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Answers to Medical Quiz

A1. Coiling of the nasogastric tube in the upper esophageal pouch and gasless abdomen.

A2. VACTERL syndrome.

A3. Isolated esophageal atresia.

DISCUSSION

Esophageal atresia is a rare variety of congenital anatomic defects, which are caused by an abnormal embryological development of the esophagus[1].

Five types of esophageal atresia and tracheoesophageal fistula have been described. The most common abnormality is esophageal atresia with a distal tracheoesophageal fistula (84%). Isolated atresia with no fistula is the next most common finding (8%), followed by H-type fistula (no atresia 4%). Esophageal atresia with proximal and distal fistulas (3%) and esophageal atresia with a proximal fistula (1%) are less common[2,3].

The diagnosis is suspected prenatally by fetal ultrasound in the presence of polyhydramnios, dilated upper esophageal pouch and failure to demonstrate fetal stomach. Postnatal, the diagnosis is confirmed by plain chest and abdominal X-ray with nasogastric tube in the upper esophagus[3,4].

Babies with isolated esophageal atresia are 50% preterm. Babies with esophageal atresia have Down's syndrome in 20% of the cases. Babies have one or more anomalies of VACTERL syndrome (vertebral, anal, cardiac, tracheo-esophageal, renal, limb) in 40% of the cases. About 20% of babies with esophageal atresia have associated tracheomalacia[5].

In isolated esophageal atresia, the gap between the esophageal ends is usually more than 3 cm or more than 3 vertebral bodies. This gap makes primary repair difficult and therefore, many cases required staged procedures[6].

Initial treatment of isolated esophageal atresia consists of continuous decompression of upper esophageal blind pouch and enteral feeding via gastrostomy and in some cases, esophagostomy is performed when neonatal setup is not optimum. After few months of initial treatment, esophageal end to end repair is the goal when the upper esophageal blind pouch is

intact. Esophageal replacement by colon, small bowel, stomach or gastric tube will be needed when the upper esophageal blind pouch was constructed as esophagostomy[6,7].

Infants with a birth weight less than 1500 g, major congenital cardiac abnormalities, severe associated anomalies, and a long esophageal gap are at an increased risk of poor outcome[7,8].

CONCLUSION

Esophageal atresia should be considered in the differential diagnosis in any case of newborn with excessive salivation.

Plain chest and abdominal X-ray confirm the diagnosis of isolated esophageal atresia postnatally.

Most cases of isolated esophageal atresia require surgical intervention as staged repair. The prognosis depends on severity of the associated anomalies, birth weight and the gap between the esophageal ends.

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