Answers to Medical Quiz

A1. Naso-gastric tube, endotracheal tube and umbilical vein catheter.

A2. Naso-gastric tube is coiled because of trachea-oesophageal fistula with oesophageal atresia.

A3. Tracheo-oesophageal fistula with duodenal atresia.

A4. It is positioned too far down.

A5. Respiratory distress syndrome of the newborn.

DISCUSSION

A tracheoesophageal fistula is a common congenital abnormality resulting from failed fusion of the tracheoesophageal ridges during the third week of embryological development.

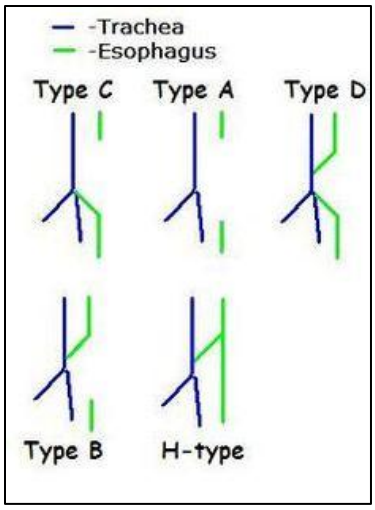

Figure 1: Classifications of Tracheoesophageal Fistula

It causes severe feeding difficulties and could cause severe pneumonia. Urgent surgical repair is required to allow adequate feeding[1].

Tracheoesophageal fistula has a wide array of associated anomalies, most commonly the VACTERL anomalies association, which might affect many organs, including vertebral defects, anal atresia, cardiac defects, tracheoesophageal fistula, renal anomalies, and limb abnormalities.

Clinical presentations include copious salivation, choking, coughing, vomiting, and cyanosis coinciding with the onset of feeding[2].

Surgical correction entails resection of fistula and anastomosis of any discontinuous segments. Surgical complications include strictures, leakage, and recurrence of fistula and gastro-oesophageal reflux.

Duodenal atresia is the congenital absence or complete closure of a portion of the lumen of the duodenum. Clinically, it could be seen as intestinal obstruction presenting with abdominal distention and bilious vomiting[4]. The radiography usually reveals the distinctive "double-bubble sign"[5]. The incidence of this anomaly is 1 per 5,000-10,000 live births. Approximately 30% of all infants with duodenal atresia have Down's syndrome. The definitive treatment for duodenal atresia is surgical repair (duodenoduodenostomy).

The baby presented immediately after normal vaginal delivery. He required cardiorespiratory resuscitation in the delivery room and was admitted to the neonatal ICU, intubated and mechanically ventilated. X-ray was performed in NICU and it revealed the coiled nasogastric tube due to the esophageal atresia and the double bubble sign of duodenal atresia.

The baby was scheduled for urgent surgical repair. He was found to have type-C TOF and duodenal atresia.

CONCLUSION

Tracheoesophageal Fistula has a wide array of associated anomalies, most commonly the VACTERL (vertebral defects, anal atresia, cardiac defects, tracheo-esophageal fistula, renal anomalies, and limb abnormalities).

Tracheoesophageal Fistula causes severe feeding difficulties and could cause severe pneumonia. Urgent surgical repair is required to allow adequate feeding.

Potential conflicts of interest: None.

Competing interest: None. **Sponsorship:** None.

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