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Semi-solid	Litmus Milk	Dextrose Serum Water	Lactose Servin Water	Saccharose Serum Water	Mannit Serum Water
Clouded	Slight	Acidity plus	No change	No change	Acidity plus
No gas	acidity	Coagulation	24 hours	24 hours	Coagulation
24 hours	Permanent	24 hours	-		24 hours

typhoid alpha and beta in dilutions of 1-20 are negative. See following tables:---

The histological lesions in the various organs such as the intestines, spleen and lymph nodes are specific of hacillus typhosus infection. In general, sections of spleen show marked congestion. The Malpighian bodies are everywhere swollen. The most noticeable feature in the sections is the presence of great numbers of large phagocytic cells containing chiefly red blood corpuscles. These cells are found filling up the blood sinuses, and often contain twenty or more crythrocytes. Many of the lining endothelial cells are swollen and show mitotic figures. The lymphoid and plasma cells throughout the pulp are moderately increased.

In sections of Peyer's patches and of the lymph glands, here also the most striking feature is the presence of large numbers of phagocytic cells similar in every respect to those in the spleen.

The sinusoids of the liver contain many of these large phagocytic cells which Mallory claims may come from the spleen through the portal circulation and are arrested in the sinusoids. Places are seen in which the blood channels are occluded by these cells, giving rise to definite areas of focal necrosis.

Here we have a most unusual case of typhoid fever. Clinically it is of interest only on account of the very severe toxemia from which death resulted during the first week of the disease. However, it is in the pathological aspect of the case that the chief interest lies.

To fully understand a pathological lesion we must follow and study every step of its development, especially the initial changes. Where lesions can be produced experimentally this is a comparatively simple matter; but on account of the difficulty of producing typhoid fever in animals we are dependent on material from post-mortem examinations. As a rule death from typhoid fever does not occur until the third week of the disease or later. In this case death occurred on the seventh day, before ulceration had taken place in the intestines, so that here we are afforded a very exceptional opportunity of studying the earliest histological changes.

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