PYLORIC STENOSIS OF CONGENITAL TYPE ASSOCIATED WITH TETANY IN A WOMAN OF 68

BY

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Hypertrophy of the pyloric sphincter is rare after infancy. Walton, in *The Surgical Dyspepsias*, mentions four reported cases and two of his own, in which "the pathological change was identical with that of congenital pyloric stenosis." His patients were aged 50 and 58; those in the reported cases were younger. He believes that the condition dates from infancy, when it is probably slight, but gives rise to obstruction in later life, when the gastric compensation fails. The association of tetany gives additional interest to the case now reported.

CASE RECORD

Mrs. G., aged 69 (1932), believes that she was a healthy, breast-fed infant, and that she had no infantile vomiting; she was one of a family of six, and was said to be "the best of the lot" as regards health. From the age of 15 she had periodical "sick headaches," which began with excessive salivation and ended with vomiting. They were apt to be precipitated by excitement, anxiety, or nervousness, as, for example, by the prospect of a dance or party. She married at 28, bore three healthy children, was never ill (though she considers that she has always been nervous), but remained subject to these "sick headaches."

In 1916 or 1917, when she was about 53, the "sick turns" became more severe, and after one period of vomiting lasting five or six days, "cramps" in the arms and legs came on, and were so painful that a doctor was sent for in the middle of the night. Similar attacks, followed by "cramps," occurred about once a year until, in April, 1924, she was seen by the writer. After four or five days of nausea, vomiting had begun, and continued unceasingly for five days, when, fearing the onset of "cramps," the patient sent for help late one evening. She looked thin, haggard, and dehydrated; the eyes were hollow, the cheeks sunk, the tongue coated with thick brown fur. Retching was incessant and distressing; the bowels had acted; the temperature was subnormal, the pulse rate 120 per minute, and the blood pressure 125/75 mm. Hg. The abdomen was retracted, and there was some rigidity and slight tenderness in the epigastric region just to the right of the umbilicus. The urine contained a heavy deposit of urates, but no albumin or sugar. After two days—that is, seven days from the onset of the vomiting—the patient began to recover. She felt hungry, was able to take quantities of fluid, and rapidly regained health and strength. No tetany occurred in this attack, which appeared to yield to the administration of opium and chloroform. She was advised to take parathyroid and calcium lactate, and did so fairly regularly.

The next attack occurred in February, 1925. After a week of retching and vomiting, "cramps" supervened, and she was seen in a typical spasm of tetany. The hands were in the accoucheur's position, with the adductors and long flexors of the thumb tightly concentrated; the Achilles tendons were taut, and the calf muscles hard. The patient was evidently in great pain, which was relieved by an injection of morphine and atropine. The general condition was the same as in the preceding attack, with the addition of a resonant swelling in the left hypochondrium corresponding to the position of the stomach. Glucose, parathyroid, and calcium lactate were administered; on the following day a second attack of tetany was checked by an injection of morphine and atropine, and on the third day (tenth from the onset) the patient began to recover.

Shortly after this she was admitted to the London Hospital, under Dr. Hutchison, for investigation. The Wassermann reaction was negative, the gastric acidity low, and the blood alkali normal. X-ray examination was equivocal, showing some anomaly of the duodenum, but no evidence of ulcer. Mr. Sherren considered that there was not enough

evidence to justify exploration. The patient continued to take 5 grains of calcium and 1/20 of a grain of parathyroid three times a day, but vomiting, followed by mild tetany, occurred in August and September, 1925. In October, 1925, she had an atypical attack; vomiting was not excessive; tingling of the fingers and a gripping pain in the chest preceded the usual cramps in the hands and arms; the systolic blood pressure was barely 100 mm. Hg. A month later a general puffiness, thought to be a toxic oedema of unknown origin, was followed by the passage of large quantities of pale urine.

In March, July, and September, 1926, attacks of vomiting, with tetany of the hands only, occurred. In December, 1926, the patient began to take calcium and ammonium chloride (5 grains of each) three times a day, and thereafter had no tetany, though severe vomiting occurred in June, August, September, 1927, and June, 1928. After this the attacks became less severe until December, 1930, when the patient vomited continuously for eleven days, in spite of treatment (morphine, atropine, glucose saline) begun on the fifth day. Resistance in the right hypochondrium was noted on the seventh day; the urine contained large quantities of acetone, but no sugar or albumin; the blood calcium was 9.6 mg. per 100 c.cm., and no tetany supervened. The attack seemed to cease spontaneously, leaving the patient greatly exhausted and reduced in weight to 5 st. 10 lb. (normal weight about 7½ to 8 st.). She did not look "toxic," and began, as usual, to recover rapidly.

In February, 1931, she was again admitted to the London Hospital under Dr. Hutchison, who transferred her to Mr. Walton for laparotomy. He reported as follows: "There was very marked hypertrophy of the pyloric sphincter, with some distension and hypertrophy of the stomach behind, but no trace of any ulcer. I divided the pylorus longitudinally, and this revealed a good deal of hypertrophy of the muscles, with the general characters of a congenital pyloric stenosis, but of a milder degree." A wide pyloroplasty was performed.

It is now over a year since the operation, and the patient has made a perfect recovery. She is plump, and has a placid, comfortable appearance, instead of the thin, anxious look of former days. She weighs 8 st. 13 lb. She always considered that these severe attacks were, like her sick headaches in youth, brought on by "worry," but during the past year she has been extremely anxious about the health of her son and her granddaughter, and has had no gastric symptoms of any kind.

The chief points of interest in this case are: first, the condition of simple pyloric hypertrophy without previous ulceration in an elderly woman; secondly, the dramatic attacks of tetany; thirdly, the cessation of the tetany while the patient was taking calcium and ammonium chloride; lastly, the complete cure by pyloroplasty.

Memoranda

MEDICAL, SURGICAL, OBSTETRICAL

THE "GLOVE-BATH": A METHOD OF TREATING RHEUMATIC AND OTHER AFFECTIONS OF THE HANDS AND FEET

In the treatment of pain and stiffness associated with rheumatic and other conditions of the hands and feet, the application of heat by means of hot air, vapour, paraffin wax, mud, electric radiation, or diathermy is usually adopted. As practically all these measures require some kind of special apparatus, which is not always available, I find equally good results can be obtained by the following simple and easily applied method, which can be carried out wherever there is a supply of running hot water.

The hands, enclosed in rubber gloves—a few sizes too large—or the feet encased in rubber socks that reach half-way up the calf, are immersed in hot water maintained at a temperature of from 105° to 110° F. for twenty