

# A pitfall in chest imaging

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**Key message**

The key feature of Poland syndrome is asymmetry in the chest wall. Clinicians should be alert to abnormalities of the chest wall as well as the lungs if there is abnormal chest radiograph lucency.

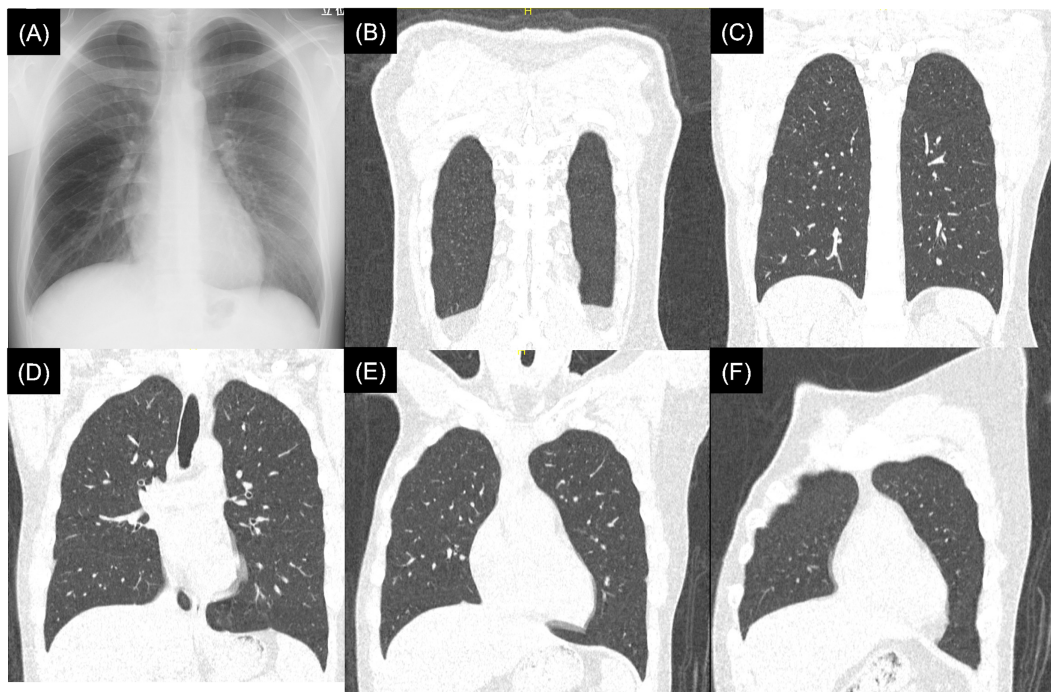
**KEYWORDS**

medical checkup, Poland syndrome, respiratory medicine

## CLINICAL IMAGE

A healthy, 22-year-old man was referred to our clinic for investigation of an abnormal chest shadow detected during a medical checkup. Auscultatory findings were normal.

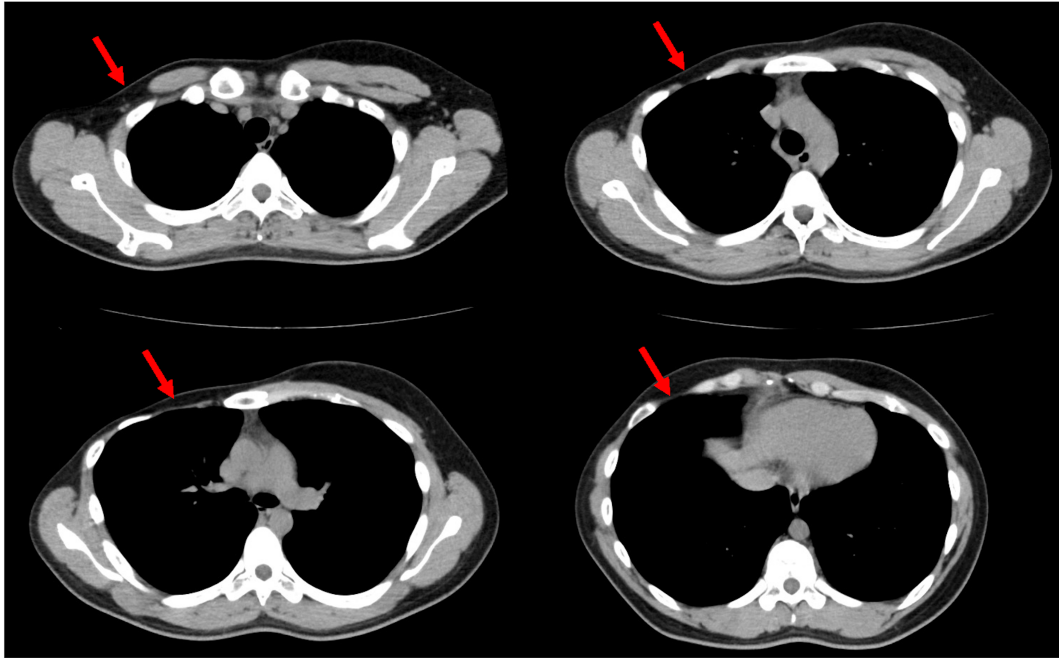
His thorax and nipple on the right side were hypoplastic; however, there were no obvious abnormalities in the ipsilateral upper limb. Chest radiography showed hyperlucency in the right lower lung field (Figure 1A). Computed tomography did not show any abnormalities in the lung fields



**FIGURE 1** Findings from chest radiography and computed tomography in the lung fields. (A) Chest radiography shows hyperlucency in the right lower lung field. (B–F) Computed tomography does not show any abnormalities in the lung fields.

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**FIGURE 2** Findings from mediastinal window of computed tomography (CT). CT reveals defects in the right pectoralis major and minor muscles, and thinning of the right intercostal muscles (arrow).

(Figure 1B–F), but revealed defects in the right pectoralis major and minor muscles, and thinning of the right intercostal muscles (Figure 2). As no one in his family presented with similar symptoms, the patient was considered to have sporadic Poland syndrome. Poland syndrome is a rare congenital disorder of the musculoskeletal system.<sup>1</sup> The typical case presents with hypoplasia or aplasia of the pectoralis major muscle and varying degrees of ipsilateral limb abnormalities. The most accepted hypothesis regarding the aetiology of Poland syndrome is disruption of the development of the proximal subclavian artery and its branches supplying the pectoralis major muscle around the 6th week of gestation.<sup>1</sup> This is considered to result in insufficient blood flow to the distal limbs and the pectoralis major region, causing localized tissue loss. Clinicians should be alert to abnormalities of the chest wall as well as the lungs if there is abnormal chest radiograph lucency.

#### AUTHOR CONTRIBUTIONS

MH wrote the manuscript. MH, MA, YT and TI contributed to the data collection. All authors read and approved the final manuscript.

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#### CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

#### DATA AVAILABILITY STATEMENT

Research data are not shared.

#### ETHICS STATEMENT

The authors declare that appropriate written informed consent was obtained for the publication of this manuscript and accompanying images.

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#### REFERENCE

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