

due to the extension of the ulcer, or (*b*) as a result of the healing of the ulcer there may be formed a certain degree of cicatricial contraction which in itself will constitute an obstruction.

3rd. In order to overcome this obstruction the remaining portion of the stomach musculature will become hypertrophied.

4th. This is certain to be followed by muscular exhaustion and relaxation, and this will result in gastric dilatation.

5th. No sooner had this occurred, than the pyloric obstruction is still further increased by the fact that the lower margin of the greater curvature is depressed far below the level of the pylorus, and all of the food must not only be forced through the already obstructed pylorus, but it must also be elevated to the level of the latter aperture.

The fact that in the normal stomach every portion is drawn to a higher level than the pylorus, as the organ is forcing its contents into the intestine, has been shown very beautifully by Bettman, and more recently by Cannon.

6th. In the meantime, another condition has arisen which will prevent healing. The obstruction, together with the sacculation, gives rise to the accumulation of residual food in the dilated stomach, which undergoes decomposition in place of digestion. In this manner, all of the fresh food is vitiated by being mixed with the decomposed residual food remnants in the stomach. In this manner, each successive condition makes the previous state of things more grave. In the meantime, two other conditions have arisen which will serve to prevent the tendency of healing in the ulcer.

7th. Almost immediately after the beginning of a gastric ulcer, a great amount of mucus is secreted, apparently to protect the diseased surface. This, however, causes the food to become coated, and this in turn interferes with gastric digestion. This condition is followed gradually by the secretion of an increased amount of hydrochloric acid, which is undoubtedly the physiological remedy for facilitating the digestion of food covered with mucus. With the increasing acidity of the stomach contents, the chances of healing of the ulcer is greatly reduced, and its extension is practically certain, hence each one of the conditions in turn becomes more and more exaggerated, and conditions go from bad to worse, unless a radical change is established whether by internal treatment, or if this prove ineffective, by surgical operation. I have had an opportunity to verify these clinical observations in a very large number of patients suffering from gastric ulcer,