

Some cases have been attributed to the anæsthetic, but they have been observed to occur after local anæsthesia as well as general.

Sepsis, according to Dr. W. L. Rodman, as the causative factor, has appealed to Mr. Moynihan as most likely, though often other obvious evidences of sepsis are wanting? They believe that in many cases the infection is so virulent as to produce rapidly fatal toxæmia without local evidences such as peritonitis.

Mayo Robson speaks of reflex nervous influence as a cause, but is criticized by Purves, who claims that if such cause exists, sepsis would determine the onset of the reflex, would prolong its duration and render its effects more serious.

The cause which seems to be most devoid of theoretical clothing is the one which has to do with the determination of an altered relation between the blood vessels and their contained blood.

Acting thus, traumatism, often, no doubt, of the most gentle variety, is most potent, though certainly one can readily believe that in combination with sepsis it would be still more powerful.

The experiments of Litten and Hoffman on the mesenteric and omental vessels respectively tend to prove that constriction or trauma of these vessels may be followed by gastro-intestinal hæmorrhage, in some cases resulting from a venous or arterial thrombosis with hæmorrhage by diapedesis as in the early cases, and in others, as in the later cases, from a retrograde arterial thrombosis with consequent cutting off of nutrition either directly or by progress into a terminal artery or by infarction and subsequent necrosis from digestion.

In connection with Hoffman's experiments it is interesting to note that after ligation of the omental vessels in various animals the occurrence of gastro-intestinal hæmorrhage was much more frequent in the guinea pig than in the rabbit and more frequent in the latter than in the cat or dog, and also that its frequency was greater when the vessels were ligated near the gastric attachment of the omentum. He concluded from this that the larger arteries of the large animals were less likely to present retrograde thrombosis and that the nearer the traumatism was to the stomach the greater was the chance of retrograde thrombosis extending to the gastric arteries.

Coupling with this the clinical fact that post-operative gastro-intestinal hæmorrhage occurs more frequently after operations upon the stomach, the duodenum and the gall bladder and bile ducts, where the element of proximity is present as well as an unavoidably large degree of manipulation, a considerable amount of support is lent to what might be summed up as the vascular clothing method of causation.

The names of Schnitzler, Nelman, Kukula, von Eiselberg, Kehr, and Prof. Frederick are prominently connected with the work on this subject.