A Very Rare Case of Malignant Pleural Effusion Caused by Esophageal Cancer

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Case Blog

An 82-year-old man was admitted to our hospital from a geriatric clinic because of recurrent pleural effusion. Physical examination showed the patient was afebrile and haemodynamically stable with no evidence of acute respiratory distress. Laboratory investigations indicated a mild anemia with 11.4 g/dl (13 g/dl to 18 g/dl). CRP was slightly raised with 13.7 mg/l (<5 mg/l) so was sodium with 146 mmol/l (136 mmol/l to 145 mmol/l) and potassium with 4.8 mmol/l (3.4 mmol/l to 4.5 mmol/l). Chest X-ray revealed a right lung pleural effusion, pleural aspiration showed an exsudate with elevated LDH of 580 U/l (0 U/l to 100 U/l). The diagnostic thoracoscopy confirmed the diagnosis of a malignant effusion and a pleurodesis was performed after obtaining multiple biopsies from the inner chest wall and diaphragm. Histology revealed a squamous cell carcinoma. Because of unknown primary we carried out a gastroscopy, where a malignant tumor was found in the upper part of the esophagus as the cause of the pleural effusion corresponding to the prior obtained histological results (Figure 1).

Figure 1: A: Chest X-ray shows a right pleural effusion; B: Medical thoracoscopy via semiflexible pleuroscope. After complete removal of the pleural fluid, a systematic exploration of the chest revealed fibrous bands (likely caused by multiple prior needle aspiration) and malignant nodules on the diaphragm; C: Endoscopic view on the esophageal ulcerated and bleeding tumor after taking biopsies; D: H&E shows squamous cell carcinoma of the oesophagus. Note the presence of keratin formation, characteristic of well-differentiated tumor.