CASE REPORTS

ACUTE AND CHRONIC GASTRIC ULCERS IN AN INFANT

BY

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(WITH POST-MORTEM REPORT BY A. GORDON SIGNY, M.B., B.S.)

The possible occurrence of peptic ulcers in infancy should be borne in mind when a marasmic infant fails to improve although there is not sufficient evidence of an infection in the gastro-intestinal tract. Franklin (1942) describes well the puzzling gastro-intestinal symptoms in this type of case. Guthrie (1942), in a report on cases with a review of the literature, states that marasmus is the condition most frequently associated with peptic ulcers in infants past the neonatal period.

This case is reported because few have so far been described in this country; Paterson (1922), reporting on two cases, states that in the previous twenty years there was only one case in the literature. In the present case it is of some interest that during the life of the infant peptic ulceration was recognized as being the most probable diagnosis; and treatment to promote healing was instituted without, however, a successful result.

Case report. S. E., a male, aged eight weeks, was admitted to hospital on February 28, 1945. The birth weight was 6 lb. 8oz., and there had been a normal delivery. The child had been breast-fed for two weeks, but this was then discontinued owing to breast abscesses. He was put on a dried milk half cream mixture for one week, but he vomited almost every feed. He was then changed to another brand of half cream dried milk for another week, whereupon he vomited less. However he continued to show malnutrition and loss of weight, so the feed was changed to a sweetened condensed milk; but vomiting continued, and on the day previous to admission some dark blood was present in the vomit.

ADMISSION. On admission the child weighed 5 lb. 15 oz., showing gross wasting but no dehydration. He was put on to half strength Hartmans' solution for twenty-four hours; then sweetened condensed

milk was gradually introduced. In the first ten days he had only one day of vomiting, and his weight increased to 6 lb. 4½ oz.

MARCH 3. Twelve days after admission, vomiting became persistent again. Gastric lavage showed a residue of two ounces and some mucus present.

MARCH 7. Vomit became bloodstained, and gastric lavage still showed two ounces residue, with altered blood clot present. The child passed two 'tarry' stools. He was given vitamin K.

MARCH 8. Both ear-drums became pink; bilateral myringotomy was performed, but only blood was obtained.

MARCH 9. Bilateral mastoidectomy was performed, but mucoid fluid only was present in both mastoid processes. After this the child was given intravenous drip transfusion of 5 oz. of blood. The following day he had improved but the stools were still 'tarry.' Vomiting continued, with altered blood still present.

MARCH 11. He became more anaemic, and was given an intravenous blood transfusion of 5½ oz.

MARCH 15. Hb was 104 per cent., but vomiting still continued with altered blood present.

MARCH 26. Hb was 45 per cent., and 20 c.cm. of blood was injected into each buttock, followed on the next day by a further blood transfusion of 5 oz. Bleeding still continued, however, and it appeared now certain that we were dealing with a case of bleeding peptic ulcer. During the whole of this time the weight had very slowly increased, having now reached 7 lb. 2 oz. The feeds had been gradually changed from a sweetened condensed milk to a 2:1 cow's milk mixture with the addition of an ounce of dextrimaltose daily. With the probable diagnosis of a bleeding peptic ulcer, olive oil and kaolin were given before alternate feeds in ¼-drachm doses. Intramuscular injections of crude liver extract were also given three times weekly in doses of 0.5 c.cm. With these measures the weight slowly increased to a maximum of 7 lb. 13 oz. on the tenth week of

admission, but the infant never seemed happy and continued to have occasional vomits containing altered blood.

APRIL 4. Hb had dropped to 51 per cent. Wassermann reaction was negative. Kahn negative.

APRIL 9. An intravenous transfusion of 5 oz. of blood was given.

APRIL 27. Hb was 50 per cent.

APRIL 30. A further blood transfusion of 5 oz. was given. During the eleventh and twelfth weeks, however, vomiting of blood increased and stools became more 'tarry.'

MAY 6. The infant collapsed and died.

Investigations				
DATE			Hb	BLOOD
			Per cent.	TRANSFUSION oz.
March 9	..	..	—	5
" 11	..	..	—	5½
" 15	..	..	104	—
" 20	..	..	83	—
" 26	..	..	45	—
" 27	..	..	—	5
April 4	..	..	51	—
" 9	..	..	—	5
" 13	..	..	97	—
" 27	..	..	50	—
" 30	..	..	—	5
May 5	..	..	54	—

MAY 8. Necropsy was performed by Dr. A. Gordon Signy. The body was that of a male infant fairly well nourished. There was some brownish blood in the mouth and nares and in the oesophagus. The stomach (fig. 1) measured 16 cm. from the cardia to the pylorus. It was filled with brown, altered blood mixed with fresh, partially clotted blood. On the gastric side of the pylorus there was a deep ulcer

measuring 3½ cm. by 2 cm. forming a deep crater with a somewhat overhanging edge. This was filled with blood. Half way up the stomach on the lesser curvature there was a large acute ulcer with thin, undermined edges, measuring 20 mm. by 18 mm., which had almost perforated through the muscularis. Immediately adjacent to it towards the cardia there was a small healing ulcer measuring 16 mm. by 8 mm. and a further minute one measuring 4 mm. by 2 mm. The last two had only destroyed the mucosa and had not penetrated deeper. A further healed ulcer was lying between the two large ones and measured 10 mm. by 8 mm. The cardia was free from ulceration. The duodenum, small gut, and ascending colon all contained obvious blood in various stages of alteration. No other abnormality of the gastrointestinal tract or any other organ was found. Unfortunately permission to examine the brain was not granted.

Histological examination of the mucosa showed a simple ulceration of the mucosa with lymphocytes and a few plasma cells infiltrating the submucosa and muscular layers of the adjacent mucous membrane (figs. 2, 3, and 4, p. 63).

Summary

A case of acute and chronic gastric ulcers occurring in an infant is reported in detail, the interest being that the condition was recognized during the infant's life.

REFERENCES

- Franklin, A. W. (1942). *Arch. Dis. Childh.*, 17, 95.
Guthrie, K. J. (1942). *Ibid.*, 17, 82.
Paterson, D. (1922). *Lancet*, 1, 63.

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