Chest Tube Malposition in Diaphragmatic Injury

Kang Kook Choi, Min A Lee, Gil Jae Lee, Byung Chul Yu,
Dae Sung Ma, Yang Bin Jeon, Jung Nam Lee

Department of Trauma Surgery, Gachon University Gil Medical Center, Incheon, Korea

In blunt trauma, diaphragmatic injuries are often overlooked. The repair of a diaphragmatic injury is not technically demanding in the acute phase. However, delayed diagnosis can cause serious complications such as respiratory compromise and incarceration of abdominal organs. We report a left diaphragmatic injury accompanied by herniation of the stomach.

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Key Words: Chest Tubes; Diaphragm; Injury; Thoracostomy; Hernia

CASE

A 67-year-old man was transferred to the emergency department by paramedics. The patient was involved in a traffic accident while driving and was entrapped in the crushed car when the paramedics arrived at the scene of the accident. The patient's mental status was stupor on arrival to the trauma center. His initial blood pressure could not be determined. His heart rate was 86/min, respiratory rate was 32/min, and body temperature was 35.4°C. Endotracheal intubation was performed immediately. During resuscitation, bilateral tube thoracostomy was performed for bilateral chest wall crepitus. After the tube thoracostomy, chest radiography was performed (Fig. 1.). Chest computed tomography (CT) performed after stabilization of blood pressure (Fig. 2. and 3.) showed bilateral hemopneumothorax. The left chest tube was placed in the abdominal cavity (Fig. 4.).

Fig. 1. Chest anteroposterior view radiograph shows elevated left diaphragm and unfavorable chest tube position.

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Correspondence to: Jung Nam Lee, Department of Trauma Surgery, Gachon University Gil Medical Center, 21, Namdong-daero, 774 Beon-gil, Namdong-gu, Incheon 21565, South Korea
Tel: 82-32-460-3010, Fax: 82-32-460-2372, E-mail: jnlee@gilhospital.com

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Fig. 2. Chest computed tomography shows bilateral hemo-pneumothorax.

Fig. 3. Chest computed tomography shows left chest tube malposition.

DISCUSSION

Chest tube malposition can occur in diaphragmatic injury. Clinical suspicion is important for the diagnosis of diaphragmatic injury (1, 2).

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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