

The rats were killed 15 hours later and acidity, pepsin activity and pH of gastric fluid and rate of development of peptic ulcers were compared in the 2 groups. The experiments revealed that the pepsin-inhibitors did not influence the acidity and that the sulfated polysaccharides did not greatly inhibit pepsin activity of human gastric fluid. On the other hand, pepstatin inhibited it almost totally for 60 minutes. In Shay rats, however, the polysaccharides and pepstatin were not much different and it was pepstatin which tended to lower pH.

Thus, we concluded that the sulfated polysaccharides elevated PH and combined with gastric fluid protein, thus protecting gastric wall from pepsin, and that pepstatin had more direct pepsin-inhibitory activity.

(16) STUDY ON DOUBLE CONTRAST METHOD ON THE ANTERIOR WALL OF THE STOMACH—FOR SIMPLIFICATION—

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The X-ray diagnosis of the stomach has been greatly developed theoretically and technically due to development of the double contrast method, but the diagnosis of the anterior wall is so difficult that only precise examination has been performed by some experts. The authors have studied a simple method for double contrast of the anterior wall, which is reported hereinafter.

The kind, concentration and amount of barium to be used are similar to those employed in the double contrast method on the posterior wall, but it is of a little better grade in a slightly less amount. The amount of air is a little more from 100c. c. to 600c. c.. It is recommended to use an X-ray apparatus of over tube.

As pre-treatment, spasmolytica is injected. A belt is put around the waist of a patient for preventing him from slipping down from the bed, and is fixed to the bed at the foot.

For the routine examination of the whole stomach, air is added further for the double contrast method on the anterior wall after performing the method on the posterior one.

A patient is laid in a prone position, and inclines by about 60° from the standing position, by 110° at the second oblique position, followed by returning to the original position as inclining by 130°; the patient is kept at the first inclining position, and after reducing the incline degree, observed at 30° in the front view, at the first oblique position, the second oblique position and the standing position. (The degree of incline is varied depending on the patient.) The patient is observed by taking photographs at each incline position and other good positions as seen by fluoroscope.

For precise diagnosis of the anterior wall, the double contrast diagnosis is first performed and then the amounts of barium and air are adjusted and the compression is controlled.

As a special examination, there can be performed double contrast method on the angle, greater curvature and lesser curvature from the front of the body with the heavy oblique at the second oblique prone positions.