

Oesophageal Atresia 食道閉鎖

Introduction

- Esophageal atresia (EA) is a congenital medical condition which affects the esophagus (food pipe). The esophagus ends in a blind-ended pouch rather than connecting normally to the stomach.
- Tracheoesophageal fistula (TEF) is a connection between 2 tubes i.e. esophagus and trachea. The breathing tube that connects the nose and the mouth with the lungs is called trachea. Trachea and esophagus should not normally be connected. When there is a fistula connecting the trachea and esophagus, the milk and stomach secretion (acid) can go into the lung and cause damage. (see picture)
- EA and TEF often occur together, and require surgery in a specialized centre.

The procedure

- The aim is:
 - i. to disconnect the abnormal fistula between trachea and esophagus, and
 - ii. reconnect the two ends of esophagus for feeding.
- It involves cutting the fistula and repair of the esophagus.
- This procedure is done while the child is under general anesthesia (asleep and pain-free). The surgeon makes a cut in the right chest between the ribs. The tracheoesophageal fistula is closed off, then the upper and lower portions of the esophagus are sewn together. If the two ends of the esophagus were unable to join, a temporary gastrostomy would be performed.
- It can be done in open or thoracoscopic (key hole surgery) way. Both methods are effective ways of repair. Thoracoscopic surgery is a new advance which only requires three holes for operation. However, not all patients are suitable for thoracoscopic surgery. Surgeons would discuss with parents about the appropriate way of surgery. Thoracoscopic surgery always carries the possibility of conversion to open method.

Risk and complication

In General, there are two types of risks for an operation i.e. Anaesthesia and Surgery

- Risks from anaesthesia
 - i. Problem breathing
 - ii. Reaction to medications
 - iii. Death
- Risks from surgery
 - i. Bleeding
 - ii. Infection
 - iii. Anastomotic leakage
 - iv. Narrowing of repaired esophagus
 - v. Collapsed lung (pneumothorax)
 - vi. Recurrence of fistula between the esophagus and airway
 - vii. Injury to major vessels in the chest
 - viii. Death

Before the procedure

Patients with EA may have other associated problems like heart, kidney or spine problems. Most of these patients are not stable enough to go for surgery immediately after birth, e.g. heart or breathing problems. They need to stay in intensive care unit for stabilization before operation. A tube would also be put in the mouth to prevent secretion / saliva from going into the lung.

After the procedure

Patients would need to stay in intensive care unit after the operation. They may need machine to support their breathing for the initial post-operative period. They would also have a tube inside the chest, and some surgical dressing over the chest wall. They would need a contrast study before oral feeding.

Follow up

They would need long term follow up in clinics. Feeding pattern will be observed. These patients may also have other associated medical problems e.g. feeding problem, softening of airway (tracheomalacia), gastroesophageal reflux disease, congenital heart problem, spine problem or urinary system problem. Other associated problems will need care from other corresponding specialties as well.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information, please contact your doctor.

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