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Case Report

Case Report for Delayed Post-traumatic Hematomediastinum

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ABSTRACT
Hematomediastinum caused by mediastinal injury is often found to be difficult to diagnose until clinical presentation, and no cases of delayed onset have been reported. A 35-year-old patient who developed mediastinal hematoma 9 days after presentation was treated. Radiography and CT scan were used for diagnosis and hematoma was removed by mediastinal puncture.

Keywords: Mediastinal Hematoma, Chest Trauma, Mediastinal Puncture.

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INTRODUCTION

Mediastinal hematoma is a rare but potentially life-threatening complication of thoracic trauma. It usually occurs secondary to high-energy blunt chest trauma, vascular injury, or iatrogenic causes such as invasive procedures.[1,2] Clinical presentation is often nonspecific and may include chest pain, dyspnea, or cough, while some patients remain asymptomatic until the hematoma enlarges and compresses adjacent mediastinal structures.[3] Because of this, early diagnosis can be challenging and often requires imaging modalities such as chest radiography, Computed Tomography (CT), or transthoracic echocardiography.[4,5]

Most mediastinal hematomas are detected immediately after trauma; however, delayed onset is extremely uncommon and rarely reported in the literature.[6,7] The underlying mechanisms may include slow bleeding from small vascular branches, rupture of vascular aneurysms, or secondary bleeding from initially sealed vessels.[8,9] Prompt recognition is crucial, as delayed hematomas may mimic other mediastinal masses and can lead to serious complications if untreated.[10]

CASE REPORT

A 35-year-old man was referred to the thoracic surgery department for a chest bruise due to a car accident. The patient complained of chest pain, and dyspnea, with normal blood pressure 120/80 mmHg, pulse rate 90/min, body temperature 37°C, respiratory rate 24/min, BMI-20.1, and normal spinal cord condition. The patient was healthy, did not like drinking alcohol, or smoking, and did not take any medications. Physical examination and biochemical examination showed no abnormalities. Radiography showed minimal fluid in the bilateral costotransverse area, and transthoracic echocardiography showed no mediastinal pathology. Intrapleural puncture resulted in a 10-mL subhaematous fluid on both sides. From the 6th day of hospitalization, the patient complained of a dry cough with a temperature of 38°C, which is followed by an intravenous injection of analgesic, hemostatic, and ciprofloxacin about 400 mg/day for the purpose of infection prevention. To deal with these symptoms of the patient, an injection of levofloxacin 800 mg/day, and oral administration of acetylcysteine tablets 750 mg/day were given for 2 days which resulted in no fever, no cough, and a significant reduction in chest pain. On the 9th day of hospitalization, however, the patient again complained of frequent dry cough and chest pain. Auscultation revealed dry rales in the right lung middle field and the tests were performed. An electrocardiogram was normal, chest X-ray showed a right-sided enlarged shadow of the mediastinum, and a strip of adhesions that crossed the right middle lung field (Figure 1). A CT chest showed a mass of fluid below a solid density of 69 × 72 mm in the mediastinum and dilated to the right. Transthoracic echocardiography showed a fluid mass of 80 × 64 mm around the right parasternal four-ribbed space. Immediate mediastinal puncture aspiration under transthoracic echocardiography was undergone. Thus, 250 mL of hemorrhagic fluid of carcinoma was removed from the four intercostal spaces on the parasternal line twice over a 2-days period and was no longer aspirated.

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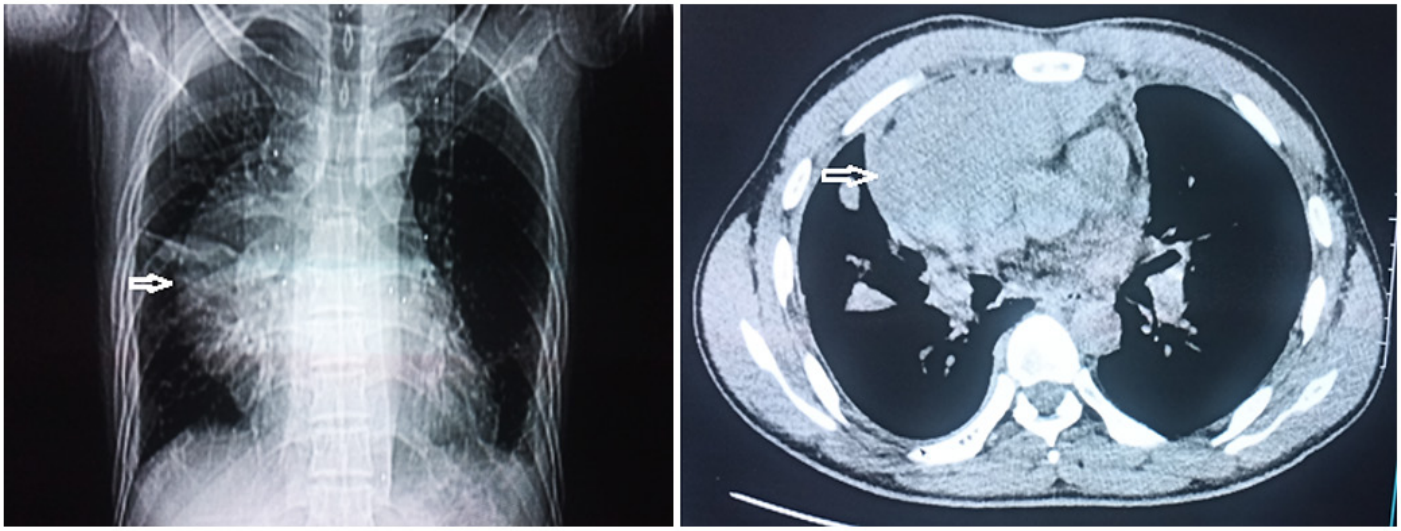

Figure 1: (a) Chest radiograph showing enlargement of the right mediastinum (b) Chest Computed Tomography (CT) scan showing a large.

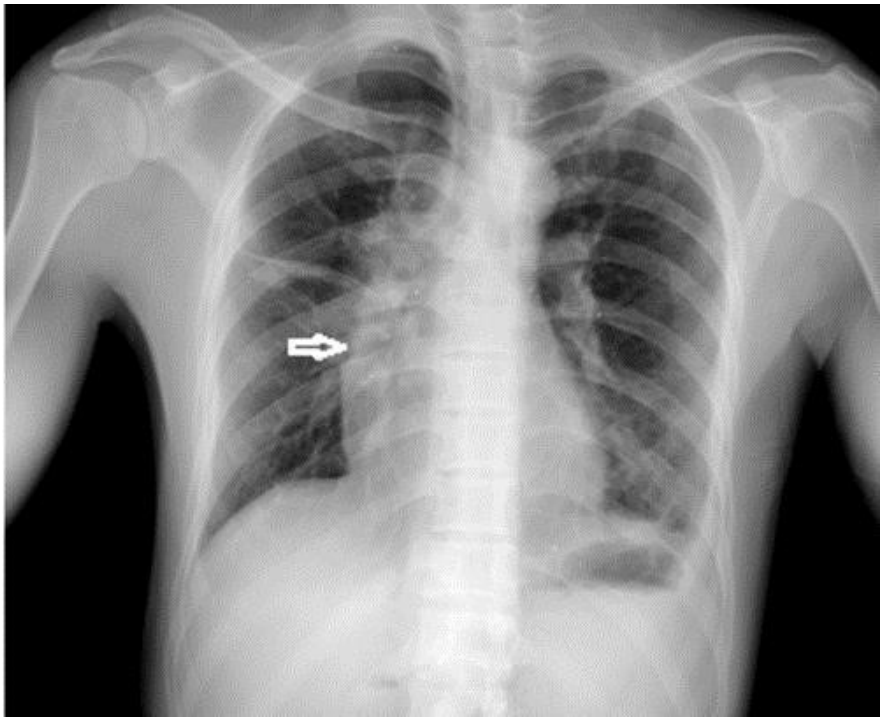

Figure 2: Chest radiograph showing thickening and reduction of the right mediastinum after treatment.

Subsequently, chest X-ray showed a resolution of the mediastinal hematoma that had previously been seen (Figure 2). In addition, the patient's symptoms, including chest pain, dyspnea and cough, were relieved and his general condition improved.

DISCUSSION

The incidence of mediastinal hematoma as a complication of thoracic trauma is high, but the delayed form is rare. The cause seems to be due to ruptured branch aneurysm of the thoracic aorta. It is important to establish the diagnosis and follow up treatment with continuous follow-up of the chest trauma patient and prompt and necessary imaging following clinical presentation.

CONCLUSION

We experienced a delayed traumatic right mediastinal hematoma complicated 9 days after chest trauma, which was resolved by mediastinal aspiration. The follow-up of a trauma patient with a chest is very important for the diagnosis and treatment of complications.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

ABBREVIATIONS

BMI: Body Mass Index; **CT:** Computed Tomography.

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