

It may be said here that these tests were made by both of us independently and the results tallied exactly in each case. Parallel cultures of known typhoid germs were made also as controls, so that the chain of evidence should be as complete as possible.

From a study of the cases above referred to, it will be seen that this atypical typhoid is a very protean disease, its toxic power at one time being concentrated upon the mesenteric glands, at another upon the spleen, the liver and gall-bladder, the central nervous system, upon the kidneys, heart, or lungs, as the case may be.

While in typical typhoid the Peyer's patches suffer the most, yet the relative intensity with which the other organs are affected also varies. Thus, variability, while most characteristic in atypical cases, must be regarded as a feature common to typhoid as a whole. Clinicians have long recognized that one or more of the text-book symptoms may be absent, or in the background, and that cases, while they conform to a broad general type, often present minor differences. With respect to the intestinal tract alone, we now know that there may be all grades from a normal Peyer's patch to the most severe ulceration; not only so, but the usual intestinal lesions may be delayed. Cases have been reported recently where as late as the twenty-first day the Peyer's patches presented merely slight hyperplasia without necrosis. We must recognise then great variety in the intensity and course of the process.

Broadly speaking, typhoid without intestinal lesions falls clinically into three main classes.

1. Typical typhoid, minus the ulcerations.
2. Spleno-typhoid.
3. The nervous type, with extreme intoxication.

To the first group would appear to belong the cases of Banti, DuCazal and Cheadle. Diarrhoea may be present in such cases. Cases of this type are very rare.

The second class, spleno-typhoid, presents a more definite clinical entity, and was first described by Eiselt. This form is characterised by an excessively large spleen, often with acute perisplinitis, and fever of a recurrent type. In such cases the plasmodium malarie and Obermeyer's spirillum are absent. Some of these cases do present ulceration of the intestines, but it is often absent.

Thue's case and Karlinski's first case are examples of this.

The third class, due to a severe intoxication, are characterised by extreme prostration, delirium, coma, sometimes hyperpyrexia, degenerative changes in the vascular system leading to purpura, hæmaturia, melaena. Jaundice is sometimes present. Many of these cases are, no