Proceedings S. Z. P. G. M. I. Vol. 1 (1987), pp. 32–33

Neonatal Surgical Problems

SAJID MAQBOOL
Department of Pediatrics, Shaikh Zayed Hospital

Although neonatal surgical problems fall in the realm of the surgeon specializing in Pediatric surgery, the first medical specialist to confront initial stages of these problems is the Pediatrician. It is imperative therefore that the Pediatrician be able to recognize the symptoms that point to an underlying surgical condition. An early recognition prompts a proper referral and thus a good prognosis. In the following article some of the early symptoms will be highlighted.

1. Polyhydramnios

A pathologic accumulation of amniotic fluid more than 2 L may be associated with diabetes mellitus, erythroblastosis fetalis and multiple pregnancies. Howerver it is esophageal atresia which prevents normal swallowing that needs to be considered as the primary reason.

Other causes include:

(a) G. I. obstruction
(b) Abdominal wall defects (omphalocele, gastroschisis)
(c) Diaphragmatic hernia

2. Excessive Mucus and Salivation

An alert Pediatrician should be able to recognize that excessive mucus & salivation before the neonate receives his first feed usually points to the diagnosis of Esophageal atresia and an early diagnosis will avoid unnecessary complications.

3. Vomiting

Vomiting in the neonatal period is a symptom of many diseases. The etiology may be as diverse as septicemia on the one extreme and inappropriate feeding technique on the other. However in a neonate with vomiting, underlying surgical conditions must also be kept in mind, specially if persistent, accompanied by a gastric aspirate of 15 ml or more, distension and absence or delayed passage of meconium. Another factor that needs to be kept in mind is whether the vomiting is bilestained or not. Bile-stained vomiting is considered more readily a symptom of G.I. obstruction.

The underlying etiology includes:

(A) Bile-Stained:

(a) Atresias-duodenal, jejunal, ileal, colonic
(b) Malrotation with or without volvulus
(c) Annular pancreas
(d) Hirschsprung's disease
(e) Peritoneal bands
(f) Aberrant superior mesenteric artery
(g) Preduodenal portal vein

If the vomiting is not bile-stained, the following should be considered:

(B) Non-Bile-stained:

(a) Pyloric stenosis
(b) Upper duodenal stenosis
(c) Annular pancreas

4. Distension

Distenstion, elicited clinically and confirmed radiographically signifies G. I. obstruction.

5. Failure to Pass Meconium

Delayed passage of meconium (more than 24 hours) may imply surgical conditions like Hirschsprungs disease. The obvious entity of imperforate anus should also not be missed.

6. Hematemesis and Bloody Stools

Both blood in the vomiting and the stools may point to a surgical condition and the causes include:

(a) Gastric and duodenal ulcers
(b) Duodenal stenosis
(c) Meckel's diverticulum
(d) Duplications of small intestine
(e) Volvulus
(f) Intussusception
(g) Polyps, hemangiomas

7. Scaphoid Abdomen

An unusnally flat abdomen, especially in association with tachypnea implies a virtual diagnosis of Diaphrag-

matic Hernia which can easily be confirmed by a promptly taken chest X-ray. Early surgical intervention is mandatory

8. Abdominal Masses

Almost all masses in the obdomen require surgical intervention and the breakdown includes:

(A) G.U. ANOMALIES:

(a) Posterior urethral valves
(b) Renal vein thrombosis

(B) TUMORS:

(a) Neuroblastoma
(b) Wilm's
(c) Teratomas
(d) Others i.e. hepatomas, hepatoblastoma, hamartoma, nephroma

9. Meconium Peritonitis/Pneumoperitoneum

This generally implies G.I. obstruction Pneumoperitoneum may result from:

(a) Perforated stomach
(b) Perforated Meckel's
(c) Perforated appendix

10. Respiratory Distress

Although the vast majority of causes of respiratory distress are non-surgical, the following must be kept in mind also:

(a) Choanal atresia
(b) Laryngotracheal clefts
(c) Esophageal atresia with or without T.E. fistula
(d) Diaphragmatic hernia
(e) Congenital lobar emphysema
(f) Cystic adenomatoid malformation of lung

11. Cyanosis

Cyanosis may be a symptom of respiratory, nervous system, or metabolic problems but the bulk of cases of central cyanosis result from Congenital heart disease, early recognition of which will avoid many complications.

REFERENCES

1. COHEN M.D *Pediatrics,* 1982; 69: 587-590

2. GALE, G.B., *Pediatrics,* 982; 70: 409-414.

3. WILSON, D.A. *Am. J. Dis. Child* 1982; 136: 147-150.

4. DELEZE, G. *Pediatrics,* 1977; 59: 647-654.