Congenital atresia of esophagus:

Incidence:
Is a relatively common congenital Mal- formation occurring in about one in (2500 – 3000) life births and usually associated with a tracheoesophageal fistula.

Etiology:
Remains unknown but the suggested factors are genetic, drugs, infection.
The majority of cases are sporadic non – syndromic. group are associated with chromosomal abnormality.
Familial / syndromic cases are extremely rare and are less than 1% of total.
Associated mal formation are present in about 50% of cases, the most frequent are musculo – skeletal, Cvs, G.I.T., genito – urinary.
It is important to be aware of this abnormality, because its recognition within forty – eight hours of birth and subsequent surgical correction, is the only hope of survival.
Classification:

A. Lower segment opens into the trachea this is the commonest type 85% of cases.

B. Upper segment opens into the trachea represent 2%.
C. Both segments open into the trachea; this represents 3-5% of cases.

D. Both segments end blindly and the mid oesophagus is absent. It represents 3-5% of cases.
E. tracheo–esophageal fistula without atresia. The so called H–type or N–type, represent 4%.

Clinical Feature:

The newborn baby regurgitates all its first and subsequent feeds. Saliva pours, almost continuously from its mouth. This is the sign of oesophageal atresia, it does not occur in any other condition. Attacks of coughing, choking and cyanosis occur on feeding, sign & symptoms of aspiration pneumonitis may be present. It should be suspected in all cases of hydraminos a condition which is present in 50% of cases of oesophageal atresia.

The diagnosis may be suspected prenatally by the finding of small or absent fetal stomach bubble on u/s study performed after the (18th) week of gestation.
Diagnosis

A No. (10–12) soft radioopaque catheter is introduced into the esophagus through the mouth, should an obstruction encountered about 10 cm. from the lip the diagnosis is practically certain. Contrast study is rarely needed.

The diagnosis of H-type fistula is often delayed & may present with history of recurrent pneumonia.

Pre-operative treatment:

Surgical intervention is urgent.

Aspiration pneumonia is nearly always present and antibiotic should be given, dehydration should be corrected, suction catheter is placed in the oesophageal pouch & patient put in incubator I.V Line and nothing by mouth.

Operative Treatment :-

1. primary repair: Birth weight, presence of pneumonia & associated anomalies play major role in determining survival.

2. initial gastrostomy & delaying primary repair specially for those tiny premature babies or those with pneumonia.

Post-operative complications :-

1. Dysphagia.

2. gastroesophageal reflux.

3. Stricture.

4. Major anastomotic leak or disruption.

5. Tracheomalacia.
**Congenital Diaphragmatic Hernia:**

Congenital hernia occur at certain well-recognised point due to failure of fusion of the various elements which make up the diaphragm which includes the septum transversum, pleuro peritoneal membrane, oesophageal mesentry, body wall mesoderm, through these points Herniation of an abdominal viscus through the diaphragm into chest.

**Incidence:**

1 in every (2000 to 5000) life births. Females infant are affected twice as often as males.

Associated anomalies: cardiac, pulmonary hypoplasia, pulmonary vascular abnormalities and chromosomal abnormalities.

**Types**

1. Postero-lateral diaphragmatic hernia commonly called Bochdalek hernia occur in 85% to 90% of hernia that seen in neonatal period.
2. Retrosternal hernia (morgagni) account for 2-6% usually occur to the right.
3. Hiatus hernia

**Clinical Presentation:**

Respiratory distress may be developed immediately after birth, tachypnea, grunting, chest retraction, pallor & cyanosis, scaphoid abdomen, bowel sounds may be present within the chest. Intestinal obstruction or bowel ischemia, volulus might be the presenting features.

**Diagnosis**

- CXR: presence of air and fluid-filled loops of bowel within the chest, mediastinal shift.
- Prenatally by U/S.
Treatment :-

- Resuscitation 02 , NG tube.
- IV Fluid, incubator.
  - Respiratory stabilization and care by ECMO
  - (extra corporal membrane oxygenation ) may be needed preoperatively and postoperatively .
- Surgical repair.

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