

- (iatrogenic esophageal perforation)

가

가

가

- (iatrogenic esophageal perforation)

가

(1).

가

(2 - 4).

(interstitial emphysema)

1,090 g

가

가

- 26 - 4

(2, 5, 6).

(retrocardiac pneumomediastinum)

가

2 cc가

3

(5).

가

(7).

(indome - thacin)

6

(Fig. 1A)

(1, 2, 4).

(serosa)

가

(loose areolar tissue)

(Fig. 1B)

가

1 mm

(8).

(2, 3),

(Fig. 1C, 1D)

가

(isolated pneumomediastinum)

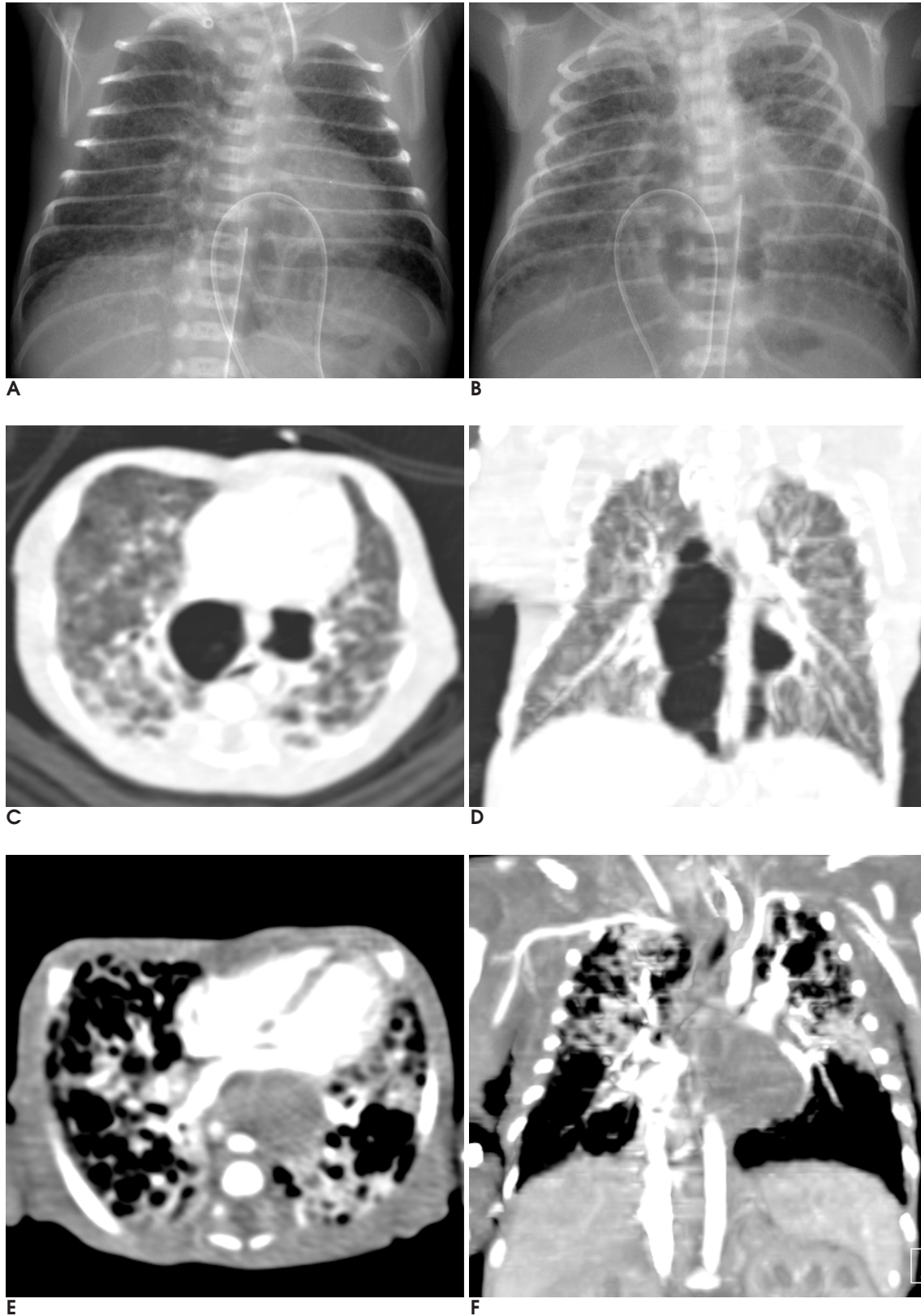


Fig. 1. Chest radiographs and CT scans of a premature infant.

Chest radiograph at 6 days after birth (**A**) shows left paravertebral radiolucency at the diaphragm level. Chest radiograph taken on the next day (**B**) shows extended radiolucency at both paravertebral areas suggesting pneumomediastinum. Axial (**C**) and coronal (**D**) CT scans on the same day show loculated retrocardiac pneumomediastinum surrounding the esophagus and aorta. Axial (**E**) and coronal (**F**) images, which were taken 7 days after initial CT, show completely absorbed pneumomediastinum and a soft tissue mass in the same region of the retrocardiac area.

가 6

가
(Fig. 1E, 1F)

2.6 cm×2.4 cm

가

가

(retrocardiac pneumomediastinum)

가

(perivascular interstitial tissue)

(7).

가

(extraalveolar air)가

(7).

가 93

. Amodio (5)

(1, 4).

(1, 6, 8, 9).

가

(6).

(6).

(hiatal hernia)

(intrathoracic stomach),

(intracardiac air)

(10).

가

가

(2).

(1, 5, 6, 9).

가

(drooling)

(6).

(1, 9).

가

가

가

(2-6).

(1, 4, 8).

(3, 4).

가 (2,

3).

(retroperitoneal air)

(2).

(9).

(6).

(2).

(3).

가

가

가

가 (2, 6).

30%

(6).

가 (2, 4, 6).

(6).

(2).

(4).

1. Eklof O, Lohr G, Okmian L. Submucosal perforation of the esophagus in the neonate. *Acta Radiol Diagn* 1969;8:187-192
2. Grunebaum M, Horodniceanu C, Wilunsky E, Reisner S. Iatrogenic transmural perforation of the oesophagus in the preterm infant. *Clin Radiol* 1980;31:257-261
3. Clarke TA, Coen RW, Feldman B, Papile L. Esophageal perforations in premature infants and comments on the diagnosis. *Am J Dis Child* 1980;134:367-368
4. Mollitt DL, Schullinger JN, Santulli TV. Selective management of iatrogenic esophageal perforation in the newborn. *J Pediatr Surg* 1981;16:989-993
5. Amodio JB, Berdon WE, Abramson SJ, Oh KS, Oudjhane K, Wung JT. Retrocardiac pneumomediastinum in association with tracheal and esophageal perforations. *Pediatr Radiol* 1986;16:380-383
6. Blair GK, Filler RM, Theodorescu D. Neonatal pharyngoesophageal perforation mimicking esophageal atresia: clues to diagnosis. *J Pediatr Surg* 1987;22:770-774
7. Rosenfeld DL, Cordell CE, Jadeja N. Retrocardiac pneumomediastinum: radiographic finding and clinical implications. *Pediatrics* 1990;85:92-97
8. Stapp J, Stewart DL, Eberly S. Atypical iatrogenic perforation of the distal esophagus in an ELBW neonate. *Clin Pediatr* 2001;40:637-638
9. Lee SB, Kuhn JP. Esophageal perforation in the neonate. A review of the literature. *Am J Dis Child* 1976;130:325-329
10. Pollack A, Lask P, Kassner EG, Wood BP. Radiological case of the month. Retrocardiac pneumomediastinum. *Am J Dis Child* 1992;146:831-832

Mediastinitis and Pneumomediastinum in a Preterm Infant with Iatrogenic Esophageal Perforation: A Case Report¹

Min Ji Kim, M.D., Ok Hwa Kim, M.D.

¹*Department of Diagnostic Radiology, College of Medicine, Ajou University*

Iatrogenic esophageal perforation is very rare in pediatric patients. Preterm infants or low birth weight babies are more susceptible to esophageal perforation due to performing frequent tracheal intubation and/or gastric tube installation. When perforation occurs, it may present as pneumothorax and pulmonary interstitial emphysema. However, isolated pneumomediastinum without pneumothorax is a rare finding. Furthermore, the mediastinitis after esophageal perforation is rare complication, but it can be a critical complication. Therefore, making an immediate and precise diagnosis as well as instituting proper treatment of esophageal perforation and mediastinitis are important. To the best of our knowledge, few reports have described mediastinitis after pneumomediastinum that was secondary to esophageal perforation. We describe here the radiologic findings of a rare case of mediastinitis after pneumomediastinum in a preterm infant with esophageal perforation.

Index words : Esophagus, perforation
Infants, newborn
Mediastinitis
Pneumomediastinum
Pneumothorax

Address reprint requests to : Ok Hwa Kim, M.D., Department of Diagnostic Radiology, Ajou University College of Medicine, Woncheon-dong, Youngtong-gu, Suwon 443-721, Korea.
Tel. 82-31-219-5828 Fax. 82-31-219-5862 E-mail: kimoh@ajou.ac.kr