

The pulse is always disturbed during the attack of pain. It may be either increased or decreased in frequency, more frequently the latter, and it is always very much weakened. During the intervals between the pains the weakened pulse may be the only indication of trouble, though even this may improve if attacks of pain are not severe or close together. If vomiting has occurred the pulse remains weak. The weakness of the heart is in striking contrast to the preservation of muscular strength of the body generally. In a recent case, though for nearly twelve hours before death no pulse could be felt at the wrist, the child almost up to the end would at times raise up in bed in spite of the attendant, in her efforts to breathe more easily. The mind almost always remains clear to the end.

The points to which I wish particularly to direct attention to, and elicit discussion on, are the epigastric pain and the vomiting.

On more than one occasion I have found it difficult to get the friends to believe that the danger was as great as I represented, where a convalescent patient had what they called "colic," and whom I found, perhaps quite bright and content but with a weaker pulse of increased or decreased rapidity and perhaps a slight tendency to vomit. So much have I been impressed with the association of these symptoms that I have come to regard the occurrence of abdominal pain in diphtheria as an almost hopeless sign, even before the occurrence of vomiting and cardiac disturbance.

In three instances there was pain in the stomach before convalescence was established, but with little other disturbance. In two of these the pain recurred during convalescence, but before the patients were out of bed, this time having the other symptoms as already detailed. One of these proved fatal in two days, the other recovered after a tedious convalescence of three months duration, weakness of the heart being very marked and at times alarming. In the third case there was no recurrence of pain but the heart remained weak for several weeks, during which time the boy was confined to bed. These two recoveries are the only cases which terminated favorably out of eight having the symptoms I have referred to.

In one case a poorly nourished child, of about three years, had epigastric pain about the end of the first week of the disease but nothing was apprehended from it. Owing to general weakness it was kept in bed for a much longer time than usual, and was under observation in the hospital for some time further. Within a week after going home it dropped dead while running to the window to see the fire-reels passing on the street. As I have already said the literature on the subject is unsatisfactory. E. W. Goodall, *Encyclopedia Medica*, in