

A Newborn With Isolated Esophageal Atresia Having A Mediastinal Bronchogenic Cyst

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- ✓ A 2-day-old newborn, weighing 1450 g diagnosed as having isolated esophageal atresia (EA) without fistula has been found to have a bronchogenic cyst in the mediastinum. We discuss the possibility of interruption of the esophageal development by mechanical way because of the cyst.

Key words: Esophageal atresia, bronchogenic cyst

- ✓ Fistülsüz tipte izole özefagus atrezisi tanısı alan 1450 g ağırlığındaki 2 günlük yeni-doğanda mediastinal bronkojenik kist saptandı. Bu olgu sunuda kist nedeniyle özefagus gelişiminin mekanik olarak engellenme olasılığı tartışılmıştır.

Key words: Özefagus atrezisi, bronkojenik kist

The incidence of EA is approximately 1 in 4500 live birth⁽¹⁾. Some reports are suggestive of a genetic etiology, but no definite pattern has been established, yet⁽¹⁾. In this report we present a newborn baby with isolated EA without fistula who has a mediastinal bronchogenic cyst, located just distal to the proximal part of the esophagus. We intend to point out that some mediastinal masses such as a bronchogenic cyst like in our case may interrupt the normal embryological development of the esophagus and might play a role as an etiologic factor in the EA process.

CASE REPORT

A 2-day-old newborn, weighing 1450 g referred to our department with the diagnosis of EA because of having frothy secretion from the mouth and the nose. In our examination she had a scaphoid abdomen and nasogastric tube failed to pass through the esophagus. Plain X-ray revealed that there was no gas in the intestine and lumbar hemivertebra. The proximal esophageal pouch

was shown at the level of 2nd thoracal vertebra by radiopaque material. She had undergone thoracotomy with the diagnosis of isolated EA. In the operation when the mediastinum was exposed the proximal esophagus was seen as a pouch and a cyst, 2 cm in diameter was found between the proximal end of the esophagus and the diaphragm. (Fig. 1). We could not see the distal part of the esophagus above the diaphragm. A cystectomy and a gastrostomy were performed, but she developed sepsis and died on the 14th postoperative day. Pathological evaluation revealed that the cyst was bronchogenic in origin (Fig. 2).

DISCUSSION

There are some reports for EA that are suggestive of a genetic etiology^(2,3,4,5,6,7,8). It is believed that an interruption on the 4th fetal week on the elongation and partitioning of the esophageal and the tracheal tubes allows persistence of fistula and clefts between the two channels and permits incomplete development of the esophagus⁽⁹⁾.

We suppose that in some minority of cases of EA mediastinal masses, like a cyst as in our case, may interrupt the developmental process of the esophagus and might play a role as an etiologic factor.

Fig 1: The localization of the cyst between the proximal part of the esophagus and the diafragm.

Fig 2: Ciliated pseudostratified columnar epithelium overlies a wall of fibromuscular connective tissue in a bronchogenic cyst. (H&E stain; original magnification x 400)

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