Through the looking-glass what you found there

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Clinical image

A term-newborn baby developed respiratory distress after his first feed. An orogastric tube failed to reach the stomach. Chest and abdominal radiography showed a coiled tube in the proximal oesophageal pouch, and a gas-containing abdomen. These findings were consistent with oesophageal atresia (OA) and distal tracheo-esophageal fistula (TOF) (Fig.).

Dextrocardia, right-sided gastric bubble and left-sided liver were also noted. The findings suggested combined OA, TOF and situs inversus totalis (SIT).[1,2]

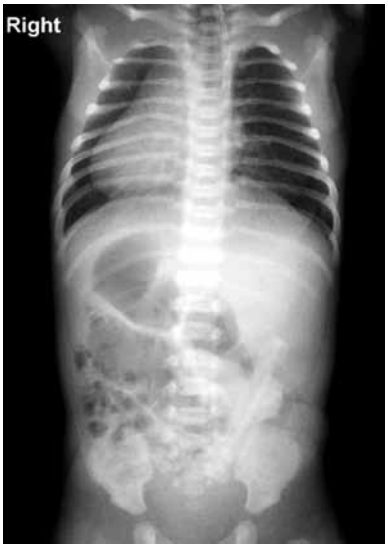

Fig. Plain film showing dextrocardia and the tip of the feeding tube positioned in the dilated upper esophageal pouch. Air in the stomach and throughout the bowel: the gastric bubble was situated on the right side, and the liver on the left.

Echocardiography confirmed dextrocardia, right-sided aortic arch and a small atrial septal defect with normal pulmonary venous connections. Left thoracotomy was performed by extra-pleural approach via the 5th inter-costal space to repair the OA and ligate the TOF. At the 12-month postoperative follow-up, the baby was doing well.

SIT is a rare anomaly with complete right-to-left transposition of the thoraco-abdominal organs. The incidence of SIT is 0.01%. Associated intra-abdominal anomalies are polysplenia, malrotation and duodenal obstruction.[3] Situs inversus may also occur in patients with primary ciliary dyskinesia (PCD). Kartagener syndrome is the combination of situs inversus, chronic sinusitis, and bronchiectasis.[4]

Although rare, the preoperative recognition of SIT and right-sided aortic arch is essential in infants with OA to enable the surgeon to plan the side of thoracotomy, be aware of other gastrointestinal anomalies, and thereby avoid complications that may jeopardize the OA repair.[5] Finally, to assess the long-term prognosis, surgeons should be aware that situs inversus occurs randomly in half the patients with PCD. Late complications of OA such as gastro-esophageal reflux, respiratory tract infection and tracheomalacia can be potential factors aggravating PCD and Kartagener syndrome.

References

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