

FROM THE UNIVERSITY SURGICAL CLINIC AT BRESLAW
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AN OBSERVATION ON A PECULIARITY OF THE CARDIAC OPENING REFLEX IN OPERATED CASES OF CARDIOSPASMUS

BY

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The following paper is based on 17 cases of cardiospasmus treated in the University Surgical Clinic at Breslaw during the last 30 years. Of these, 8 received conservative and 9 operative treatment. With one exception, the condition of the cases treated conservatively, i. e., without operation, remained unchanged.

In the series of operated cases 2 died, one of postoperative peritonitis and one later, the cause of death being unknown; the condition of 2 was improved; of 4, much improved, and one patient was cured.

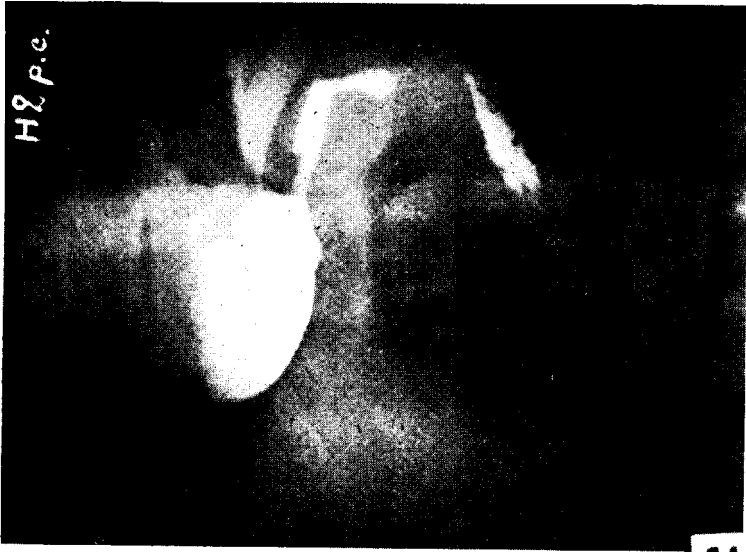
By 'improved' is meant that the general condition of the patient is so benefited as to allow light suitable occupation entailing no stooping, but with the persistence of occasional vomiting and the delayed emptying of the oesophagus.

By 'much improved' is understood an ability for full work and an almost entire absence of subjective symptoms, but the persistence of a certain demonstrable delay in the passage of food from the oesophagus.

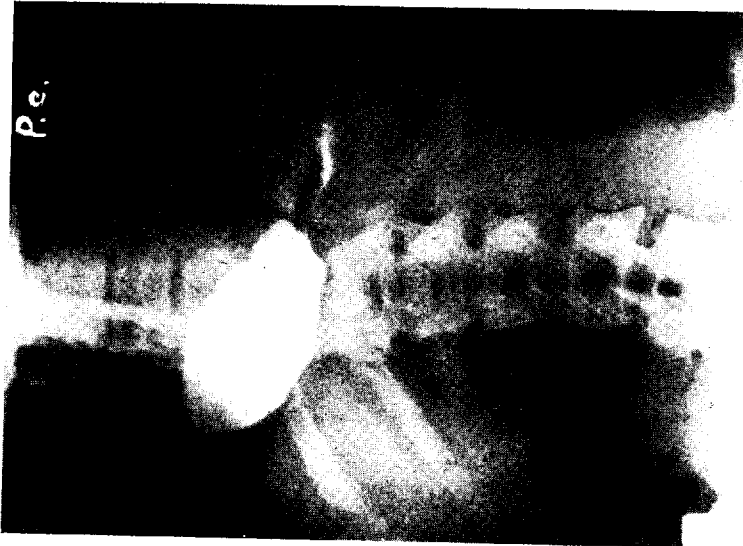
'Cured' denotes a total absence of subjective symptoms over a period of 3 years, with no demonstrable anatomical disturbance.

Of the operated cases, 6 have been personally examined. We have made interesting observations on the abnormal cardiac reflex in the following 4 of these 6 cases.

Case 1. — W. H., male, aged 47, who had symptoms of severe chronic cardiospasmus of 3 years' duration, was operated upon by Mikulicz in 1904. Dilatation of the cardia was performed by the aid of Henle's balloon bougie method, the stomach being observed through a laparotomy incision. The patient is up to the present satisfied with the result of the operation; he is capable of full occupation, and has gained in weight. He is still, however, aware of certain disturbances, namely that sometimes coarser foods are 'held up' at the cardia. If he then swallows a mouthful of water, he at once feels the onward passage of the food into the stomach.



Skgr. 2.



Skgr. 1.

Barium Screen examination has fully justified his satisfaction.

Skiagram 1 shows the greatly dilated and lengthened oesophagus which only permits of the passage of a small quantity of Ba gruel after 2 hours (Skgr. 2).

Skgr. 3 demonstrates the effect of a mouthful of water. We see that the oesophagus immediately empties itself. The two lower snap skiagrams show the closed cardia, the two upper the passage of the gruel during the act of swallowing the water.

That this is not due to a dilution of the originally thin gruel, together with a subsequently mechanically facilitated passage, is obvious. The swallowing was followed so rapidly by the voluminous emptying of the lower segment of the dilated oesophagus that a mixing of the water with the gruel is hardly probable.

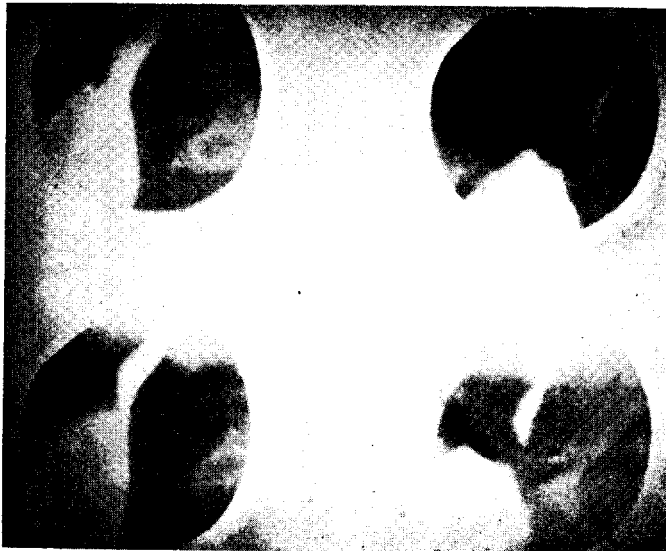
Case 2. — S. M., male, aged 48, received conservative treatment in this Clinic in 1928 and later from Prof. Gottstein; and in Jan. 1930 was operated upon by Prof. Gottstein. Although the patient is entirely pleased with the result of the operation (Heller's op.), we also find in this case a large 2 hours' oesophagus rest. Observation for a period of 10 mins following an intravenous injection of 0.01 cc 1/1000 Adrenalin Hydrochloric solution showed no passage of the gruel. A considerable relaxation of the cardia and evacuation of gruel followed at once on the swallowing of water. The two lower snap Röntgenograms (Skgr. 4) show the tightly closed cardiac ring, and the two upper the considerable opening following upon, or rather occurring still during the act of swallowing.

Case 3. — H. P., female, aged 34, on whom Heller's op. was carried out in 1925. The operation did not cure her condition, and a complete 3 hours' retention of Ba in an enormously dilated oesophagus can be demonstrated on X-ray examination (Skgr. 5). Although she says she feels an emptying of the oesophagus on drinking a mouthful of coffee, an attempt to establish the truth of this was without success, which she attributes to the unappetizing nature of the coffee. In this case, however, a slight passage of gruel through the cardia occurred following the intravenous injection of Adrenalin (Skgr. 6, lower left snap photo).

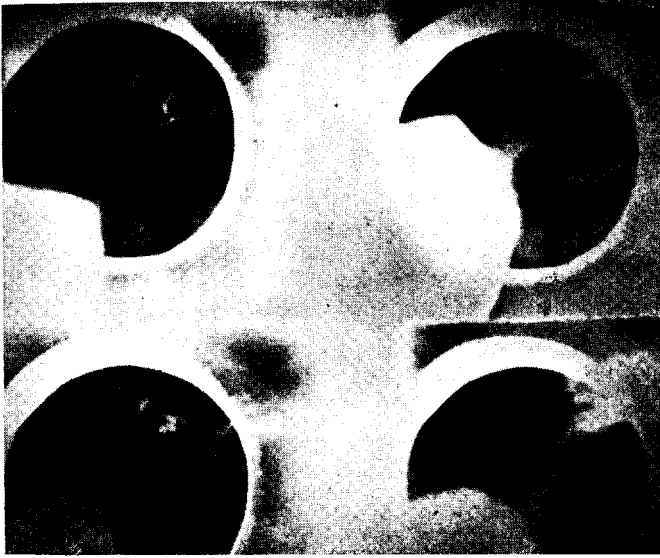
Case 4. — F. H., male, aged 20, on whom Heller's operation had been performed 4 years previously, when the muscle of the cardia was not hypertrophied. Skgr. 7 shows the moderately



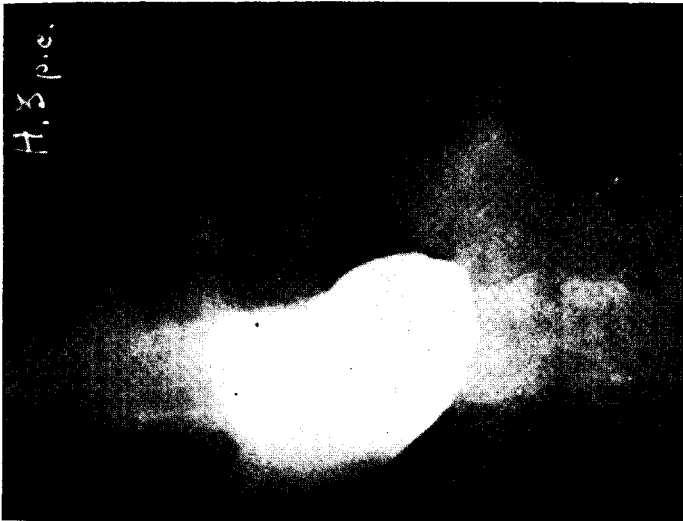
Skgr. 4.



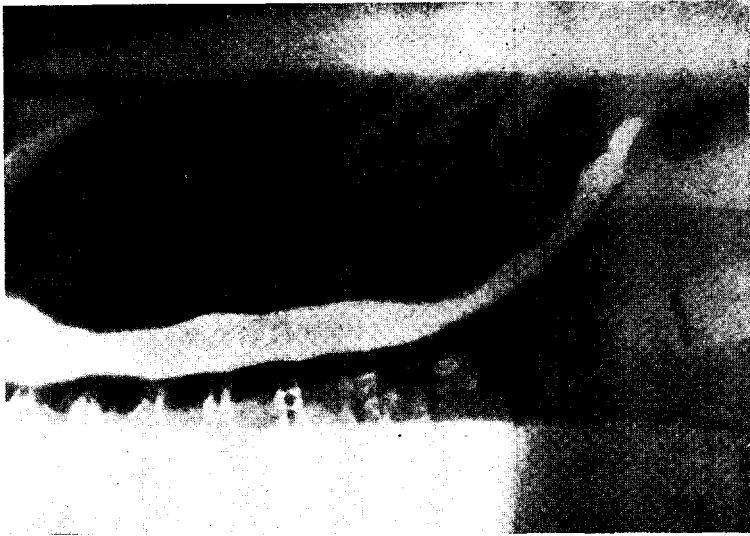
Skgr. 3.



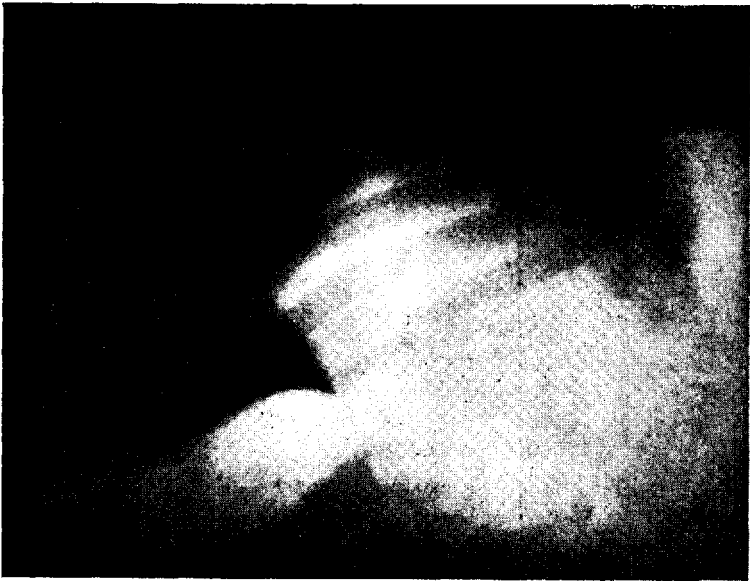
Skgr. 6.



Skgr. 5.



Skgr. 8.



Skgr. 7.

dilated oesophagus before the operation, and Skgr. 8 the present state while drinking. The oesophagus was empty after a few minutes.

The effect of a mouthful of water in these cases impresses on us the fact that a psychic reflex component plays an important role, and that a mechanical dilution of the completely medium-thick mixed Ba gruel by the water is insufficient to explain the emptying.

The second patient, for instance, explained the emptying as caused by the pressure exercised by the water drunk, which, however, is highly improbable when the greater weight of the gruel is considered.

Nevertheless, especially in cardiospasmus, it is only with great caution that we can arrive at conclusions as to the nature of the disease from observation of the subjective and objective effects of any therapy.