Cardiac Tamponade During Esophagoscopy

Esophagopericardial fistula is a rare and life-threatening complication of malignant esophageal disease (1,2). In conjunction with esophagoscopy, it often occurs after dilation (3). We describe here the case of a 49-year-old man who was treated with radiotherapy and chemotherapy for an adenocarcinoma of the right inferior bronchial lobe.

Initial esophagoscopy showed extrinsic compression at 30 cm (from the incisors). After radiotherapy, the patient's moderate dysphagia for solids improved, but mild mediastinal pain persisted. Two months later, despite a normal chest radiograph, a CT scan demonstrated a relapse, with a tumor involving the esophagus, and esophagoscopy showed an ulcerous lesion (37–43 cm). Endoscopic ultrasonography was performed after gentle dilation (14 mm), and laser therapy was applied to the lesion. One month later, dysphagia recurred, prompting a repeat endoscopy. The chest radiograph and electrocardiogram were normal. During esophagoscopy, which showed a deep ulcer (8 mm in size) at 30 cm, the patient suddenly became unconscious. He recovered spontaneously, but complained of chest pain and dyspnea with cyanosis. Hypotension, tachycardia, paradoxical pulse, and muffled heart sounds were noted. A chest radiograph and CT scan (Figure 1) confirmed a pneumopericardium. A pericardial drain removed about 300 ml of air; the dyspnea and cyanosis then disappeared, and the patient's hemodynamic status immediately improved. Antibiotics and parenteral nutrition were started. The pericardial drain could be removed after two days without a relapse of the tamponade. Surgery was refused. Three weeks later, a contrast swallow examination confirmed the persistence of the fistula (Figure 2). The patient died two weeks later.

In this case, no dilation was applied, and the tamponade was immediate, in contrast to the other reported cases (1,3). The distal tip of the endoscope remained in front of the lesion in order to obtain a photograph, and this may have resulted in rapid and massive inflation of the pericardium, with sudden air tamponade.

*P. Bachmann, J.-Y. Ranchère, F. Desseigne, P. Kaemmerlen,
B. Gordiani, F. Mornex*
Léon Bérard Cancer Center, Lyons, France

References

1. Miller WL, Osborne MJ, Sinak LJ, et al. Pyopneumopericardium attributed to an esophagopericardial fistula: report of a survivor and review of the literature. *Mayo Clin Proc* 1991; 66: 1041–5.
2. Cyrlak D, Cohen AJ, Dana ER. Esophagopericardial fistula: causes and radiographic features. *Am J Roentgenol* 1983; 141: 177–9.
3. Mellon JK, Gavin IF, Bowe PC, et al. Oesophago-pericardial fistula and cardiac tamponade after oesophagoscopy. *Eur J Cardiothorac Surg* 1988; 2: 282–3.

Figure 1: CT scan showing pneumopericardium before pericardial drain insertion.

Figure 2: A contrast swallow examination (left profile chest radiograph) with iopodol-iopydone solution (Hytrast), showing the persistence of the esophagopericardial fistula.

Corresponding Author

P. Bachmann, M.D.
Centre de Lutte Contre le Cancer Léon Bérard
28, rue Laennec
69 373 Lyon
France
Fax: +33-78-782713