

iron apparently passing between the epithelial cells towards the lumen of the bowel, others loaded with iron actually in the lumen of the bowel (outside of the body as it were), and these same ironladen leucocytes were traced back between the epithelial cells of the mucosa, into the venules of the villi and into the capillaries of the liver and spleen. These leucocytes while taking up iron and food stuff, from the cavity of the bowel itself, without doubt in their migration back into the tissues, carry innumerable bacteria. This has been proved by many observers, the bacteria being in a more or less disorganized condition. Thus Ruffer found bacteria-laden lymphoid cells on the free surface of the mucosa and between the epithelial cells while the cells of Peyer's patches contained enormous numbers. But Nature has prepared a line of defence in these same lymphoid elements so that normally the bacteria are destroyed—"the tendency is for the entering bacteria to be rapidly destroyed." (Adami).

The foregoing proves, that while these structures tributary to the intestinal tract, are not normally absolutely sterile, they are nevertheless potentially so, and it is only when the equilibrium between attack and defence is disturbed, by a weakening of the powers of the leucocytes, or by affording more favourable opportunities for development to the bacteria, that infection, properly so called, takes place from the intestinal tract.

Adami says, "if it does happen that bacteria enter the circulation under ordinary circumstances, all will agree, that the more frequent regions of entrance are likely to be found, not so much in connexion with the denser epithelial surface of the body, as in connexion with the more delicate mucosæ of the respiratory and alimentary tracts, \* \* \* in connexion with this alimentary tract we have very definite evidence that here bacteria may penetrate the protective barrier of epithelial cells, nay more, that they are *constantly* being taken into the system."

One would hardly class Hydatid disease as one of the infections from the intestinal tract, although we know that it invades the organism by this route, but abscess of the liver from Amoeba infection would come within the range of our discussion. However, owing to its rarity in our country, we need not take up time with it. But the complications of typhoid are liable to be met with by us at any time. Although it is rare, according to late investigators, to find the bacillus in the stools after the second week, still infection has already occurred through the alimentary tract, and the bacilli can be demonstrated in many complicating lesions. I wish to call your attention especially to its infection of the biliary tract, for late investigation is clearing up much of the mystery of Cholelithiasis. The lower third of the common bile duct is