

Answers to the Medical Quiz

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A1. The name of the X-ray view is anteroposterior plain chest radiograph.

A2. There is hyperlucency over mid and lower zones of the right lung. A band-like soft tissue density was oriented horizontally below the right clavicle coursing towards right arm. The lung fields were essentially clear. Azygos fissure could be seen, pleural cavities were clear, heart and aorta were normal, diaphragm and bony thorax were normal but right axillary fold was absent.

A3. Congenital absence of the sternocostal head of the right pectoralis muscle.

DISCUSSION

The patient is having congenital absence of the sternocostal head of the right pectoralis muscle as seen in the radiograph. However, on clinical examination, he was noted to have flat right breast with flat atrophic nipple and areola with absent right axillary fold and a high horizontal fold. This confirms the diagnosis of Poland's syndrome.

Alfred Poland in 1841 described an anomaly which includes partial or complete absence of pectoralis along with ipsilateral hand anomalies¹. The incidence varies in various studies¹. Right side of the body is affected three times more than the left².

The cause of Poland's syndrome is unknown; three mechanisms were described as the cause for this syndrome. The most accepted one is the vascular compromise which was thought to occur in first trimester when the subclavian artery get compromised resulting in arrested growth of the supplied areas. Other described mechanisms are genetic inheritance and teratogenicity^{3,4}.

Poland's syndrome could be associated with ipsilateral hand anomalies, ipsilateral breast and nipple hypoplasia, and/or aplasia, deficiency of subcutaneous fat and axillary hair, hypoplasia of the rib cage, dextrocardia, encephalocele, microcephaly, neural tube defect, liver, renal and biliary duct anomalies, platelet disorders, leukemia and lymphoma. Other muscles could be involved: supraspinatus, infraspinatus, deltoid, serratus anterior, intercostals, latissimus dorsi and pectoralis minor¹⁻¹⁰.

CONCLUSION

Although, Poland's syndrome is not common, knowledge of its clinical presentation and imaging features are of great help to physician who may encounter this in his/her practice. It is important to avoid misdiagnosing it with pneumothorax.

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