CONGENITAL INTESTINAL OBSTRUCTION

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Intestinal obstruction in newborn infants is caused by a variety of congenital anomolies and leads to the death of the infant within the first week of life if not treated surgically. The causes of such intestinal obstructions may be an atresia of the oesophagus ,a diaphragmatic hernia, an annular pancreas, malrotation of the colon with volvulus of the midgut, peritoneal bands mostly compressing the duodenum, internal or mesentericoparietal herniations, muconium ileus, agauglionic megacolon, atresia of the bowel and imperforate anus. Of all these a short summary of the first and last causes will be given.Congenital atresia of the oesophagus and tracheo-oesophageal fistual are among the most common anamolies encountered in the newborn infant. In the great majority of anomilies, the upper portion of the oesophagus ends as a blind pouch at the level of the second thoracic vertebra, and the lower segment of the oesophagus enters the trachea just below its biforcation.

The symptoms are noted soon after birth, and the patient seems to produce an excessive amount of saliva accompanied by spells of choking and cyanosis, which increase with the attempts to feed the infant.

Roentgen examination will establish the diagnosis. The exact location of the obstruction may be determind by introducing a rubber catheter under fluoroscopic control; and may be visualized by instillation of an appropriate contrast medium.

Pediatricians and obstetricians must be alerted to these anomolies because symptoms will be observed soon after birth. The patient should be kept in the incubator which provides for an influx of oxygen (cont), controlled temperature and humidity. A soft rubber catheter should be introduced into the pharynx for constant suction. Slight Trendelenburg position will facilitate aspiration of the mucus. Intravenous feeding of a 5 per cent solution of dextrose in distilled water is mandatory to maintain or restore the infants' nutritional status, so that an operation, the only rational treatment, may be performed at the earliest possible moment.

IMPERFORATE ANUS

Normally, by the eighth week of embryonic life, the cloacal membrane, which separates the rectum and the anal invagination is absorbed, so that the anus and rectum become one continuous canal. When this membrane fails to rupture and be absorbed an imperforate anus results. Several

varieties of this condition have been observed and it is importan tto recognize which type prevails in a given case because of the different surgical approaches in the repair of the anamoly.

In type I a thin membrane covers the anal opening; Type 2 and 3 the distance between the end dimple and the blind pouch of the rectum or colon, respectively, is less or more than 1.5 cm. In type 4 and rarest, a normal anus and rectal canal end in a blind pouch a few centimeters proximal to the sphicnter i.e. an atresia of the rectum. Associated with imperforate anus may be a variety of fistalue into the bladder, urethra or vagina according to the sex of patient.

Diagnosis can be made by careful observation. The babies buttocks should always be spread apart and the anal orifices inspected. If no meconium is seen, a thermometer, finger or soft rubber catheter should be inserted to ascertain the patency of the anus and to rule out the rare atresia of the rectal canal. The distance between the blind rectal pouch and the anal dimple can best be determined by X-ray studies, making use of the swallowed air to give roentgenographic contrast of the blind pouch with the infant held by his heals and an opaque object marking the location of the anal dimple. Suction drainage by means of a catheter placed in the stomach should be instituted after birth as a precaution against excessive distention, coupled with intravenous feeding; and early surgery according to the variety.

SURGERY FOR NEWBORN

In many instances of congenital intestinal obstruction surgery is essential within the first 24 hours after delivery. Under ordinary circumstances a new born infants is an excellent operative risk and remains so during the first 48 hours, but its general physiologic reserve starts to diminish gradually and rapidly thereafter. Thus the earliest diagnosis and immediate efforts to correct the anatomic anamoly are of the utmost and in many cases of lifesaving, importance. Only in some advanced cases, in which the correct diagnosis has not been made before onset of deterioration of the general status of the infant, delay of a few hours to permit administration of fluids and plasma, while the baby is kept in an atmosphere of high oxygen concentration may increase the chances of survival.