting agency ; (c) upon the seat of infection in the system, and (d) upon the environment of the individual,