

The colon, as in the adult, is a reservoir for feces, digestive power being absent and absorptive power slight.

We turn now to the bacteriology and pathology of the alimentary canal.

Normally at birth the whole canal is sterile, but in a few hours bacteria are found throughout its whole length. The stomach, as a rule, is practically free, except in disease, but in the intestine there are two obligatory or constant forms. Escherichs was one of the original investigators in this direction, and Krus, Biedert, Baginsky, Lesage and many others have added to his work. On this side of the water, Booker's exhaustive investigations are indispensable to any one wishing to study the subject, especially his communication in the Johns Hopkins Hospital Reports, Vol. VI., 1897. It has been found that the two obligatory bacteria in healthy nurslings are *B. lactis aerogenes* and *B. coli communis*. The first form thrives in the presence of milk sugar, and is, therefore, most abundant in the upper parts of the small intestine; the *B. coli communis*, as its name implies, prefers the lower small intestine and the colon. In diseased conditions these normal relations are disturbed and the bacteria are formed in enormously increased numbers in other than their own portion of the canal, with new-formed and greatly increased toxicity, and in company with others of upwards of thirty different varieties in different cases as studied by Booker, and including various micro- and strepto- cocci and bacilli the exact bacteriological condition cannot, of course, be clinically determined in each case, but it may vary from the simple non-inflammatory dyspeptic diarrhea with no bacterial abnormality, to the severest streptococcic gastro-enteritis, with all sorts of bacterial combinations and grades of clinical severity between, which, of course, makes classification very difficult, as we shall see. Various forms of *Proteus vulgaris* are common, and usually in severe cases.

As regards the pathology of infantile diarrhea, it is not necessary that I should occupy your time with any discussion of the lesions of the alimentary canal. I prefer to pass on to a brief statement of the lesions found secondarily in other viscera. Suffice it to remind you that the most fulminant cases may be those in which death is due to toxins which leave behind but little trace of damage to the alimentary mucosa anywhere; while in other cases, the mucosa is found in any stage of destruction, from mere hyperemia and superficial loss of continuity to severe inflammation with infiltration of leucocytes, erosion, necrosis and sloughing right through to the serous coat, luxuriant bacillary invasion of the tissues of the bowels and chronic ulceration of the bowel if life be sufficiently prolonged.