

present in the early days of the disease, was not an error. Continuing, the essayist said :

However, before entering upon the treatment there are some fundamental facts which it is necessary to keep prominently in view in order to appreciate the logic of eliminative treatment.

1. There is the constant augmentation of the toxæmia. The toxine produced by bacilli in the intestinal contents and that produced by the colonies located in Peyer's Patches and the mesenteric glands is constantly being conveyed into the general system. Poison produced by colonies located in the spleen as in the other viscera would reach the circulation at once.

2. From the intestinal bacilli, both specific and bacillus coli, are carried to further increase the number in Peyer's Patches, mesenteric glands and spleen.

3. That death comes in typhoid in two ways, leaving out accidents such as epistaxis, etc., either by excessive accumulation of toxins in the body or by the excessive local action of the toxins on particular tissues.

Roughly it is said that eighty per cent. of the fatality in typhoid is due to toxæmia, that is, the constant augmentation of poison, either directly by overcoming the centres or less directly by producing exhaustion, proves fatal. The remaining twenty per cent. of the mortality includes of course the rare and accidental causes, but is mainly made up of the cases that die from excessive local action of the toxins on particular tissues. By far the greater portion is due to hæmorrhage and perforation, two accidents incidental to necrosis. So much of the toxins accumulates in Peyer's Patches owing to the facility with which bacteria, specific and bacillus coli, and toxins are carried from the intestines to still further increase the amount of toxins in the gland. The gland tissue at first irritated, is no longer able to resist the prolonged action of the ever-increasing toxins, and death of the part occurs.

Let us now notice the defensive measures against the condition described.

1. There are the channels through which toxic substances are got rid of.

These are : 1. The biliary secretion. By means of the bile, toxic materials are abstracted from the body and poured into the intestine, and so out of the body. Bouchard estimates the toxicity of bile as nine times greater than that of the urine. 2. Next to the bile as a means of eliminating poison from the system comes the urine. 3. The serous secretion into the intestine would, in case toxic