A Gastrochisis with Antenatal Evicretion of Entire Liver, Intestine and Stomach

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ABSTRACT
This is a 1.5 Kg female baby delivered in the department of Obstetrics and Gynecology of Severance Hospital with normal spontaneous vaginal delivery at 32 weeks gestation period. In delivery room they noticed evicretion of the entire liver, small intestine and stomach through an abdominal wall defect above umbilicus without a covering membrane. Umbilicus was normally inserted at the inferior margin of the abdominal wall defect. This anomaly was diagnosed as Gastrochisis after reviewing the literature. This is the first case report of Gastrochisis in Korea.

INTRODUCTION
Gastrochisis is a rare congenital malformation in which the abdominal viscera protrude through a defect in the anterior abdominal wall. The incidence of this anomaly is not well established since most cases were reported as ruptured omphaloceles until the characteristic paraumbilical location of the abdominal defect was described by Moore and Stokes in 1953.

This is the report of the first case of which we have observed, including an autopsy examination and literature review.

CASE REPORT
A Korean female child was born to a 23 year
old gravida 2, abortion 1, para 0, Rh-positive mother on October 12, 1969 by spontaneous vaginal delivery. The pregnancy was of 32 weeks gestation without any illness. No drug was taken during pregnancy. First pregnancy was terminated spontaneously at 3½ months with unknown cause. At birth the infant breathed and cried spontaneously; the Apgar score was 6 at 1 minute, 8 at 5 minutes. There was a supraumbilical defect about 6 cm in diameter through which almost the entire liver, small and large intestine and stomach protruded. The bowel was not covered by a membrane and edges of the defect were smooth and 2-3 mm of full thickness. Umbilical cord was intact and inserted normally at the inferior portion of the abdominal wall defect. The liver was globular shaped and covered with yellowish exudate. The intestine was distended, edematous and congested. Also the stomach was distended and congested. The rest of the physical examination was normal. (Fig. 1)

Gangrenous changes appeared several minutes after birth. Surgical repair was tried but failed because the abdominal cavity was too small in comparison with the evicreted organs. She died 21 hours after birth inspite of intensive treatment.

Autopsy was performed immediately after death, no other congenital anomaly was found except the abdominal cavity was too small to contain the evicreted mass of viscera.
DISCUSSION

Gastroscisis has been differentiated from ruptured omphalocele by Moore and Stokes (1953) who noted the extraumbilical location of the abdominal defect, the absence of a covering sac, and the normal insertion of the umbilical cord.

Duhammel (1963) described the gastroscisis defect as the result of a failure of localized differentiation and subsequent resorption of embryonic mesenchymal sheets in the closure of the anterior abdominal wall during the third week of embryonic life. The umbilical cord is located commonly to the left of the herniated defect. Approximately half of the reported infants with this malformation were born prematurely. The defect size varied from 2.5 cm to 15 cm. (Moore, 1963).

Emergency surgery is needed as soon as possible after birth at which time a primary covering of the evicerated organ is made by a skin flap. A second complete operation is done usually at 9 months to 12 months of age when weight is increasing satisfactorily. (Ament and Fonkalsrud, 1967). Despite modern operative techniques, the mortality with gastroscisis remains above 50 percent (Hutchin, 1965). With our patient, surgical intervention was tried but failed because the abdominal cavity was too small in comparison with the mass of evicerated organs.

According to Moore (1963) our case belongs to the antenatal type, because yellowish exudate covered the surface of the liver at the delivery time and the abdominal cavity was too small to contain evicerated organs.

REFERENCES


