Right thoracic stomach mimicking pleural empyema in an elderly man

An 82-year-old man visited our outpatient department due to fever and cough for 5 days. He denied significant epigastralgic pain or heart burn in the past. The physical examination was unremarkable and the laboratory data were within normal limits. Chest radiograph (CXR) showed opacity with an air-fluid level in the right lower hemithorax behind the right heart and obscuring the right hemidiaphragm (Figure 1). Chest computed tomography (CT) revealed that the gastroesophageal junction was above the diaphragm, the stomach lay in the right lower hemithorax with a depressed right hemidiaphragm and the greater curvature of the stomach adjacent to the right chest wall (Figure 2). Sliding hiatal hernia with omentum and stomach herniation with non-volvulus organoaxial rotation to the right hemithorax was confirmed.

The right thorax stomach is a very rare congenital abnormality. It may be attributed to congenital dextrogastria or congenital hiatal hernia with organoaxial torsion. The right side hiatal stomach hernia may have male predominance and family history. Unlike other congenital diaphragm defects of the right side, the right thoracic stomach is not usually associated with any other congenital diaphragm defects. The right thoracic stomach is a very rare congenital abnormality. It may be attributed to congenital dextrogastria or congenital hiatal hernia with organoaxial torsion. The right side hiatal stomach hernia may have male predominance and family history. Unlike other congenital diaphragm defects of the right side, the right thoracic stomach is not usually associated with any other congenital diaphragm defects.
infancy, right hemithorax stomach herniation is not life threatening and most sliding hiatal hernia are asymptomatic. It is often incidentally discovered later in childhood or adulthood, by CXR examination. From the initial CXR finding, the differential diagnosis includes Morgagni’s hernia, Bochdalek’s hernia, lung abscess, empyema or mass lesion. Chest CT is a helpful tool to assist the diagnosis.

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References